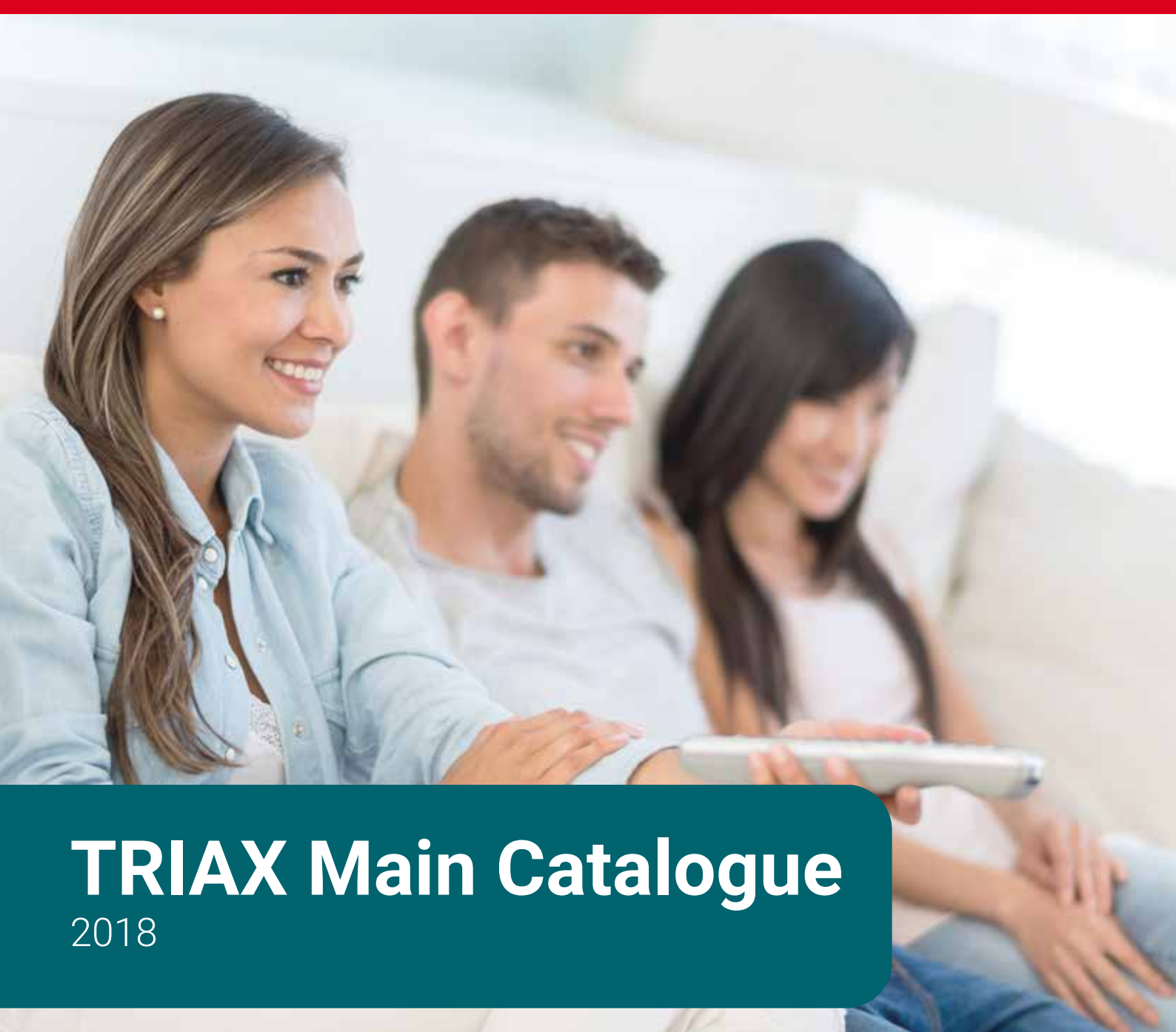




TRIAX

connecting the future



TRIAX Main Catalogue

2018



Reliability is our business. It's what we stand for.

For nearly 70 years, TRIAX has strived to be your preferred partner for all your connectivity needs. We're proud to provide reliable solutions for the present, while connecting our customers to the future.

At the forefront of technological trends and developments, we're with you each step of the way, from installing home connections and business critical hospitality solutions, to realising complex, large scale integrations.

Ready for any job at hand, our products are available individually or as part of tailor-made

solutions. From aerials and dishes, to headends, outlets, cables and beyond – we make connectivity easy, ensuring you live up to your own customer promises.

Rest assured that at TRIAX, reliability and innovation run through the core of everything we do, from product development to our friendly, efficient service and support.

So enjoy browsing through this catalogue for an overview of our full product range. And of course, we're always just a phone call away for more inspiration towards your next solution.

Contact TRIAX

To place an order or consult one of our experts, contact us via:

Phone: +45 76 82 22 00

e-mail: triax@triax.com

Or pay us a visit online at www.triax.com, where you'll find a wealth of further material about our products and solutions.

Aerials - LTE aerials

Mast amplifiers, stop filters, combiner, LTE filters & power supplies

Indoor multiband amplifiers

Programmable amplifiers

TERRESTRIAL
RECEPTION

TD satellite dishes, DAP fibreglass dishes

Fibre optic network components (Re-converter, multiswitches, couplers, cable & accessories)

Coax network components (LNB units, brackets, stand-alone and Cascadable multiswitches, DiSEqC switches)

Mounting accessories

SATELLITE
& FIBRE
RECEPTION

Hybrid Fibre Coax optical transmitter (HFC)

Hybrid Fibre Coax receiver and nodes (HFC)

Coax Broadband Distribution Amplifiers

Coax Apartment Amplifiers

catTV system

CABLE TV
(CATV)

Headend - TDX

- TDH800

CAS system

Modulators

HEADENDS
CAS SYSTEM
MODULATORS

Coax cables - indoor, Outdoor, Fly leads, Connection, HDMI and CAT cables

F connectors

IEC connectors

Tools & accessories

Power cables and electricity articles

CABLES &
CONNECTORS

Outlets - CATV modem multimedia outlets

- MATV/SMATV TV/radio, TV/radio/sat outlets

- SAT, SAT/TV/Data outlets

Taps & Splitters - Bonita, Platinum, Gold and Silver series

- Accessories

OUTLETS
TAPS & SPLITTER

EoC - Internet over TV cables

- Ethernet over Coax adaptors

SAT-IF to IPTV - SAT>IP solution

INHOUSE
CONNECTIVITY

Cameras - TVI 720 (1.3 MP) - Domes Fixed, Varifocal Dome, Fixed Bullet, Varifocal Bullet

- TVI 1080 (2.0 MP) - Domes Fixed, Varifocal Dome, Fixed Bullet, Varifocal Bullet

- IP (2.0 & 4.0 MP) - Fixed Turret, Varifocal Dome, Fixed Bullet, Varifocal Bullet

Video Recorders - DVR analogue, HD-TVI & IP, NVR network for IP cameras

Accessories

SURVEILLANCE
(CCTV)

Satellite meters - MCT series & accessories

- SPM series & accessories

Satellite, TER, Cable - CPM 1700 series & accessories

- UPM 2300 and UPM 3500 series & accessories

Optical power metre - TOM & TSO

INSTRUMENTS
TOOLS &
CABINETS

Introduction to terrestrial aerials, basic technical requirements & data in the catalogue

Planning & installation, earthing

Frequency range of waves, TV standards, Frequency range & Channels

Carrier frequencies, colour and broadcasting

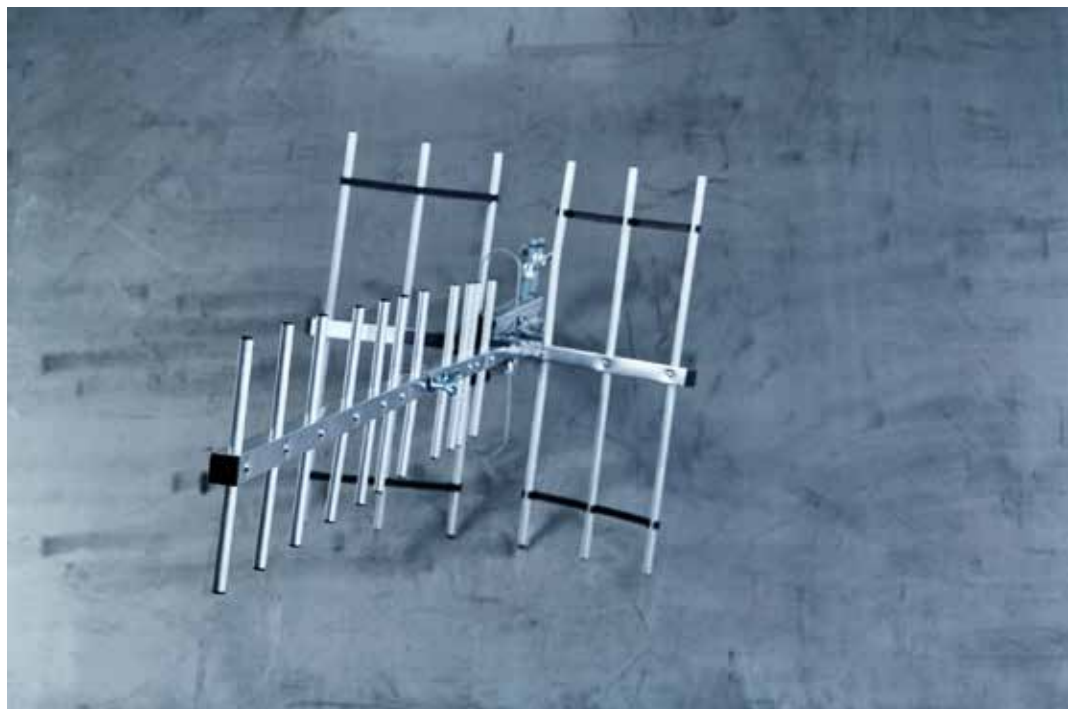
Signal level: mV to dBµV - dBµm to mW

TECHNICAL
APPENDIX

TRIAX[®] Terrestrial reception

a complete range of components for TV reception

CONTENT	PAGE
Aerials	
■ DIGI	8-11
■ UNIX	12-15
■ DIGI & Grid	14-15
■ Combi Aerials	16-17
■ FM & DAB	18-19
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TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

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CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® Aerials and Mast electronics

a complete range of solutions for terrestrial TV reception



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

Reliability from rooftop to outlet

Invest in a partner ready to grow your business. When installing aerials and electronics, you can rely on TRIAX solutions to perform exactly as you expect them to. Beware of cheaper components that might include surprises and instability.

TRIAX solutions can help protect TV signals from 4G/LTE mobile broadband interference

The 4G/LTE technology operating in the 694-862 MHz frequency range may cause problems for installed DTT and CATV (cable TV) networks.

Worldwide frequency bands traditionally used for DTT (Digital Terrestrial TV) reception are gradually being discontinued for DTT use in favour of emerging high speed mobile broadband services such as LTE (Long Term Evolution) and/or LTE Advanced technology.

Ensure the best picture quality

The single most important part of an installation is the quality of the incoming signals. We recommend you use an aerial that ensures the optimum signal levels depending upon the geographical location of the installation. It is not recommended to compromise on the size of the aerial, as the system is dependent on high quality signals from the outset.

The reception systems require the correct size of LTE aerial, such as the TRIAX UNIX or DIGI range, combined with the best low noise mast amplifier and filters.



The LTE-protected-by TRIAX icon is displayed on products that complies with 4G/LTE protection requirements.



Selection of 5 ranges

aerials, amplifiers, filters, combiners and power supplies



UHF aerials for 700 MHz & 800 MHz LTE

TRIAx aerials are manufactured to protect you from interference in the entire LTE mobile broadband spectrum. Our range of terrestrial aerials consist of FM, DAB, VHF, UHF, Combi and compact UFO aerial.

Mast amplifiers for 700 MHz & 800 MHz LTE

Mast electronics including easy-to-mount high-performance range of mast amplifiers with F-connector. The MFA 611 - MFA 621 -MFA 656 mast amplifiers are wideband amplifiers featuring 1-2-3 inputs and 1-2 outputs and cut off channels E61-69 and E49-59.



Power supplies with 700 MHz & 800 MHz LTE filter

TRIAx IFP Power supplies with LTE filter are indoor power supplies for masthead amplifiers, providing a 'last defence' filter function protecting against local 4G/LTE interference. Easy installation F-connectors for maximum shielding. LTE filter 6-23 dB, (694-862MHz).

Stop filters for 700 MHz & 800 MHz LTE

TRIAx high performance stop 4G/LTE filters protect you from interference in the entire LTE mobile broadband spectrum on DVB-T signals, and also protect against overload from strong LTE signals (base station transmitters) on antenna amplifiers, TV tuners and set-top boxes.



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® Digi 6 & 10 - Band IV/V aerials

designed for superior TV reception



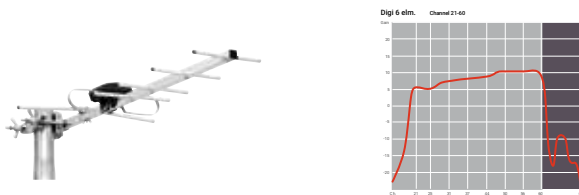
- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX



Common features

- 6, 10 elements UHF antenna with 18 mm boom
- Semi-assembled – saves time during installation
- Unparalleled gain and rejection performance
- Designed to receive DTT (Digital Terrestrial TV) signals in 470-694 and 470-790 MHz range
- Rejects 4G/LTE signals in 694-790 and 790-862 MHz range using TRIAX's "Antenna Low Pass System"
- Improved weather proof dipole house with F-connector for optimal TV-signal performance
- Resistant to extreme weather conditions
- Adjustable rear mast brackets for masts up to 60 mm.

DIGI 6 - LTE 800 MHz

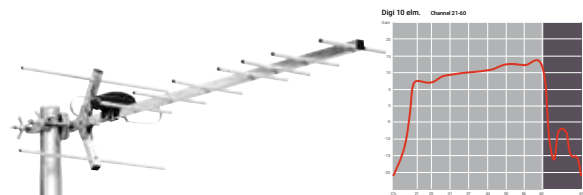


DIGI 6, LTE 800, ch 21-60
(Color box)

Art. No. 105400
EAN Number
5702661054006



DIGI 10 - LTE 800 MHz



DIGI 10, LTE 800, ch 21-60
(Color box)

Art. No. 105410
EAN Number
5702661054105



DIGI 6, LTE 800. ch 21-60
(Poly bag)

Art. No. 105401
EAN Number
5702661054013



DIGI 10, LTE 800, ch 21-60
(Poly bag)

Art. No. 105411
EAN Number
5702661054112



TRIAX® Digi 6 & 10 - Band IV/V aerials

designed for superior TV reception

DIGI 6 - LTE 700 MHz

**DIGI 6, LTE 700, ch 21-48
(Color box)**

Art. No. 105450

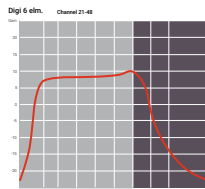
EAN Number
5702661054501



**DIGI 6, LTE 700, ch 21-48
(Poly bag)**

Art. No. 105451

EAN Number
5702661054518



DIGI 10 - LTE 700 MHz

**DIGI 10, LTE 700, ch 21-48
(Color box)**

Art. No. 105460

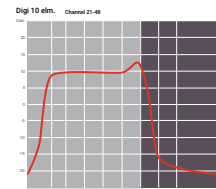
EAN Number
5702661054600



**DIGI 10, LTE 700, ch 21-48
(Poly bag)**

Art. No. 105461

EAN Number
5702661054617



Type:	DIGI 6, LTE 800 Ch 21-60	DIGI 6, LTE 700 Ch 21-48	DIGI 10, LTE 800 Ch 21-60	DIGI 10, LTE 70 Ch 21-48
Art. no.	105400/105401	105450/105451	105410/105411	105460/105461
FREQUENCY				
Band (frequency)	BIV/V	BIV/V	BIV/V	BIV/V
Channels	21...60	21...48	21...60	21...48
Frequency range UHF	470...790MHz	470...694MHz	470...790MHz	470...694MHz
LTE protected	800	700	800	700
GAIN				
Gain @ 474 MHz (Ch. 21)	5,0dBi	7.8dBi	6.5dBi	9.5dBi
Gain @ 538 MHz (Ch. 29)	7dBi	dBi	7,5dBi	dBi
Gain @ 606 MHz (Ch. 37)	9,0dBi	8.7dBi	10,0dBi	9.2dBi
Gain @ 730 MHz (Ch. 53)	10,0dBi	dBi	12.5dBi	dBi
Gain @ 786 MHz (Ch. 60)	10,0dBi	dBi	13dBi	dBi
Gain	dBi	10 maxdBi	dBi	13 maxdBi
LOSS				
Rejection @ 758 MHz (Ch. 56)		7.8dB		4.3dB
Rejection @ 788 MHz (Ch. 60)		8.7dB		7.6dB
Rejection @ 811 MHz (LTE D1)	5,0dB		5,0dB	
Rejection @ 821 MHz (LTE D6)	10,0dB		11,0dB	
Rejection @ 832 MHz (LTE U1)	12,0dB		11,0dB	
Rejection @ 862 MHz (LTE U6)	10,0dB		8,0dB	
ELECTRICAL				
Impedance	75Ω	75Ω	75Ω	75Ω
Front to back ratio - horisontal	17dB	14dB	21dB	15dB
CONNECTORS				
Connector Type	F-female	F-female	F-female	F-female
MECHANICAL				
Product Length	718mm	655mm	1015mm	1085mm
Product Width	260mm	330mm	350mm	480mm
Main Material	Aluminium	Aluminium	Aluminium	Aluminium
Packing QTY	10	1	10	10
Beamwidth horisontal	± 25°	±40°	± 23°	±30°
Elements	6	6	10	10
Windload (N)	14N	14N	22N	22N
Net Weight	0,510kg	0,520kg	0,710kg	0,730kg
Bracketry	Mast	Mast	Mast	Mast

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX[®] Digi 14 & 18 - Band IV/V aerials

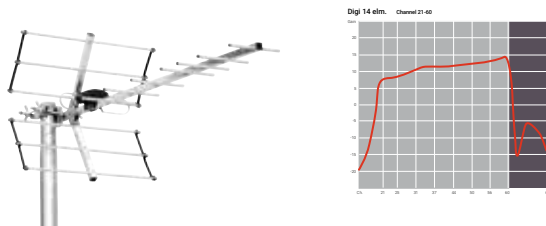
designed for superior TV reception



Common features

- 14 and 18 elements UHF antenna with 18 mm boom
- Semi-assembled – saves time during installation
- Unparalleled gain and rejection performance
- Designed to receive DTT (Digital Terrestrial TV) signals in 470-694 and 470-790 MHz range
- Rejects 4G/LTE signals in 694-790 and 790-862 MHz range using TRIAX's "Antenna Low Pass System"
- Improved weather proof dipole house with F-connector for optimal TV-signal performance
- Resistant to extreme weather conditions
- Adjustable rear mast brackets for masts up to 60 mm.

DIGI 14 - LTE 800 MHz



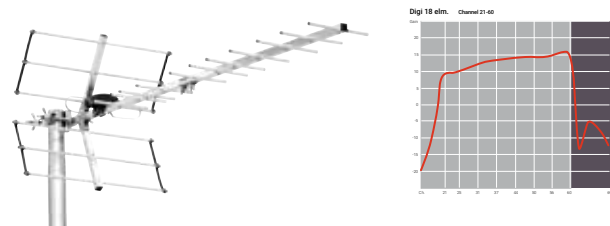
DIGI 14, LTE 800, ch 21-60
(Color box)

Art. No. 105420

EAN Number
5702661054204



DIGI 18 - LTE 800 MHz



DIGI 18, LTE 800, ch 21-60
(Color box)

Art. No. 105430

EAN Number
5702661054303



DIGI 14, LTE 800, ch 21-60
(Poly bag)

Art. No. 105421

EAN Number
5702661054211



DIGI 18, LTE 800, ch 21-60
(Poly bag)

Art. No. 105431

EAN Number
5702661054310



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
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TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

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(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX[®] Digi 14 & 18 - Band IV/V aerials

designed for superior TV reception

DIGI 14 - LTE 700 MHz

**DIGI 14, LTE 700, ch 21-48
(Color box)**

Art. No. 105470

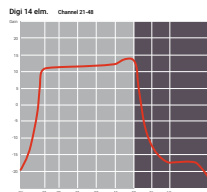
EAN Number
5702661054709



**DIGI 14, LTE 700, ch 21-48
(Poly bag)**

Art. No. 105471

EAN Number
5702661054716



DIGI 18 - LTE 700 MHz

**DIGI 18, LTE 700, ch 21-48
(Color box)**

Art. No. 105480

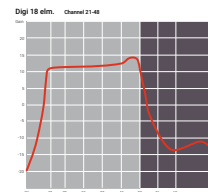
EAN Number
5702661054808



**DIGI 18, LTE 700, ch 21-48
(Poly bag)**

Art. No. 105481

EAN Number
5702661054815



Type:	DIGI 14, LTE 800, Ch 21-60 (Color box)	DIGI 14, LTE 700, Ch 21-48 (Color box)	DIGI 18, LTE 800, Ch 21-60 (Color box)	DIGI 18, LTE 700, Ch 21-48 (Color box)
Art. no.	105420/105421	105470/105471	105430/105431	105480/105481
FREQUENCY				
Band (frequency)	BIV/V	BIV/V	BIV/V	BIV/V
Channels	21...60	21...48	21...60	21...48
Frequency range UHF	470...790MHz	470...694MHz	470...790MHz	470...694MHz
LTE protected	800	700	800	700
GAIN				
Gain @ 474 MHz (Ch. 21)	7,5dBi	10,9dBi	8,0dBi	11,3dBi
Gain @ 538 MHz (Ch. 29)	9,5dBi		10dBi	
Gain @ 606 MHz (Ch. 37)	12,0dBi	11,1dBi	13,0dBi	12,5dBi
Gain @ 730 MHz (Ch. 53)	13,0dBi		14,5dBi	
Gain @ 786 MHz (Ch. 60)	13,5dBi		12,5dBi	
Gain		13,5 maxdBi		14 maxdBi
LOSS				
Rejection @ 758 MHz (Ch. 56)		3,8dB		8,0dB
Rejection @ 788 MHz (Ch. 60)		8,3dB		8,9dB
Rejection @ 811 MHz (LTE D1)	5,0dB		4,0dB	
Rejection @ 821 MHz (LTE D6)	11,0dB		8,0dB	
Rejection @ 832 MHz (LTE U1)	11,0dB		10,0dB	
Rejection @ 862 MHz (LTE U6)	8,0dB		10,0dB	
ELECTRICAL				
Impedance	75Ω	75Ω	75Ω	75Ω
Front to back ratio - horizontal	21dB	23dB	25dB	25dB
CONNECTORS				
Connector Type	F-female	F-female	F-female	F-female
MECHANICAL				
Product Length	1015mm	1085mm	1446mm	1414mm
Product Width	420mm	480mm	420mm	480mm
Main Material	Aluminium	Aluminium	Aluminium	Aluminium
Packing QTY	10	1	10	1
Beamwidth horizontal	± 21°	±30°	± 18°	±25°
Elements	14	14	18	17
Windload (N)	54N	54N	59N	59N
Net Weight	0,810kg	0,800kg	1,180kg	1,250kg
Bracketry	Mast	Mast	Mast	Cradle/support boom

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® UNIX 32 & 52 - Band IV/V aerials

the power gain aerial



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

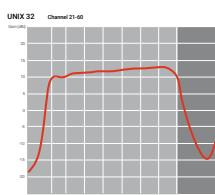
TECHNICAL
APPENDIX



Common features

- 32, 52 and 100 elem. UHF antenna with 18mm boom
- Semi-assembled – saves time during installation
- Unparalleled gain and rejection performance
- Designed to receive DTT (Digital Terrestrial TV) signals in 470-694 and 470-790 MHz range
- Rejects 4G/LTE signals in 694-790 and 790-862 MHz range using TRIAX's "Antenna Low Pass System"
- Improved weather proof dipole house with F-connector for optimal TV-signal performance
- Resistant to extreme weather conditions
- Adjustable rear mast brackets for masts up to 60 mm

UNIX 32 - LTE 800 MHz



UNIX 32, LTE 800, ch 21-60
(Color box)

Art. No. 105500

EAN Number
5702661055003



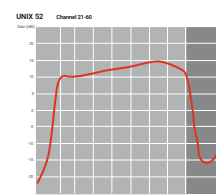
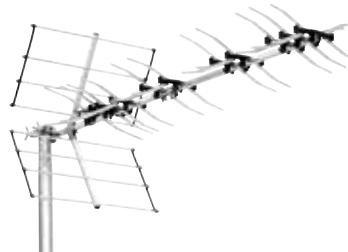
UNIX 32 LTE 800, ch 21-60
(Poly bag)

Art. No. 105501

EAN Number
5702661055010



UNIX 52 - LTE 800 MHz



UNIX 52, LTE 800, ch 21-60
(Color box)

Art. No. 105510

EAN Number
5702661055102



UNIX 52, LTE 800, ch 21-60
(Poly bag)

Art. No. 105511

EAN Number
5702661055119



TRIAX® UNIX 32 & 52 - Band IV/V aerials

the power gain aerial

UNIX 32 - LTE 700 MHz

UNIX 32, LTE 700, ch 21-48 (Color box)

Art. No. 105550

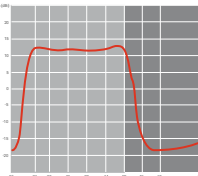
EAN Number
5702661055508



UNIX 32, LTE 700, ch 21-48 (Poly bag)

Art. No. 105551

EAN Number
5702661055515



UNIX 52 - LTE 700 MHz

UNIX 52, LTE 700, ch 21-48 (Color box)

Art. No. 105560

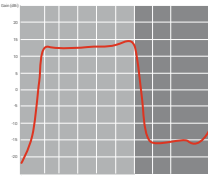
EAN Number
5702661055607



UNIX 52, LTE 700, ch 21-48 (Poly bag)

Art. No. 105561

EAN Number
5702661055614



Type:	UNIX 32, LTE 800 Ch 21-60	UNIX 32, LTE 700 Ch 21-48	UNIX 52, LTE 800 Ch 21-60	UNIX 52, LTE 700 Ch 21-48
Art. no.	105500/105501	105550/105551	105510/105511	105560/105561
FREQUENCY				
Band (frequency)	BIV/V	BIV/V	BIV/V	BIV/V
Channels	21...60	21...48	21...60	21...48
Frequency range UHF	470...790MHz	470...694MHz	470...790MHz	470...694MHz
LTE protected	800	700	800	700
GAIN				
Gain @ 474 MHz (Ch. 21)	8,5dBi	12,4dBi	11dBi	12,3dBi
Gain @ 538 MHz (Ch. 29)	11,0dBi		11,0dBi	
Gain @ 606 MHz (Ch. 37)	12,5dBi	11,8dBi	13,0dBi	14,0dBi
Gain @ 730 MHz (Ch. 53)	12,5dBi		14,5dBi	
Gain @ 786 MHz (Ch. 60)	10,0dBi		11,5dBi	
Gain		12,5 maxdBi		14,5 maxdBi
LOSS				
Rejection @ 758 MHz (Ch. 56)		8,6dB		7,1dB
Rejection @ 788 MHz (Ch. 60)		9,2dB		8,1dB
Rejection @ 811 MHz (LTE D1)	0,0dB		8,0dB	
Rejection @ 821 MHz (LTE D6)	3,0dB		8,0dB	
Rejection @ 832 MHz (LTE U1)	6,0dB		10,0dB	
Rejection @ 862 MHz (LTE U6)	20,0dB		15,0dB	
ELECTRICAL				
Impedance	75Ω	75Ω	75Ω	75Ω
Front to back ratio - horizontal	24dB	22dB	25dB	20dB
CONNECTORS				
Connector Type	F-female	F-female	F-female	F-female
MECHANICAL				
Product Length	791mm	777mm	1512mm	1394mm
Product Width	500mm	580mm	500mm	580mm
Main Material	Aluminium	Aluminium	Aluminium	Aluminium
Packing QTY	5	1	5	1
Beamwidth horizontal	± 20°	±35°	± 15°	±25°
Elements	32	32	52	52
Windload (N)	58N	58N	96N	96N
Net Weight	1,030kg	1,090kg	1,325kg	1,420kg
Bracketry	Mast - backmounting	Mast - backmounting	Mast - backmounting	Mast - backmounting

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

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TECHNICAL
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TRIAX® UNIX 100, DIGI Grid & DIGI 343

designed for superior TV reception



TERRESTRIAL
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TECHNICAL
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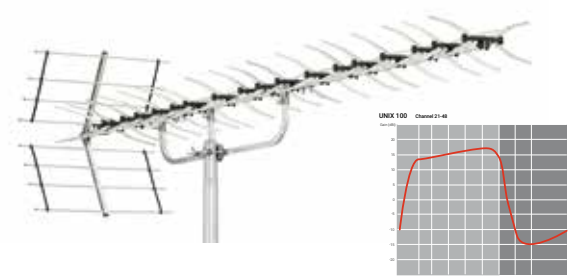
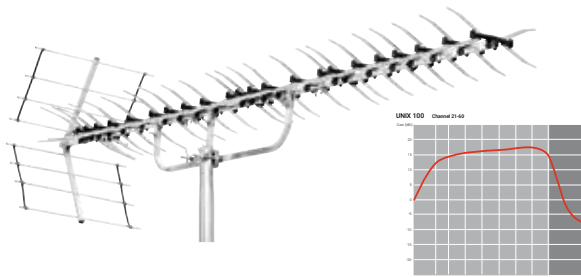


UNIX 100 - LTE 800 MHz

- UNIX 100 - LTE 800 designed to receive DTT signals in the 470-790 MHz range (ch. 21-60).
- UNIX 100 - LTE 700 designed to receive DTT signals in the 470-694 MHz range (ch. 21-48).

UNIX 100 - LTE 700 MHz

- Sealed dipole house with rear pointing F-connector for optimal TV-signal performance.
- Resistant to extreme weather conditions (made from aluminium, magnesium and manganese alloy).
- Adjustable brackets for masts up to 60 mm.



UNIX 100, LTE 800, ch 21-60 (Color box)

Art. No. 105520

EAN Number
5702661055201



UNIX 100, LTE 700, ch 21-48 (Color box)

Art. No. 105570

EAN Number
5702661055706



UNIX 100, LTE 800, ch 21-60 (Poly bag)

Art. No. 105521

EAN Number
5702661055218



UNIX 100, LTE 700, ch 21-48 (Poly bag)

Art. No. 105571

EAN Number
5702661055713



TRIAX® UNIX 100, DIGI Grid & DIGI 343

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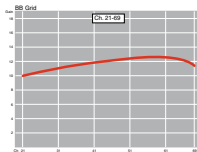
DIGI GRID - LTE 800 MHz



Digi Grid - ch. 21-69, LTE 800 Aerial

Art. No. 108015

EAN Number
5702661080159



- UHF flat panel TV aerial.
- High gain, large beam width, excellent front/back ratio, ensuring perfect TV reception.
- Compact and easy to install.
- Galvanised reflector grid, ensuring a long life.
- Even gain curve, suitable for stacking.

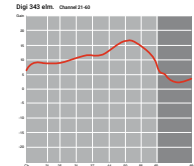
DIGI 343 - LTE 800 MHz



Digi 343 - LTE 800 Aerial ch. 21-60

Art. No. 108961

EAN Number
5702661089619



The Digi 343 21-60 is optimised for maximum gain in the frequency area 470-790 MHz.

- Easy installation
- High performance antenna
- Stable and strong construction
- Specially designed for HDTV digital reception
- F-connector

Type:	UNIX 100, LTE 800 Ch 21-60	UNIX 100, LTE 700 Ch 21-48	Digi Gridflat panel Ch 21-69	Digi 343 LTE 800 Ch 21-60
Art. no.	105520/105221	105570/105571	108015	108961
FREQUENCY				
Band (frequency)	BIV/V	BIV/V	BIV/V	BIV/BV
Channels	21...60	21...48	21...69	21...60
Frequency range UHF	470...790MHz	470...694MHz	470...862MHz	470...790MHz
LTE protected	800	700		800
GAIN				
Gain @ 474 MHz (Ch. 21)	13dBi			
Gain @ 538 MHz (Ch. 29)	16dBi			
Gain @ 606 MHz (Ch. 37)	16.5dBi			
Gain @ 730 MHz (Ch. 53)	17dBi			
Gain @ 786 MHz (Ch. 60)	14.5dBi			
Gain		17 maxdBi	12.5dBi	15.5dBi
LOSS				
Rejection @ 758 MHz (Ch. 56)		18.3dB		
Rejection @ 788 MHz (Ch. 60)		14.6dB		
Rejection @ 821 MHz (LTE D6)	2.0dB			
Rejection @ 832 MHz (LTE U1)	5.0dB			
Rejection @ 862 MHz (LTE U6)	10.0dB			
ELECTRICAL				
Impedance	75Ω	75Ω	75Ω	75Ω
Front to back ratio - horizontal	27dB	20dB	22dB	20dB
CONNECTORS				
Connector Type	F-female	F-female	F-female	F-female
MECHANICAL				
Product Length	2257mm	2343mm	805mm	1056mm
Product Width	500mm	580mm	545mm	540mm
Main Material	Aluminium	Aluminium	Aluminium	Aluminium
Packing QTY	3	1	2	1
Beamwidth horizontal	± 11°	±15°	± 25°	± 15°
Elements	100	80	4	43
Windload (N)	162N	162N	78N	150N
Net Weight	2,650kg	2,300kg	1,566kg	1,700kg
Beamwidth vertical			± 20°	
Bracketry	Cradle/support boom	Cradle/support boom	Mast	Mast

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TRIAX[®] VHF/UHF Combi aerials

designed for superior TV reception



TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

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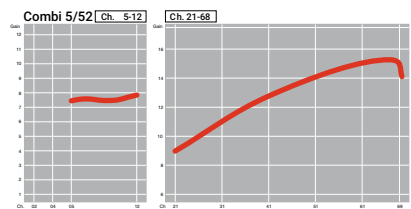
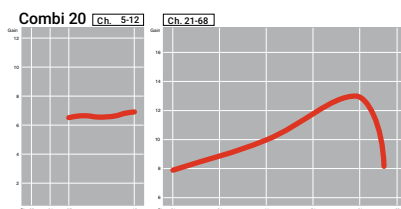
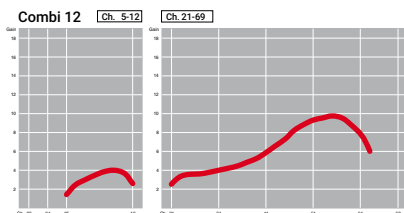
INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX



Common features

- Combi 12, 20 and 57 elements VHF/UHF aerial with 18mm boom
- Semi-assembled – saves time during installation
- Designed to receive DTT (Digital Terrestrial TV) signals in 470-790 MHz ranges
- Unparalleled gain and rejection performance
- Improved weather proof dipole house with F-connector for optimal TV-signal performance
- Resistant to extreme weather conditions
- Adjustable rear mast brackets for masts up to 60 mm



Combi 12 Aerial w. mast bracket

Art. No. 108936
EAN Number 5702661089367



Combi 20 Aerial

Art. No. 108694
EAN Number 5702661086946



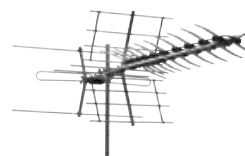
Combi 12 Aerial w. window bracket

Art. No. 108937
EAN Number 5702661089374



Combi 57 Aerial

Art. No. 108696
EAN Number 5702661086960



TRIAX® VHF/UHF Combi aerials

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UFO 150 - LTE 800 MHz



**UFO 150 Digital 5-24V,
LTE 800 Aerial**

Art. No. 109150

**EAN Number
5702661091506**



UFO 170 - LTE 700 MHz



**UFO 170 Digital 5-24V,
LTE 700 Aerial**

Art. No. 109170

**EAN Number
5702661091704**



Common features

- Triax UFO, 1 element Omni digital aerial (VHF/UHF)
- Receives FM/VHF/DAB/UHF signals
- The antenna is surface-treated to withstand impact of salt water and poor weather conditions
- A small and discreet antenna
- The ideal flexible solution for home, indoor, caravan, boat, mobile home, bus and truck
- TETRA safe

Type:	Combi 12 Ch. 5-12/21-60	Combi 20 Ch. 5-12/21-60	Combi 57 Ch. 5-12/21-60	UFO 150 Digital LTE 800 Aerial	UFO 170 Digital LTE 700 Aerial
Art. no.	108936/108937	108694	108696	109150	109170
CHARACTERISTICS					
Max. output level				VHF:108 UHF: 104dBµV	VHF:108 UHF: 104dBµV
FREQUENCY					
Band	BIII/BIV-BV	BIII/BIV-V	BIII/BIV-V	FM/DAB/DAB+/ VHF/UHF	FM/DAB/DAB+/ VHF/UHF
Channels	5-12/21-60	5-12/21-69	5-12/21-69	FM / 5-12 / 21-60	FM / 5-12 / 21-48
Frequency range DAB	-	-	-	200...240MHz	200...240MHz
Frequency range FM	-	-	-	87,5...108MHz	87,5...108MHz
Frequency range UHF	470...790MHz	470-862MHz	470-790MHz	470...790MHz	470...694MHz
GAIN					
Gain - VHF	4.0 dB	6.0 dB	8.0 dB	27.0 dB	28.0 dB
Gain - UHF	4.0...9.0dB	11.5dB	14.5dB	27.0dB	27.0dB
Noise figure	-	-	-	3.0dB	3.0dB
ELECTRICAL					
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω
Front to back ratio - horizontal	12.0dB	12.0dB	17.0dB	-	-
OPERATIONAL					
DC Operating voltage				12/85mA VDC	12/85mA VDC
Power Consumption (typ.)				< 1.2W	< 1.2W
CONNECTORS					
Connector Type	Saddle & Clamp (S&C)	Saddle & Clamp (S&C)	Saddle & Clamp (S&C)	F-female	F-female
MECHANICAL					
Design					
Material	Aluminum	Aluminum	Aluminum	Alu/Plast	Alu/Plast
Packing QTY	1	1	1	1	1
Beamwidth horizontal	± 32°	± 35°	± 31°	360°	360°
Construction type	MTH	MTH	MTH		
Elements	4/8	5/15	5/52	1	1
Windload	34N	56N	146N	5.5N	5.5N
Weight (kg)	0.75 kg	1.0 kg	2.90 kg	0.7 kg	0.7 kg
Length (mm)	866mm	815mm	1725mm	325mm	325mm
Width (mm)	855mm	760mm	880mm	255mm	255mm
Remarks:					
External PSU				339502 IFP 502	339502 IFP 502
External PSU/Inserter				339522 IFP 522	339522 IFP 522
Center bracket				Art. No. 133226	

TERRESTRIAL
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TRIAX[®] FM & DAB aerials

designed for superior TV reception



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TRIAX FM and DAB Aerials

- Eliminate reflections and combines low weight with high gain and an excellent front to back ratio
- Supplied with an aluminium boom
- F-connector
- Mounting brackets for mast diameters up to 80mm

TRIAX DAB (BIII) 1 el. Aerials

- DAB aerials cover the frequency range 200-240 MHz.
- Supplied with a light alloy metal boom made of 18x18 mm square tubes.
- Aerials are supplied with mounting brackets for mast diameter up to Ø60 mm.



FM Zigma, 1 elem. BII (Color box)

Art. No. 105100

EAN Number
5702661051005



FM-3, 3 elem, BII (Color box)

Art. No. 105110

EAN Number
5702661051104



FM Zigma, 1 elem. BII (Polybag)

Art. No. 105101

EAN Number
5702661051012



FM-3, 3 elem, BII (Polybag)

Art. No. 105111

EAN Number
5702661051111



FM Omni, 1 elem, BII (Polybag)

Art. No. 100188

EAN Number
5702661001888



TRIAX® FM & DAB aerials

designed for superior TV reception

TRIAX DAB (BIII) 1 el. Aerials



**DAB-1, 1 elem,
BIII (Color box)**

Art. No. 105130

EAN Number
5702661051302



**DAB-1, 1 elem,
BIII (Polybag)**

Art. No. 105131

EAN Number
5702661051319



Type:	FM Zigma, 1 elem. BII	BII - FM Omni 1 elem. BII	FM-3, 3 elem. BII	DAB-1, 1 elem. BIII
Art. no.	105100/105101	100188	105110/105111	105130/105131
FREQUENCY				
Band	BII	BII	BII	BIII
Channels				9...13
Frequency range DAB				200...240MHz
Frequency range FM	87,5...108MHz	87,5...108MHz	87,5...108MHz	
GAIN				
Gain	0dBi	-2.0dBi	6dBi	2.2 dBi
ELECTRICAL				
Impedance	75Ω	75Ω	75Ω	75Ω
Front to back ratio	0dB	0dB	16dB	
CONNECTORS				
Connector Type	F-female	F-female	F-female	F-female
MECHANICAL				
Material	Aluminium	Aluminium	Aluminium	Aluminium
Packing QTY	1	1	1	1
Beamwidth horizontal	±45°	± 180°	±35°	± 180°
Construction type	MT	MTHV	MT	MTH
Elements	1	1	3	1
Windload	31N	16N	56N	20N
Length (mm)	550 mm	∅ 505 mm	119 mm	400mm
Width (mm)	1140 mm		158 mm	625mm

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TRIAX[®] VHF (BIII) aerials

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Common features

- Band III aerials are wideband, channel or channel group types for horizontal or vertical mounting.
- TRIAX band III aerials cover the frequency range 174-230 MHz (ch. 5-12).
- TRIAX aerials are supplied with a light alloy metal boom made of 18 x 18 mm square tubes.
- The aerials are provided with brackets for masts up to Ø60 mm or with window brackets.



**VHF BIII - ch. 5...12,
6 elements (Polybag)**

Art. No. 103862
EAN Number 5702661038624



**BIII - ch. 5...12, 10 elements
(Polybag)**

Art. No. 104579
EAN Number 5702661045790



**VHF BIII - ch. 5...12,
9 elements (Colorbox)**

Art. No. 105200
EAN Number 5702661052002


**BIII - ch. 5...12, 13 elements
(Polybag)**

Art. No. 105211
EAN Number 5702661052118

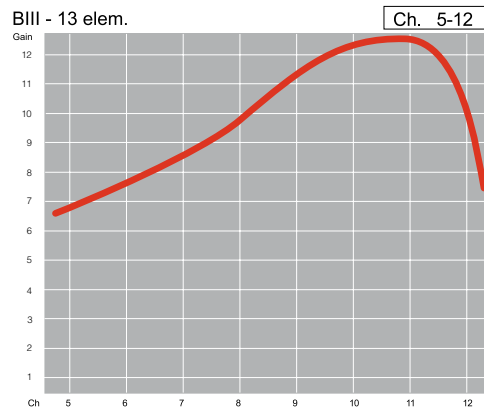
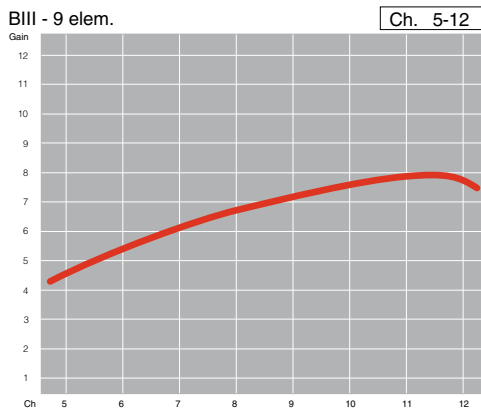
**VHF BIII - ch. 5...12,
9 elements (Polybag)**

Art. No. 105201
EAN Number 5702661052019



TRIAx[®] VHF (BIII) aerials

designed for superior TV reception



Type:	VHF BIII ch. 5...12 6 elements	VHF BIII ch. 5...12 9 elements	VHF BIII ch. 5...12 10 elements	VHF BIII ch. 5...12 13 elements
Art. no.	103862	105200/105201	104579	105211
FREQUENCY				
Band (frequency)	BIII	BIII	BIII	BIII
Channels	5...12	5...12	5...12	5...12
Frequency range VHF	174...300MHz	174...230MHz	174...230MHz	174...230MHz
GAIN				
Gain	7.5dBi	8 maxdBi	9.5dBi	12.8 max dBi
Gain @ 174 MHz (Ch. 5)		4.2dBi		6.6 dBi
Gain @ 230 MHz (Ch. 12)		7.5dBi		10.6 dBi
ELECTRICAL				
Impedance	75Ω	75Ω	75Ω	75Ω
Front to back ratio - horisontal	16dB	20dB	22dB	20dB
CONNECTORS				
Connector Type	F-female	F-female	Saddle & Clamp (S&C)	F-female
MECHANICAL				
Product Width	800mm	870mm	880mm	920mm
Product Length	1410mm	880mm	1735mm	2080mm
Main Material	Aluminum	Aluminum	Aluminum	Aluminum
Packing QTY	1	1	1	1
Beamwidth horisontal	± 26°	± 40°	± 23°	± 40°
Construction type	MTH		MTHD	
Elements	6	9	10	13
Windload (N)	48N	58N	78N	58N

- TERRESTRIAL RECEPTION
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TRIAX[®] outdoor masthead amplifiers

for excellent terrestrial reception



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Common features

In most electronics it pays well to invest in quality. By choosing TRIAX products, you can be sure of many years of operation without difficulties. Our range of masthead amplifiers are designed to cut off channel 60-69/49-69 where 4G/LTE mobile broadband services are transmitted:

- Input/output: BIII (DAB/UHF up to 694-790 MHz) (E48 - E60)
- High quality weather proof mast housing
- Low noise figures
- Simple and easy mast mounting



MFA 611 - 1 Input - UHF/BIII - Multiband mast amplifier
LTE 800 Protected

Art. No. 340611

EAN Number 5702663406117

No. of inputs 1

No. of outputs 2



MFA 611 - 1 Input - UHF/BIII - Multiband mast amplifier
LTE 700 Protected

Art. No. 340911

EAN Number 5702663409118

No. of inputs 1

No. of outputs 2



MFA 621 - 2 Input - UHF/BIII /FM - Multiband mast amplifier
LTE 800 Protected

Art. No. 340621

EAN Number 5702663406216

No. of inputs 2

No. of outputs 1



MFA 621 - 2 Input - UHF/BIII /FM - Multiband mast amplifier
LTE 700 Protected

Art. No. 340921

EAN Number 5702663409217

No. of inputs 2

No. of outputs 1



MFA 656 - 3 Input - UHF/BIII /DAB/FM - Multiband mast amplifier
LTE 800 Protected

Art. No. 340656

EAN Number 5702663406568

No. of inputs 3

No. of outputs 1



MFA 656 - 3 Input - UHF/BIII /DAB/FM - Multiband mast amplifier
LTE 700 Protected

Art. No. 340956

EAN Number 5702663409569

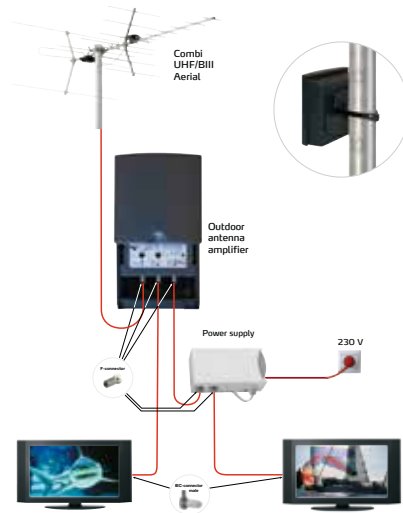
No. of inputs 3

No. of outputs 1



TRIAX® outdoor masthead amplifiers

for excellent terrestrial reception



Type:	MFA 611 UHF/BIII LTE 800	MFA 611 UHF/BIII LTE 700	MFA 621 UHF/BIII/FM LTE 800	MFA 621 UHF/BIII/FM LTE 700	MFA 656 UHF/BIII/DAB/ FM - LTE 800	MFA 656 UHF/BIII/DAB/ FM - LTE 700
Art. no.	340611	340911	340621	340921	340656	340956
CHARACTERISTICS						
Max. output level	103 dB μ V		103 dB μ V		103 dB μ V	
FREQUENCY						
Input 1 - band	BIII(DAB)+UHF	BIII(DAB)+UHF	BIII(DAB)+UHF	BIII(DAB)+UHF	UHF	UHF
Input 1 - channels	5...12/21...60	5...12/21...48	5...12/21...60	5...12/21...48	21...60	21...48
Input 1 - frequency	170...230 / 470...790MHz	170...230 / 470...694MHz	170...230 / 470...790MHz	170...230 / 470...694MHz	470...790MHz	470...694MHz
Input 2 - band	BII			BIII (DAB)		
Input 2 - channels	FM			5...12 + DAB		
Input 2 - frequency	87...108MHz			174...230MHz		
Input 3 - band				BII		
Input 3 - channels				FM		
Input 3 - frequency				87...108MHz		
GAIN						
Input 1 - gain	10...25 / 15...30dB		20...35dB		20...35dB	
Input 1 - noise figure	3.5dB		2.5dB		<2.5dB	
Input 2 - gain				5...15dB		
Input 2 - noise figure				2.5dB		
Input 3 - gain				5...15dB		
Input 3 - noise figure				< 2.5dB		
RETURN LOSS						
Return Loss	10/8dB		10/8dB		10/8dB	
ELECTRICAL*						
Impedance	75 Ω	75 Ω	75 Ω	75 Ω	75 Ω	75 Ω
OPERATIONAL						
DC Operating voltage	12...24 VDC	12...24 VDC	12...24 VDC	12...24 VDC	12...24 VDC	12...24 VDC
LED indicator	Yes - green	Yes - green	Yes - green	Yes - green	Yes - green	Yes - green
CONNECTORS						
Connector Type	F-female	F-female	F-female	F-female	F-female	F-female
Number of inputs	1	1	2	2	3	3
Number of outputs	2	2	1	1	1	1
MECHANICAL						
Depth (mm)	60mm	60mm	60mm	60mm	60mm	60mm
Height (mm)	115mm	115mm	115mm	115mm	115mm	115mm

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- Input/output: BIII (DAB/UHF up to 694-790 MHz) (E48 - E60)
- High quality weather proof mast housing
- Low noise figures
- Simple and easy mast mounting



MFA 622 - 2 Input - UHF/UHF Wideband mast amplifier

Art. No. 340622

EAN Number 5702663406223

No. of inputs 2

No. of outputs 2



MFA 641 - 2 Input - UHF/FM Multiband mast amplifier

Art. No. 340641

EAN Number 5702663406414

No. of inputs 2

No. of outputs 1



MFA 642 - 2 Input - UHF/FM Multiband mast amplifier

Art. No. 340642

EAN Number 5702663406421

No. of inputs 2

No. of outputs 1



MFA 645 - 2 Input - UHF/BIII/DAB - Multiband mast amplifier

Art. No. 340645

EAN Number 5702663406452

No. of inputs 2

No. of outputs 1



MFA 652 - 2 Input - UHF/VHF Multiband mast amplifier

Art. No. 340652

EAN Number 5702663406520

No. of inputs 2

No. of outputs 1



MFA 655 - 3 Input UHF/BIII/DAB/FM Multiband mast amplifier

Art. No. 340655

EAN Number 5702663406551

No. of inputs 3

No. of outputs 1



TRIAx® outdoor masthead amplifiers

for excellent terrestrial reception



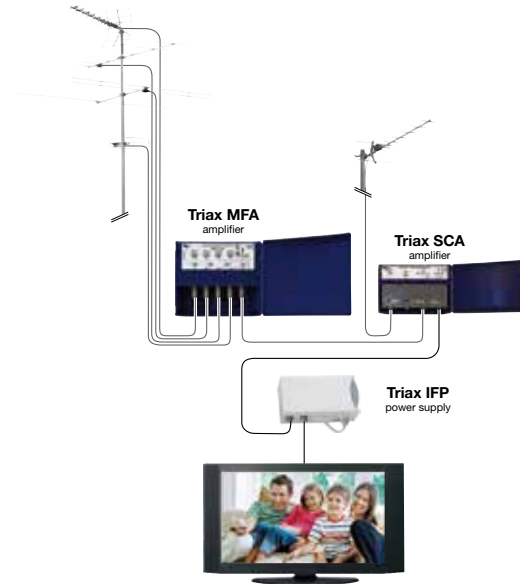
MFA 665 - 3 Input
UHF/UHF/VHF
Multiband mast amplifier

Art. No. 340665

EAN Number 5702663406650

Number of inputs 3

Number of outputs 1



Type:	MFA 622 UHF/UHF	MFA 641 UHF/FM	MFA 642 UHF/FM	MFA 645 UHF/BIII/DAB	MFA 652 UHF/VHF	MFA 655 UHF/BIII/ DAB/FM	MFA 665 UHF/UHF/ VHF
Art. no.	340622	340641	340642	340645	340652	340655	340665
CHARACTERISTICS							
Max. output level	105 dBµV	105 dBµV	105 dBµV	105 dBµV	102 dBµV	105 dBµV	109 dBµV
FREQUENCY							
Input 1 - band	UHF	UHF	UHF	UHF	UHF	UHF	UHF
Input 1 - channels	21...69	21...69	21...69	21...69	21...69	21...69	21...69
Input 1 - frequency	470...860 MHz						
Input 2 - band	UHF	BII	BII	BIII/DAB	VHF	BII	UHF
Input 2 - channels	21...69	FM	FM	5...12	2...12	FM	21...69
Input 2 - frequency	470...860MHz	87.5...108MHz	87.5...108MHz	174...230MHz	47...230MHz	87.5...108MHz	470...860MHz
Input 3 - band						BIII/DAB	VHF
Input 3 - channels						5...12	2...12
Input 3 - frequency						174...230MHz	47...230MHz
GAIN							
Input 1 - gain	20-30dB	24...34dB	24...34dB	24...34dB	13...23dB	13...23dB	19...29dB
Input 1 - noise figure	6.5dB	2.5dB	2.5dB	2.5dB	4.5dB	4.3dB	3,8dB
Input 2 - gain	20...30dB	14...24dB	- 2dB	14...24dB	13...23dB	2...12dB	12...22dB
Input 2 - noise figure	6.5dB	4.5dB	4.5dB	4.5dB	4.0dB	6.5dB	12dB
Input 3 - gain						13...23dB	13...23dB
Input 3 - noise figure						3.5dB	4.5dB
RETURN LOSS							
Return Loss		10/10dB	10/10dB	10/10dB	10/10dB	10/10dB	10/10dB
ELECTRICAL*							
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL							
DC Operating voltage	12...24VDC	12...24VDC	12...24VDC	12...24VDC	12...24VDC	12...24VDC	12...24VDC
LED indicator		Yes - green	Yes - green	Yes - green	Yes - green	Yes - green	Yes - green
CONNECTORS							
Connector Type	F-female	F-female	F-female	F-female	F-female	F-female	F-female
Number of inputs	2	2	2	2	2	3	3
Number of outputs	2	1	1	1	1	1	1
MECHANICAL							
Depth (mm)	60mm	60mm	60mm	60mm	60mm	60mm	60mm
Height (mm)	115mm	115mm	115mm	115mm	115mm	115mm	115mm

- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX

TRIAX® outdoor masthead amplifiers

for excellent terrestrial reception



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
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INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features

High performance range of mast amplifiers with F-connector

- F-connectors on all in- and outputs
- Simple and easy installation
- Unique mounting system
- Attractive design in a 4-terminal waterproof masting housing

- Wide range with 1, 2 or 3 inputs and 1 output
- High gain and output voltage
- Fixed or adjustable gain
- Low noise figures
- Power stabiliser enables use of 12V to 24V
- High output level
- RF shielded and CE compliant (EN 50083)



MFA 302 - 1 Input - UHF/BIII Group mast amplifier

Art. No. 340302

EAN Number 5702663403024

No. of inputs 1

No. of outputs 1



MFA 633 - 1 Input - UHF Group mast amplifier

Art. No. 340633

EAN Number 5702663406339

No. of inputs 1

No. of outputs 1



MFA 612 - 1 Input - UHF Group mast amplifier

Art. No. 340612

EAN Number 5702663406124

No. of inputs 1

No. of outputs 1



MFA 661 - 1 Input - UHF Wideband mast amplifier LTE 800 Protected

Art. No. 340661

EAN Number 5702663406612

No. of inputs 1

No. of outputs 1



MFA 624 - 1 Input - UHF Wideband mast amplifier

Art. No. 340624

EAN Number 5702663406247

No. of inputs 1

No. of outputs 1



TRIAX[®] outdoor masthead amplifiers

for excellent terrestrial reception

AFA Micro UHF amplifier

The active wideband micro amplifier can change your UHF-aerial with F-connector, to an active antenna. It works with 5 VDC from your digital Set Top Box, or with 5-12 VDC from any power supply.



AFA Micro - 1 Input - UHF
Wideband mast amplifier

Art. No. 340012

EAN Number 5702663400122

No. of inputs 1

No. of outputs 1

Type:	AFA Micro UHF	MFA 302 UHF/BIII	MFA 612 UHF	MFA 624 UHF	MFA 633 UHF	MFA 661 UHF/LTE 800
Art. no.	340012	340302	340612	340624	340633	340661
CHARACTERISTICS						
Max. output level	95 dBμV	103 dBμV	105 dBμV	105 dBμV	105 dBμV	112 dBμV
FREQUENCY						
Input 1 - band	UHF	UHF+BIII	UHF	UHF	UHF	UHF
Input 1 - channels	21...69	21...69/5...12	21...69	21...69	21...69	21...60
Input 1 - frequency	470...860MHz	175...860MHz	470...860MHz	470...860MHz	470...860MHz	470...790MHz
Input 2 - band					AM/BII	
Input 2 - channels					AM/FM	
Input 2 - frequency					2.5-108MHz	
GAIN						
Input 1 - gain	12dB	20dB	12dB	25.0dB	24...34dB	17dB
Input 1 - noise figure	2.3dB	3.0dB	1.9dB	2.5dB	2.5dB	<2.2dB
Input 2 - gain						
Input 2 - noise figure		3.0dB				
RETURN LOSS						
Return Loss	>10dB	dB	10dB	10dB	10dB	>10dB
ELECTRICAL*						
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL						
DC Operating voltage	5...12VDC	12...24VDC	12...24VDC	12...24VDC	12...24VDC	5...24VDC
LED indicator						Yes - green
CONNECTORS						
Connector Type	F-male/F-female	F-female	F-female	F-female	F-female	F-female
Number of inputs	1	1	1	1	1	1
Number of outputs	1	1	1	1	1	1
MECHANICAL						
Depth (mm)		70mm	60mm	60mm	60mm	50mm
Height (mm)	45mm	150mm	115mm	115mm	115mm	108mm

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

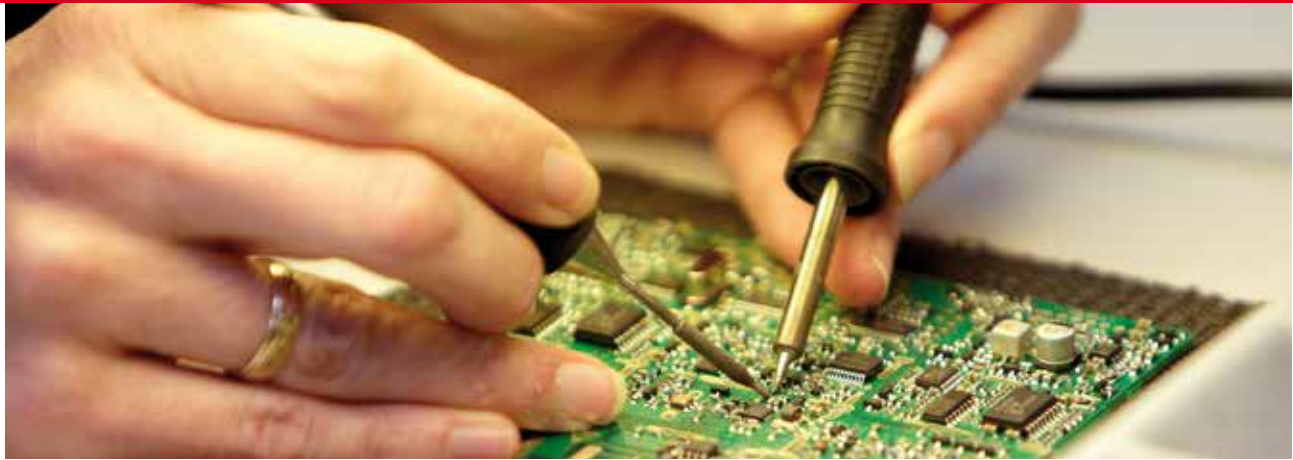
SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX

TRIAX® outdoor-indoor stop filters

stop channel filter – LTE 800 protected



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features

In most electronics it pays well to invest in quality. By choosing TRIAX products, you can be sure of many years of operation without difficulties. Our range of mast stop channel filters are designed to cut off channel 49-69 where 4G/LTE mobile broadband services are transmitted:

- Input/output: BI/BII/BIII (DAB)/UHF
- High rejection
- Low through loss
- Mast or wall mounting
- High quality weather proof mast housing
- Simple and easy mast mounting



TBSO 257 outdoor Stop Ch. 57 - LTE 800 Protected

Art. No. 314075

EAN Number 5702663140752

No. of inputs 1

No. of outputs 1



TBSI 257 indoor Stop Ch. 57 - LTE 800 Protected

Art. No. 314074

EAN Number 5702663140745

No. of inputs 1

No. of outputs 1



TBSO 259 outdoor Stop Ch. 59 - LTE 800 Protected

Art. No. 314071

EAN Number 5702663140714

No. of inputs 1

No. of outputs 1



TBSI 259 indoor Stop Ch. 59 - LTE 800 Protected

Art. No. 314070

EAN Number 5702663140707

No. of inputs 1

No. of outputs 1



TBSO 260 outdoor Stop Ch. 60 - LTE 800 Protected

Art. No. 314073

EAN Number 5702663140738

No. of inputs 1

No. of outputs 1



TBSI 260 indoor Stop Ch. 60 - LTE 800 Protected

Art. No. 314072

EAN Number 5702663140721

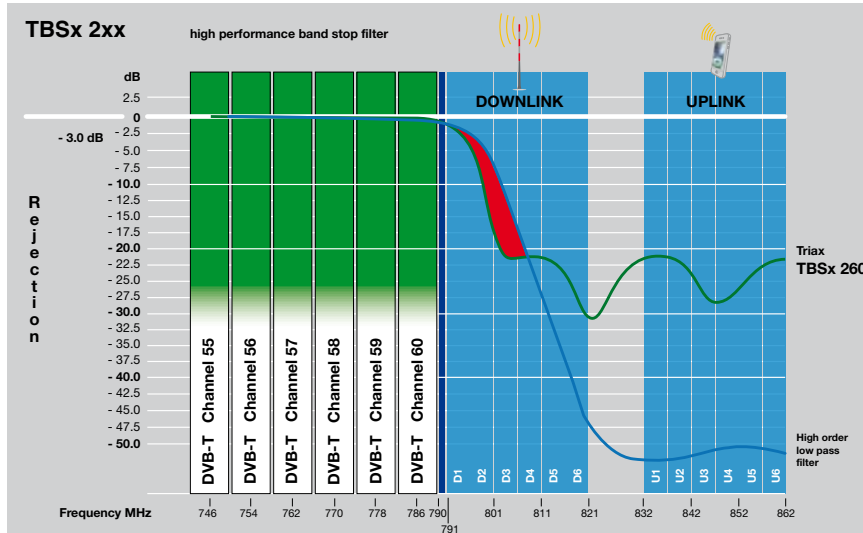
No. of inputs 1

No. of outputs 1



TRIAx[®] outdoor-indoor stop filters

stop channel filter – LTE 800 protected



Type:	TBSO 257 Ch. 57 LTE 800	TBSO 259 Ch. 59 LTE 800	TBSO 260 Ch. 60 LTE 800	TBSI 257 Ch. 57 LTE 800	TBSI 259 Ch. 59 LTE 800	TBSI 260 Ch. 60 LTE 800
Art. no.	314075	314071	314073	314074	314070	314072

CHARACTERISTICS

Type	Stop filter	Stop filter	Stop filter	Stop filter	Stop filter	Stop filter
FREQUENCY						
Input 1 - band	BI/BII/BIII (DAB)/UHF	BI/BII/BIII (DAB)/UHF	BI/BII/BIII (DAB)/UHF	BI/BII/BIII (DAB)/UHF	BI/BII/BIII (DAB)/UHF	BI/BII/BIII (DAB)/UHF
Input 1 - channels	2...57	2...59	2...60	2...57	2...59	2...60
Input 1 - frequency	47...766MHz	47...782MHz	47...790MHz	47...766MHz	47...782MHz	47...790MHz
LOSS						
Input 1 - Rejection	@791-862MHz: 28dB	@792-795MHz: 10dB / @795-862MHz: 20dB	@800-803MHz: 12dB / @803-862MHz: 20dB	@791-862MHz: 28dB	@792-795MHz: 10dB / @795-862MHz: 20dB	@800-803MHz: 12dB / @803-862MHz: 20dB
Input 1 - through loss	@47-766MHz: 2.0dB	@47-766MHz: 1.0dB / @766- 782MHz: 3.0dB	@47-774MHz: 1.0dB / @774- 790MHz: 3.0dB	@47-766MHz: 2.0dB	@47-766MHz: 1.0dB / @766- 782MHz: 3.0dB	@47-774MHz: 1.0dB / @774- 790MHz: 3.0dB

CONNECTORS

Connector Type	F-female	F-female	F-female	F-female	F-female	F-female
Number of inputs	1	1	1	1	1	1
Number of outputs	1	1	1	1	1	1

MECHANICAL

Colour	RAL 7016	RAL 7016	RAL 7016	White	White	White
Height (mm)	108mm	145mm	108mm	75mm	75mm	75mm
Width (mm)	120mm	107mm	120mm	75mm	75mm	75mm

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® outdoor mast combiners

multiband mast combiners



- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX



Common features

In mast electronics it pays well to invest in quality. By choosing TRIAX products, you can be sure of many years of operation without difficulties. Our range of mast combiners are designed to cut off channel 49-69 where 4G/LTE mobile broadband services are transmitted:

- Input/output: BI/BII/BIII (DAB)/UHF
- High Rejection
- Low through loss
- F-connector
- High quality weather proof mast housing
- Simple and easy mast mounting

MFC 101 - SAT/TV combiner

Art. No. 340101

EAN Number 5702663401013
 No. of inputs 2
 No. of outputs 1



MFC 105 - TV/TV combiner

Art. No. 340105

EAN Number 5702663401051
 No. of inputs 2
 No. of outputs 1



MFC 102 - SAT/UHF/VHF combiner

Art. No. 340102

EAN Number 5702663401020
 No. of inputs 3
 No. of outputs 1



MFC 106 - TV/FM combiner

Art. No. 340106

EAN Number 5702663401068
 No. of inputs 2
 No. of outputs 1



MFC 104 - UHF/BIII/AM/FM combiner

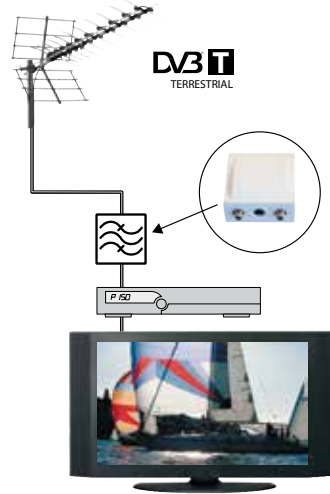
Art. No. 340104

EAN Number 5702663401044
 No. of inputs 3
 No. of outputs 1



TRIAX® outdoor mast combiners

multiband mast combiners



Type:	MFC 101 SAT/TV	MFC 102 SAT/UHF/VHF	MFC 102 SAT/UHF/VHF (blister pack)	MFC 104 - UHF/ BIII/AM/FM	MFC 105 TV/TV	MFC 106 TV/FM
Art. no.	340101	340102	-	340104	340105	340106
CHARACTERISTICS						
Type	Combiner	Combiner		Combiner	Combiner	Combiner
FREQUENCY						
Input 1 - band	SAT	SAT		UHF	VHF/UHF	VHF/UHF
Input 1 - channels	IF	IF		21-69	2-69	2-69
Input 1 - frequency	950-2150MHz	950-2150MHz		470-862MHz	47-862MHz	47...68 / 139...862MHz
Input 1 - stop channel						
Input 2 - band	VHF/UHF	UHF		VHF	VHF/UHF	BII
Input 2 - channels	2-69	21...69		5-12	2-69	FM
Input 2 - frequency	47-862MHz	470-862MHz		175-230MHz	47-862MHz	87.5-108MHz
Input 3 - band		VHF		AM/FM		
Input 3 - channels		2-12		1-4		
Input 3 - frequency		47-230MHz		0.15-108MHz		
LOSS						
Input 1 - Stop Band Attenuation	50dB	50dB		20dB	20dB	20dB
Input 1 - through loss	3.0dB	3.0dB		2.0dB	4.0dB	1.0dB
Input 2 - Stop Band Attenuation	20dB	20dB		20dB	20dB	20dB
Input 2 - through loss	2.0dB	2.0dB		1.5dB	4.0dB	1.0dB
Input 3 - Stop Band Attenuation		20dB				
Input 3 - through loss		1.5dB		1.0dB		
Input 4 - through loss						
OPERATIONAL						
DC Passthrough	Yes SAT	Yes SAT		Yes UHF	Yes VHF/UHF	Yes VHF/UHF
CONNECTORS						
Connector Type	F-female	F-female		F-female	F-female	F-female
Number of inputs	2	3		3	2	2
Number of outputs	1	1		1	1	1
MECHANICAL						
Colour	RAL 7016	RAL 7016		RAL 7016	RAL 7016	RAL 7016
Height (mm)	117mm	117mm		117mm	117mm	117mm
Width (mm)	120mm	120mm		120mm	120mm	120mm
Remarks	DC through power SAT	DC through power SAT		DC through power UHF		DC through power VHF/UHF

- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX

TRIAX[®] mast combiners

TV – TV/SAT combiners



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features

In mast electronics it pays well to invest in quality. By choosing TRIAX products, you can be sure of many years of operation without difficulties. Our range of TV and TV/SAT combiners perform whatever the environment:

- High Rejection
- Low through loss
- F-connector
- High quality weather proof mast housing
- Simple and easy mast mounting



MFC 130
TV combiner

Art. No. 340130

EAN Number 5702663401303

No. of inputs 2

No. of outputs 1



MFC 140
TV combiner

Art. No. 340140

EAN Number 5702663401402

No. of inputs 3

No. of outputs 1



CTS 2400
TV/SAT combiner (diecast)

Art. No. 511102

EAN Number 3700113422078

No. of inputs 1

No. of outputs 1



Triax 110
TV/SAT combiner (diecast)

Art. No. 340110

EAN Number 5702663401105

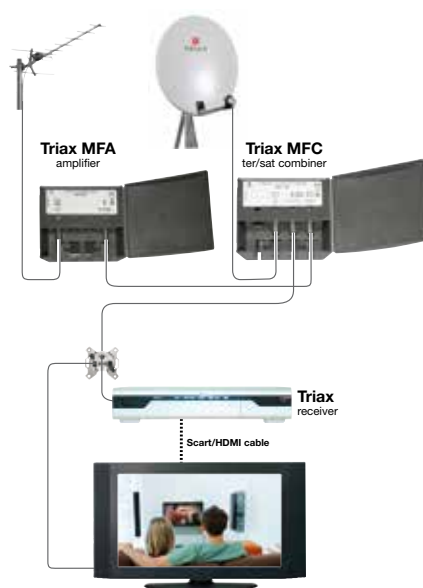
No. of inputs 2

No. of outputs 1



TRIAX® mast combiners

TV – TV/SAT combiners



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

Type:	MFC 130 TV	MFC 140 TV	CTS 2400 TV/SAT (diecast)	Triax 110 TV/SAT (diecast)
Art. no.	340130	340140	511102	340110
CHARACTERISTICS				
Type	Combiner	Combiner	Combiner	Combiner
FREQUENCY				
Input 1 - band	UHF	UHF		SAT
Input 1 - channels	21-69	21-69	2...69	IF
Input 1 - frequency	470-862MHz	470-862MHz	5...862MHz	950-2400MHz
Input 1 - stop channel				
Input 2 - band	VHF	BIII		VHF/UHF
Input 2 - channels	2-12	5-12		2-69
Input 2 - frequency	47-230MHz	174-230MHz	950...2400MHz	47-862MHz
Input 3 - band		AM/BII		
Input 3 - channels				
Input 3 - frequency		2.5-108MHz		
LOSS				
Input 1 - Rejection				
Input 1 - Stop Band Attenuation	16dB	20dB		22/25dB
Input 1 - through loss	1.0dB	1.0dB	2.0dB	2.0/3.0dB
Input 2 - Stop Band Attenuation	16dB	20dB		20dB
Input 2 - through loss	1.0dB	1.0dB	2.5dB	2.0dB
Input 3 - Stop Band Attenuation		25dB		
Input 3 - through loss		3.5/1.0dB		
OPERATIONAL				
DC Passthrough	Yes	Yes UHF		Yes SAT
CONNECTORS				
Connector Type	F-female	F-female		F-female
Number of inputs	2	3		2
Number of outputs	1	1	1	1
MECHANICAL				
Colour	RAL 7016	RAL 7016		
Height (mm)	115mm	115mm		38mm
Width (mm)	117mm	117mm		75mm
Remarks	Mechanical throughpower on both inputs 5-24	DC throughpower UHF output 5-24		Diecast housing. DC throughpower to SAT input

TRIAX® LTE filters

for in- and outdoor



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features

Our high performance band stop LTE filters protect from interference on DVB-T signals, and protect from overload from strong LTE signals (base station transmitters) on antenna amplifiers, TV tuners, set top boxes, and TVs.

The filters protect from the entire LTE mobile broadband spectrum Ch 61-69 (791-862 MHz), and are customised to

provide the highest protection in the LTE downlink frequency spectrum 791-821 MHz, where LTE transmission levels will be highest.

The 700 MHz filters have weatherproof F-connectors with O-rings, ensuring they are suitable for in- and outdoor use, whatever the weather.



700MHz LTE LP Out-/Indoor filter - Ch.46

Art. No. 314178

EAN Number 5702663141780

No. of inputs

No. of outputs



800MHz LTE LP filter - Ch.58

Art. No. 360112

EAN Number 5702663601123

No. of inputs 1

No. of outputs 1



700MHz LTE LP Out-/Indoor filter - Ch.48

Art. No. 314176

EAN Number 5702663141766

No. of inputs

No. of outputs



800MHz LTE LP filter - Ch.59

Art. No. 360113

EAN Number 5702663601130

No. of inputs 1

No. of outputs 1



4G/LTE In- Line Filter Kit Ch. 59 - IEC conn. LTE 800 Protected

Art. No. 314080

EAN Number 5702663140806

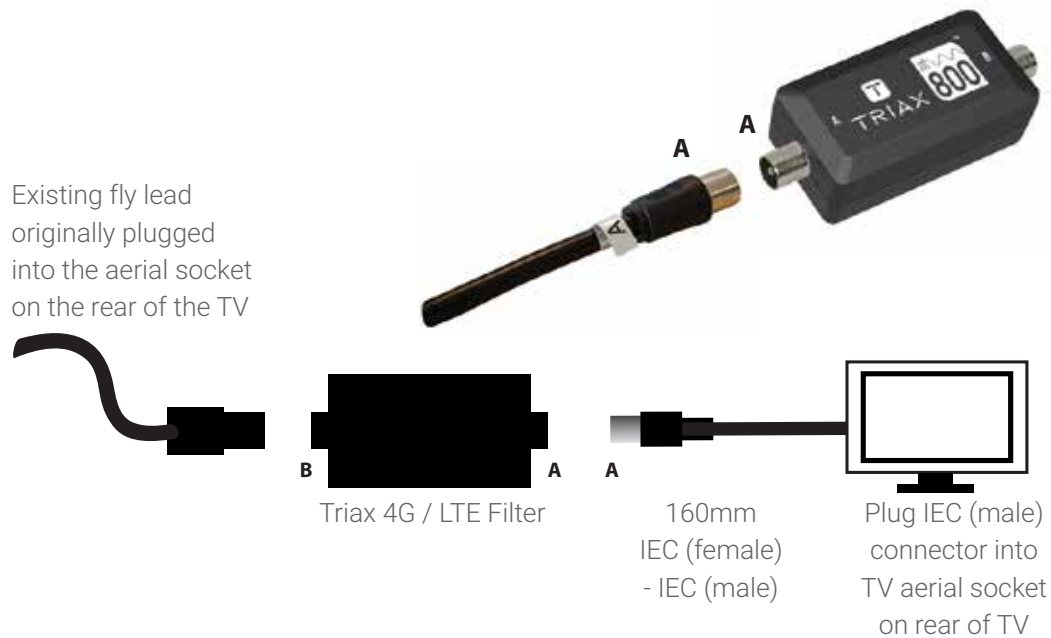
No. of inputs 1

No. of outputs 1



TRIAX® LTE filters

for indoor



Type:	LTE 700 LP filter Ch. 46	LTE 700 LP filter Ch. 48	4G/LTE 800 Ch. 59	LTE 700 LP filter Ch. 58	LTE 700 LP filter Ch. 59
Art. no.	314178	314176	314080	360112	360113
Type	LTE filter	LTE filter	LTE filter	LTE filter	LTE filter
FREQUENCY					
Input 1 - frequency	5...678MHz	5...694MHz	5...782MHz	47...774MHz	47...782MHz
Input 1 - stop channel			59	58	59
LOSS					
Input 1 - Rejection	> 50.0dB	> 50.0dB		50.0 @791MHzdB	20.0 @791MHzdB
Input 1 - through loss	1.0dB	0.8...3.0dB	<4.0dB	≤ 6.5@774MHzdB	≤ 6.5@782MHzdB
DC Passthrough	Yes (30VDC / 1A)	Yes (30VDC / 1A)	Yes (12VDC/300mA)	Yes (max. 500mA)	Yes (max. 500mA)
CONNECTORS					
Connector Type	IEC-male / IEC-female	IEC-male / IEC-female	IEC-male / IEC-female	F-female	F-female
Number of inputs	1	1	1	1	1
Number of outputs	1	1	1	1	1
MECHANICAL					
Colour			Black		
Height (mm)	Ø 11 mm	Ø 11 mm	22 mm	Ø 11 mm	Ø 11 mm
Length (mm)			82 mm		
Width (mm)	45 mm	45 mm	32mm	45 mm	45 mm
Remarks			Kit contains: 4G Filter/Fly Lead Adhesive pad User Guide		

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX

TRIAX[®] high quality power supplies

in an elegant design



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features

TRIAX power supplies, some with LTE filters, are indoor power supplies for masthead amplifiers, providing a 'last defence' filter function against local LTE/4G interference. Easy to install, they plug into any EU VDE Mains wall outlet.

- F-connectors for maximum shielding.
- Green LED indication of Mains power.
- White indoor housing.
- LTE filter 6-23 dB, (790-821MHz).
- High current load possible, 12 VDC, 100mA.
- For mains power, 230 VAC, 50/60 Hz.



IFP 101 LTE 800 PSU
+12Vdc - 100mA
1 output

Art. No. 370102
EAN Number
5702663701021



IFP 102 LTE 700 PSU
+12Vdc - 100mA
2 outputs

Art. No. 370114
EAN Number
5702663701144



IFP 101 LTE 700 PSU
+12Vdc - 100mA
1 output

Art. No. 370113
EAN Number
5702663701137



F 100/1 LTE 800 PSU
+12Vdc - 100mA
1 output

Art. No. 370111
EAN Number
5702663701113



IFP 102 LTE 800 PSU
+12Vdc - 100mA
2 outputs

Art. No. 370109
EAN Number
5702663701090



IEC 100/1 LTE 800 PSU
+12Vdc - 100mA
1 output

Art. No. 370112
EAN Number
5702663701120



TRIAX[®] high quality power supplies

in an elegant design



Type:	IFP 101 Power supply LTE 800	IFP 101 Power supply LTE 700	IFP 102 Power supply LTE 800	IFP 102 Power supply LTE 700	LTE F 100/1 Power supply LTE 800	LTE IEC 100/1 Power supply LTE 800
Art. no.	370102	370103	370109	370114	370111	370112
CHARACTERISTICS						
Type	PSU	PSU	PSU	PSU	PSU	PSU
FREQUENCY						
Band	VHF/UHF	VHF/UHF	VHF/UHF	VHF/UHF	VHF/UHF	VHF/UHF
Frequency range	5-790MHz	5-694MHz	5-790MHz	5-790MHz	5-790 MHz	5-790 MHz
LOSS						
Through loss	<2.0dB	dB	6.0dB	6.0dB	dB	dB
ELECTRICAL						
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL						
AC Supply voltage	230VAC	230VAC	230VAC	230VAC	230Vac +/- 10%, 3VAVAC	230Vac +/- 10%, 3VAVAC
PSU out DC voltage	12VDC	12VDC	12VDC	12VDC	12VDC	12VDC
PSU out max. DC current	100mA	100mA	100mA	100mA	mA	mA
CONNECTORS						
Connector Type	F-female	F-female	F-female	F-female	F-female	IEC-female
Number of inputs	1	1	1	1	1	1
Number of outputs	1	1	2	2	1	1
MECHANICAL						
Colour	White	White	White	White	Antrazit	Antrazit
Height (mm)	70mm		70mm		200mm	200mm
Width (mm)	140mm		140mm		88mm	88mm
Remarks					Screened Housing, gold plated connectors, UK plug only	Screened Housing

TERRESTRIAL
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CABLE TV
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HEADENDS
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CABLES &
CONNECTORS

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TAPS & SPLITTER

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Common features

TRIAX power supplies and power inserters are indoor power supplies for masthead amplifiers and UFO omnidirectional aerials:

- F-connectors for maximum shielding.
- Green LED indication of mains power.
- White indoor housing.
- LTE filter 6-23 dB, (790-821MHz).
- High current load possible, 12 VDC, 100mA.
- For Mains Power, 230 VAC, 50/60 Hz.



IFP 501 Power supply +12Vdc - 1 output - 85mA

Art. No. 339501

EAN Number 5702663395015

No. of inputs 1

No. of outputs 1



IFP 504 Power Supply +24Vdc - 2 outputs - 45mA

Art. No. 339504

EAN Number 5702663395046

No. of inputs 1

No. of outputs 2



IFP 502 Power Supply +12Vdc - 2 outputs - 85mA

Art. No. 339502

EAN Number 5702663395022

No. of inputs 1

No. of outputs 2



IFP 505 Power supply +5Vdc 1 output - 45mA

Art. No. 339505

EAN Number 5702663395053

No. of inputs 1

No. of outputs 1



IFP 503 Power supply +24Vdc - 1 output - 45mA

Art. No. 339503

EAN Number 5702663395039

No. of inputs 1

No. of outputs 1



TRIAX[®] high quality power supplies

in an elegant design



IFP 522 Power Supply/Inserter +12Vdc - for UFO aerials

Art. No. 339522

EAN Number 5702663395220

No. of inputs 2

No. of outputs 2



Type:	IFP 501 Power supply	IFP 502 Power Supply	IFP 503 Power supply	IFP 504 Power Supply	IFP 505 Power supply	IFP 522 Power Supply / Inserter
Art. no.	339501	339502	339503	339504	339505	339522
CHARACTERISTICS						
Type	Power Supply					UFO Aerials
FREQUENCY						
Band	VHF/UHF	VHF/UHF	VHF/UHF	VHF/UHF	VHF/UHF	VHF/UHF
Frequency range	47-862MHz	47-862MHz	47-862MHz	47-862MHz	47-862MHz	47-862MHz
LOSS						
Through loss	1.0dB	4.0dB	1.0dB	4.0dB	1.0dB	4dB
ELECTRICAL*						
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL						
AC Supply voltage	230VAC	230VAC	230VAC	230VAC	230VAC	230VAC
PSU output						
DC voltage	12VDC	12VDC	24VDC	24VDC	5VDC	12VDC
PSU output						
max. DC current	85mA	85mA	45mA	45mA	45mA	85mA
CONNECTORS						
Connector Type	F-female	F-female	F-female	F-female	F-female	F-female
Number of inputs	1	1	1	1	1	2
Number of outputs	1	2	1	2	1	2
MECHANICAL						
Colour	white	white	white	white	white	white
Height (mm)	61mm	61mm	61mm	61mm	61mm	61mm
Width (mm)	118mm	118mm	118mm	118mm	118mm	118mm
Packing QTY	1	1	1	1	1	1
Remarks						F-connector/ DC jack and red/black cable for battery

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TRIAX[®] indoor multiband amplifiers

GNS multiband amplifiers with fix selective paths



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Common features

High performance low-noise multi band amplifiers for both analogue and digital signals.

The amplifiers have up to four highly selective band inputs and one output, and are excellent for use in small and medium sized distribution systems where signals are received via terrestrial antennas.

They are also recommended for combining FM, DVB-T and DAB reception with SAT reception in a SMATV distribution network.



GNS 20 - multiband amplifier - 3 input

Art. No. 339120

EAN Number
5702663391208



GNS 35 - multiband amplifier - 4 input

Art. No. 339135

EAN Number
5702663391352



GNS 30 - multiband amplifier - 4 input

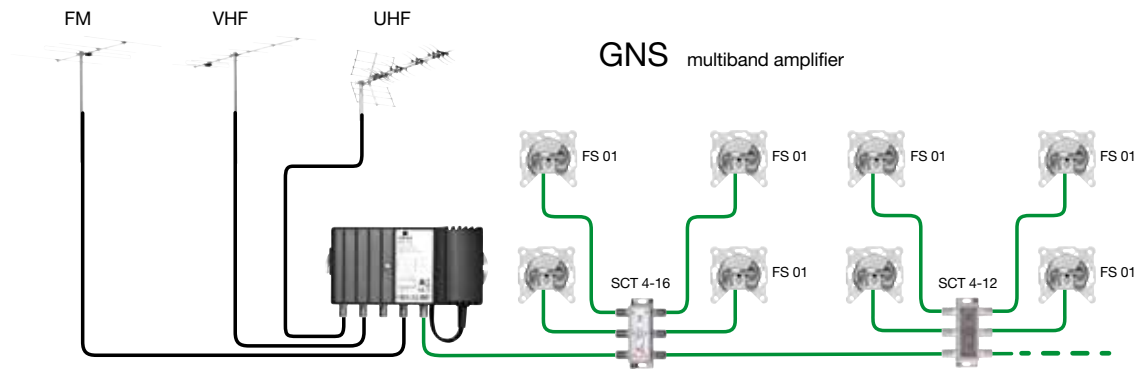
Art. No. 339130

EAN Number
5702663391307



TRIAX[®] indoor multiband amplifiers

GNS multiband amplifiers



Type:	GNS 20 m ultiband amplifier 3 input	GNS 30 multiband amplifier 4 input	GNS 35 multiband amplifie 4 input
Art. no.	339120	339130	339135
CHARACTERISTICS			
Output level @ IMD 2	102.0dBμV	105.0dBμV	110.0dBμV
Output level @ IMD 3	113.0dBμV	115.0dBμV	121.0dBμV
FREQUENCY			
Input 1 - band	UHF	UHF	UHF
Input 1 - frequency	470-862MHz	470-862MHz	470-862MHz
Input 2 - band	BIII	BIII	BIII
Input 2 - frequency	174-230MHz	174-230MHz	174-230MHz
Input 3 - band		BI	UHF
Input 3 - frequency		47-68MHz	470-860MHz
Input 4 - band	BI/FM	FM	BI/FM
Input 4 - frequency	47-68/ 87.5-108MHz	87.5-108MHz	47-68/ 87.5-108MHz
GAIN			
Input 1 - gain	22.0dB	31.0dB	35.0dB
Input 1 - noise figure	4.0dB	4.0dB	7.0dB
Input 2 - gain	20.0dB	30.0dB	34.0dB
Input 2 - noise figure	4.0dB	4.0dB	5.0dB
Input 3 - gain		30.0dB	35.0dB
Input 3 - noise figure		4.0dB	7.0dB
Input 4 - gain	20.0dB	30.0dB	34.0dB
Input 4 - noise figure	4.0dB	4.0dB	5.0dB
ELECTRICAL			
Impedance	75Ω	75Ω	75Ω
OPERATIONAL			
Level control at all inputs	0...-20dB	0...-20dB	0...-20dB
Operating temp. range	-25 ... + 55°C	-25 ... + 55°C	-25 ... + 55°C
AC Supply voltage	230 ±10%VAC	230 ±10%VAC	230 ±10%VAC
Power Consumption (typ.)	3.5W	6.0W	7.5W
Reference standards	EN 50083-3 - Class 2 / EN 50083-1; EN 60065 / EN 50083-2 / RoHS 2002/95/EG compliant		
CONNECTORS			
Number of inputs	3	4	4
Number of outputs	1	1	1
RF connector - input	F-female	F-female	F-female
RF connector - output	F-female	F-female	F-female
MECHANICAL			
Packing QTY	1	1	1

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TRIAX[®] programmable amplifiers

TMB multi band amplifiers with programmable paths



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Common features

Everything you need for amplifying and distributing a large number of signals into a network:

- 10 highly selective and adjustable filters in the UHF frequency range secure high flexibility. Each of these clusters can have 1-7 channels (56 MHz) bandwidth.
- High flexibility
- Switchable input amplifier stage
- 6 inputs: FM/DAB/VHF/UHF and 3 UHF inputs split over 10 UHF programmable clusters
- Automatic or manual levelling of the signal
- Easy programming – designed for both digital and analogue operation

The TMB 2000 Terrestrial Channel Processor

The TMB 2000 Terrestrial Channel Processor filters, converts and amplifies multiple antenna signals in a highly compact headend unit. Up to 4 VHF/UHF aerials with more than 50 channels and an FM antenna can be connected. Channels are selectively processed into an array of terrestrial broadcast stations, gained and equalised at high levels in order to drive a coaxial MATV distribution network in multi-dwellings and housing blocks.

Unrivalled flexibility

- 4 TV antenna inputs for mixing more than 50 VHF and UHF channels
- Separate FM antenna input
- Straightforward filtering and channel conversion

Highest selectivity

- Low interference between antenna signals
- Automatic LTE protection (4G/5G) caused by 50dB suppression on adjacent channels

Straightforward and reliable

- Easy to set up
- Copy configurations quickly by SD card
- Input levels readout
- Real-time AGC
- Compact size
- Professional mains adapter



TMB 100
Prog. Multiband AMP.
5 input - TER

Art. No. 360223

EAN Number
5702663602236



TMB 100S
Prog. Multiband AMP.
6 input - TER + SAT

Art. No. 324580

EAN Number
5702663245808



TMB 2000
Terrestrial Channel
Processor
4 input + TER

Art. No. 360235

EAN Number
5702663602359



TRIAX[®] programmable amplifiers

TMB with programmable paths

Type:	TMB 100 Prog. Multiband AMP. 5 input - TER	TMB 100S Prog. Multiband AMP. 6 input - TER + SAT	TMB 2000 Terrestrial Ch. Processor 4 VHF/UHF + 1 FM
Art. no.	360223	324580	360235
CHARACTERISTICS			
Input level - FM	< 90dB μ V	< 90dB μ V	37...77dB μ V
Input level - BIII/DAB	< 80dB μ V	< 80dB μ V	40...109 (@64QAM)dB μ V
Input level - UHF	< 95dB μ V	< 95dB μ V	40...109 (@64QAM)dB μ V
MER			35 (@VHF/UHF)dB
Output level BI/FM			112 @FMdB μ V
Output level BIII/DAB - 170-230 MHz	120dB μ V	120dB μ V	
Output level @ 60dB IMD - VHF			120 (113 @1MUX, 110 @6MUX)dB μ V
Output level @ 60dB IMD - UHF	117dB μ V	115dB μ V	120 (113 @1MUX, 110 @6MUX)dB μ V
Selectivity			35dB/1MHz
Test point			-30dB
FREQUENCY			
Filter Bandwidth VHF	7 (1ch)MHz	7 (1ch)MHz	
Filter Bandwidth UHF	8...56 (1...7ch)MHz	8...56 (1...7ch)MHz	
Filter Selectivity @ 16 MHz	16dB	16dB	
Frequency range BI/FM	47...108MHz	47...108MHz	88...108MHz
Frequency range BIII/DAB	174...240MHz	174...240MHz	174...240MHz
Frequency range UHF	470...862 (LTE on: 790)MHz	470...862 (LTE on: 790)MHz	470...862MHz
Frequency range SAT		950...2150MHz	
Number of channel filters	10	10	>50
LTE protection			Auto select: 694/790/OFF
ESD protection			All inputs
Conversion			Yes - any VHF-UHF ch. to any VHF-UHF ch.
GAIN			
Gain - FM [47-108 MHz]	32dB	32dB	35 (Channel AGC) dB
Gain - BIII/DAB [170-230 MHz]	48dB	48dB	>45 (Channel AGC)dB
Gain - UHF [470-790 MHz]	55dB	55dB	>55 (Channel AGC)dB
Gain - Satellite [950-2150 MHz]		40dB	
Noise figure BI/FM	9dB	9dB	
Noise figure VHF	5dB	5dB	
Noise figure UHF	7dB	7dB	
Noise figure SAT		7dB	
LOSS			
Attenuation	0...20dB	0...20dB	0...20 (FM, VHF, UHF) 0...20 (general all inputs)dB 9 dB
Slope adjustment			
RETURN LOSS			
Return Loss	>8dB	>8dB	
ELECTRICAL			
Impedance	75 Ω	75 Ω	75 Ω
OPERATIONAL			
Screening Efficiency	EN50083-2 (Class A)	EN50083-2 (Class A)	EN50083-2 (Class A)
Operating temperature range	-5...+40°C	-5...+40°C	-5 - +50°C
AC Supply voltage	100...240VAC	100...240VAC	100...240VAC
Power Consumption (typ.)	9...16W	12...18W	16W
Remote Supply	12...24 / 80V/mA	12...24 / 80V/mA	12...24/100V/mA
CONNECTORS			
Connector IN	F-female	F-female	F-female
Connector OUT	F-female	F-female	F-female
Number of inputs	5	5	4 VHF/UHF +1 FM
Number of outputs	1	1	1 FM/VHF/UHF + 1 Test port
MECHANICAL			
Dimensions product (H x D x W)	220x220x50mm	220x220x50mm	165x58x165mm
Packing QTY	1	1	1
Net Weight	1,667kg	1,667kg	0,815kg
Remarks			SD slot for copy configuration & upgrade features

TERRESTRIAL
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TRIAX® indoor multiband amplifiers

IFB indoor booster amplifiers



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TECHNICAL
APPENDIX

DVB-C Cable		HD TV	EASY 	ECO 	Multi-room 	EASY mounting 	Warranty 2 Years
-----------------------	--	-----------------	-----------------	----------------	-----------------------	-----------------------------	----------------------------

Common features

The IFB amplifier series is in same elegant white design as the IFA distribution amplifiers, and are excellent for use in a household connected to a cable network with many channels.

- F-connector
- Wide range with 2 outputs
- Separate adjustable gain on VHF and UHF
- Click-on wall mounting



IFB 402
Indoor booster amplifier

Art. No. 339402

EAN Number
5702663394025



IFB 404
Indoor booster amplifier

Art. No. 339404

EAN Number
5702663394049



IFB 403
Indoor booster amplifier

Art. No. 339403

EAN Number
5702663394032



IFB 406
2-way Terrestrial Amplifier

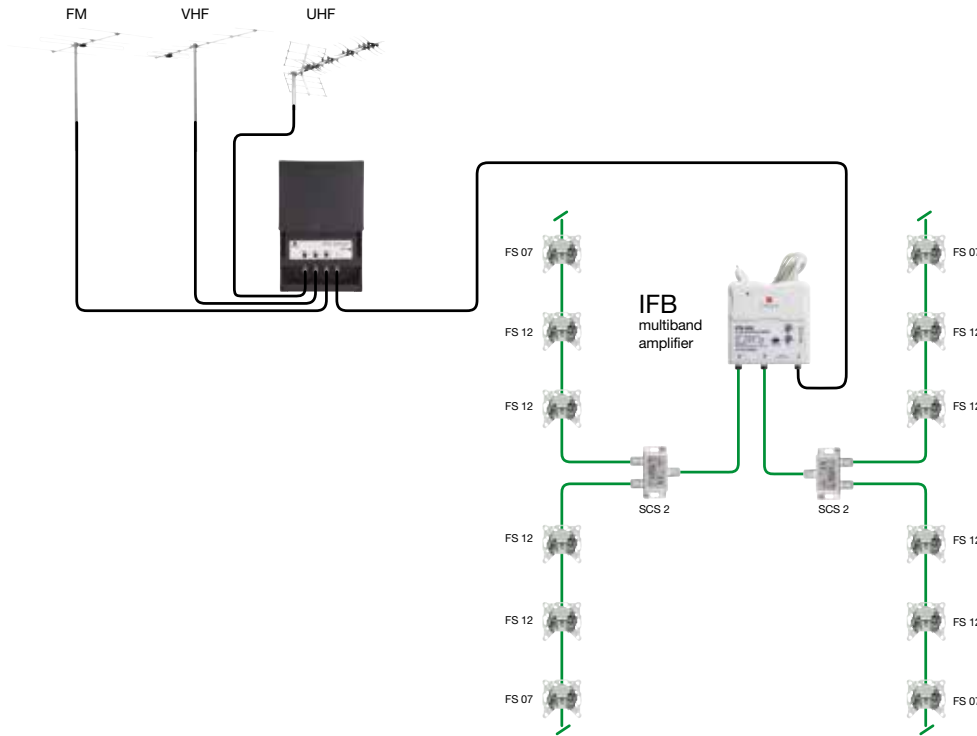
Art. No. 339406

EAN Number
5702663394063



TRIAX® indoor multiband amplifiers

IFB booster amplifiers



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Type:	IFB 402 Indoor booster amplifier	IFB 403 Indoor booster amplifier	IFB 404 Indoor booster amplifier	IFB 406 2-way Terr. Amplifier
Art. no.	339402	339403	339404	339406
CHARACTERISTICS				
Output level IMD 3, EN 50083-5	2 X 107.0dBμV	2 X 107.0dBμV	2 X 107.0dBμV	2 x 105dBμV
FREQUENCY				
Band (frequency)	VHF/UHF	VHF/UHF	VHF/UHF	VHF/UHF
Frequency range	VHF/UHF	VHF/UHF	VHF/UHF	VHF/UHF
GAIN				
Gain	6-16/0-10dB	6-16/6-16dB	7-17dB	15-30/15-30dB
ELECTRICAL				
Impedance	75Ω	75Ω	75Ω	75 Ω
OPERATIONAL				
Certification	CE	CE	CE	CE
AC Supply voltage	230VAC	230VAC	230VAC	190-260VAC
Power Consumption (typ.)	3W	3W	3W	3W
CONNECTORS				
Input connector	F-con	F-con	F-con	F-con
Number of inputs	1	1	1	1
Number of outputs	2	2	2	2
Output connectors	F-con	F-con	F-con	F-con
MECHANICAL				
Packing QTY	1	1	1	1
Remarks	2 separat UHF and VHF attenuator	2 separat UHF and VHF attenuator	1 attenuator	2 separat UHF and VHF attenuator

Notes

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TRIAX® Dishes, Fibre, LNB & Multiswitches

flexible solutions - easy installation

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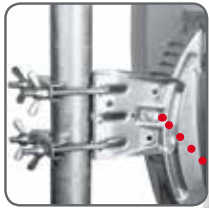
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TRIAX[®] high quality satellite dishes

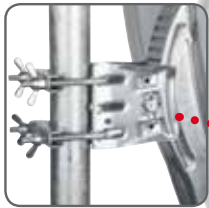
crystal clear signals to your TV

Quick and easy installation

- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX



Patented elevation brackets with accurate setting scales: Quick and easy installation and adjustment to your desired satellite.



Secure fitting of the feed-arm: The coaxial cable runs through the feed-arm to the back of the dish. Here, an additional plastic locking device keeps everything in place.



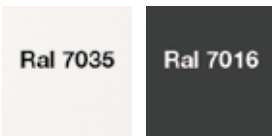
Serrated, non-slip mast brackets ensure the stability of the dish.



The pre-mounted feed-arm just needs unfolding. The LNB holder is simply clicked on.



The two Triax standard colours



On the TD 110 the feed-arm is not pre-mounted. Instead, for stable mounting, it is secured with an additional wing-nut on the rear of the dish.



The UV-resistant plastic Ø40 mm LNB holder is quickly clicked on to the feed-arm. An adapter is provided for Ø23 mm LNBs.



TRIAX® flexible dish solutions

standard or customised to your requirements

Choose TD dishes

The most important part of an installation is the quality of the incoming signal.



TD64 TD78 TD88 TD110

Standard assortment

Choose between:

- Size (height) 64, 78, 88 or 110 cm
- Colours - RAL 7016 or 7035
- Accessorie bags - Wing nut or 6-edge flange nut with 1 or 2 mastclamps depending on dishsize
- Packaging: Single pack or bulk single pack*

All TRIAX TDS series of dishes are manufactured in galvanised steel and are supplied with a mounting kit and the TRIAX logo on the reflector.

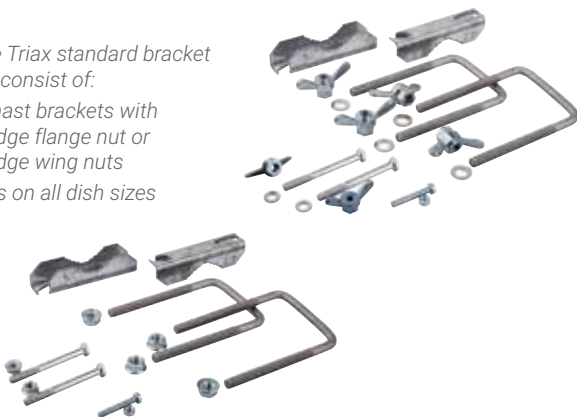
All standard LNBS can be fitted and our range of wall brackets provide different options for your installation.



A new aluminium LNB bracket is now available for the TD-series

The Triax standard bracket set consist of:

- 2 mast brackets with 6-edge flange nut or 6-edge wing nuts
- fits on all dish sizes



Our standard solutions meet most needs

We know no two customers are alike, which is why you can choose from a range of standard solutions or customised dishes and packaging upon request.

As a leading satellite dish manufacturer, we offer "one-stop-shopping," with all the accessories you need for the perfect installation.

We have also made installation quick and easy, as many parts are pre-mounted on the dish meaning few tools are needed.

**Bulk single pack = 50 or 100 dishes per package, accessories are not pre-mounted but are delivered single boxed to marry with dish reflector.*



Customise to your requirements

We can meet most special requests for:

- Material
- Sizes
- Colours
- Nuts and bolts
- Customised packaging and/or logo

Please contact us to discuss how we can benefit your business.

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
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TRIAX® TD 64 series single pack

high quality satellite dishes



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-
- LNB diametre**
Ø25/40 mm
- DVB-S**
Satellite
- HD**
TV
- EASY mounting**
- Warranty**
2 Years
- Gain**
-



**TD64 std. RAL 7016,
singlepack - Flange nut**

Art. No. 120611

EAN Number
5702661206115



**TD64 std. RAL 7016,
singlepack - Wing nut**

Art. No. 120612

EAN Number
5702661206122



**TD64 std. RAL 7035,
singlepack - Flange nut**

Art. No. 120621

EAN Number
5702661206214



**TD64 std. RAL 7035,
singlepack - Wing nut**

Art. No. 120622

EAN Number
5702661206221



Singlepacked



Bulk Singlepacked



TRIAX® TD 64 series bulk pack

high quality satellite dishes



**TD64 std. RAL 7016,
100 pcs. bulk pack
Flange nut**

Art. No. 120613
EAN Number
5702661206139



**TD64 std. RAL 7016,
100 pcs. bulk pack
Wing nut**

Art. No. 120614
EAN Number
5702661206146



**TD64 std. RAL 7035,
100 pcs. bulk pack
Flange nut**

Art. No. 120623
EAN Number
5702661206238



**TD64 std. RAL 7035,
100 pcs. bulk pack
Wing nut**

Art. No. 120624
EAN Number
5702661206245

TECHNICAL DATA	TD 64 Singlepack	TD 64 Bulk Singlepack
Art. no.	120611/120612 120621/120622	120613/120614 120623/120624
CHARACTERISTICS		
Elevation range	10-50 / 45-80°	10-50 / 45-80°
G/T LNB 0.7	16dB/K	16dB/K
X-polarisation	>27dB	>27dB
Offset angle	26°	26°
FREQUENCY		
Frequency range	10.7 - 12.75GHz	10.7 - 12.75GHz
GAIN		
Gain @ 11.7 GHz	35.8dBi	35.8dBi
MECHANICAL		
Net Weight	2,300kg	2,300kg
Packing QTY	1	100
Remarks	Singlepacked	Bulk Singlepacked
Material	Galvanized Steel	Galvanized Steel
Height (cm)	65cm	65cm
Width (cm)	60cm	60cm
LNB holder	23-40mm / Black	23-40mm / Black
Mast bracket diameter	<60mm	<60mm
Reflector type	Offset	Offset
Beamwidth	3.1°	3.1°
Windload @ 42 m/s	445N	445N
Dish colour	RAL 7016 RAL 7035	RAL 7016 RAL 7035
Arm colour	raw	raw
Back structure colour	raw	raw
Dimensions carton (H x D x W)	658 x 658 x 115	658 x 658 x 115
Finish	Polyester powder coat	Polyester powder coat

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high quality satellite dishes



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**TD78 std. RAL 7016,
singlepack - Flange nut**

Art. No. 120711

EAN Number
5702661207112



**TD78 std. RAL 7016,
singlepack - Wing nut**

Art. No. 120712

EAN Number
5702661207129



**TD78 std. RAL 7035,
singlepack - Flange nut**

Art. No. 120721

EAN Number
5702661207211



**TD78 std. RAL 7035,
singlepack - Wing nut**

Art. No. 120722

EAN Number
5702661207228



Singlepacked



Bulk Singlepacked



TRIAX® TD 78 series bulk pack

high quality satellite dishes



**TD78 std. RAL 7016,
100 pcs. bulk pack
Flange nut**

Art. No. 120713

EAN Number
5702661207136



**TD78 std. RAL 7016,
100 pcs. bulk pack
Wing nut**

Art. No. 120714

EAN Number
5702661207143



**TD78 std. RAL 7035,
100 pcs. bulk pack
Flange nut**

Art. No. 120723

EAN Number
5702661207235



**TD78 std. RAL 7035,
100 pcs. bulk pack
Wing nut**

Art. No. 120724

EAN Number
5702661207242

TECHNICAL DATA	TD 78 Singlepack	TD 78 Bulk Singlepack
Art. no.	120711/120712 120721/120722	120713/120714 120723/120724
CHARACTERISTICS		
Elevation range	10-60°	10-60°
G/T LNB 0.7	17.3dB/K	17.3dB/K
X-polarisation	>27dB	>27dB
Offset angle	26°	26°
FREQUENCY		
Frequency range	10.7 - 12.75GHz	10.7 - 12.75GHz
GAIN		
Gain @ 11.7 GHz	37.1dBi	37.1dBi
MECHANICAL		
Net Weight	4,000kg	4,000kg
Packing QTY	1	100
Remarks	Singlepacked	Bulk Singlepacked
Material	Galvanized Steel	Galvanized Steel
Height (cm)	78cm	78cm
Width (cm)	70cm	70cm
LNB holder	23-40mm / Black	23-40mm / Black
Mast bracket diameter	<60mm	<60mm
Reflector type	Offset	Offset
Beamwidth	2.6°	2.6°
Windload @ 42 m/s	619N	619N
Dish colour	RAL 7016 RAL 7035	RAL 7016 RAL 7035
Arm colour	raw	raw
Back structure colour	raw	raw
Dimensions carton (H x D x W)	773 x 778 x 126	773 x 778 x 126
Finish	Polyester powder coat	Polyester powder coat

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TRIAX® TD 88 series single pack

high quality satellite dishes



TD88 std. RAL 7016, singlepack - Flange nut

Art. No. 120811

EAN Number
5702661208119



TD88 std. RAL 7016, singlepack - Wing nut

Art. No. 120812

EAN Number
5702661208126



TD88 std. RAL 7035, singlepack - Flange nut

Art. No. 120821

EAN Number
5702661208218



TD88 std. RAL 7035, singlepack - Wing nut

Art. No. 120822

EAN Number
5702661208225



Singlepacked



Bulk Singlepacked



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TRIAX® TD 88 series bulk pack

high quality satellite dishes



**TD88 std. RAL 7016,
100 pcs. bulk pack
Flange nut**

Art. No. 120813
EAN Number
5702661208133



**TD88 std. RAL 7035,
100 pcs. bulk pack
Flange nut**

Art. No. 120823
EAN Number
5702661208232



**TD88 std. RAL 7016,
100 pcs. bulk pack
Wing nut**

Art. No. 120814
EAN Number
5702661208140



**TD88 std. RAL 7035,
100 pcs. bulk pack
Wing nut**

Art. No. 120824
EAN Number
5702661208249

TECHNICAL DATA	TD 88 Singlepack	TD 88 Bulk Singlepack
Art. no.	120811/120812 120821/120822	120813/120814 120823/120824
CHARACTERISTICS		
Elevation range	10-60°	10-60°
G/T LNB 0.7	19.2dB/K	19.2dB/K
X-polarisation	>27dB	>27dB
Offset angle	26°	26°
FREQUENCY		
Frequency range	10.7 - 12.75GHz	10.7 - 12.75GHz
GAIN		
Gain @ 11.7 GHz	38.8dBi	38.8dBi
MECHANICAL		
Net Weight	5,800kg	5,800kg
Packing QTY	1	100
Remarks	Singlepacked	Bulk Singlepacked
Material	Galvanized Steel	Galvanized Steel
Height (cm)	95cm	95cm
Width (cm)	85cm	85cm
LNB holder	23-40mm / Black	23-40mm / Black
Mast bracket diameter	<60mm	<60mm
Reflector type	Offset	Offset
Beamwidth	2.0°	2.0°
Windload @ 42 m/s	902N	902N
Dish colour	RAL 7016 RAL 7035	RAL 7016 RAL 7035
Arm colour	raw	raw
Back structure colour	raw	raw
Dimensions carton (H x D x W)	937 x 942 x 150	937 x 942 x 150
Finish	Polyester powder coat	Polyester powder coat

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TRIAX® TD 110 series single pack

high quality satellite dishes



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**TD110 std RAL 7016,
singlepack - Flange nut**

Art. No. 120111

EAN Number
5702661201110



**TD110 std RAL 7016,
singlepack - Wing nut**

Art. No. 120112

EAN Number
5702661201127



**TD110 std RAL 7035,
singlepack - Flange nut**

Art. No. 120121

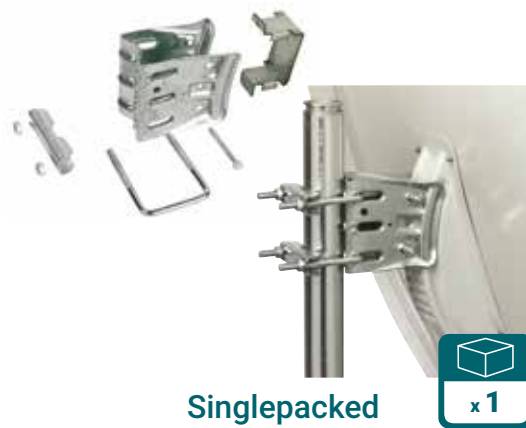
EAN Number
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**TD110 std RAL 7035,
singlepack - Wing nut**

Art. No. 120122

EAN Number
5702661201226



Singlepacked



Bulk Singlepacked



TRIAX® TD 110 series bulk pack

high quality satellite dishes



**TD110 std RAL 7016,
50 pcs. bulk pack
Flange nut**

Art. No. 120113
EAN Number
5702661201134



**TD110 std RAL 7016,
50 pcs. bulk pack
Wing nut**

Art. No. 120114
EAN Number
5702661201141



**TD110 std RAL 7035,
50 pcs. bulk pack
Flange nut**

Art. No. 120123
EAN Number
5702661201233



**TD110 std RAL 7035,
50 pcs. bulk pack
Wing nut**

Art. No. 120124
EAN Number
5702661201240

TECHNICAL DATA	TD 110 Singlepack	TD 110 Bulk Singlepack
Art. no.	120111/120112 120121/120122	120113/120114 120123/120124
CHARACTERISTICS		
Elevation range	10-60°	10-60°
G/T LNB 0.7	20.6dB/K	20.6dB/K
X-polarisation	>27dB	>27dB
Offset angle	26°	26°
FREQUENCY		
Frequency range	10.7 - 12.75GHz	10.7 - 12.75GHz
GAIN		
Gain @ 11.7 GHz	40.2dBi	40.2dBi
MECHANICAL		
Net Weight	8,900kg	8,900kg
Packing QTY	1	50
Remarks	Singlepacked	Bulk Singlepacked
Material	Galvanized Steel	Galvanized Steel
Height (cm)	105cm	105cm
Width (cm)	100cm	100cm
LNB holder	23-40mm / Black	23-40mm / Black
Mast bracket diameter	<60mm	<60mm
Reflector type	Offset	Offset
Beamwidth	1.8°	1.8°
Windload @ 42 m/s	1222N	1222N
Dish colour	RAL 7016 RAL 7035	RAL 7016 RAL 7035
Arm colour	raw	raw
Back structure colour	raw	raw
Dimensions carton (H x D x W)	1195 x 1070 x 155	1195 x 1070 x 155
Finish	Polyester powder coat	Polyester powder coat

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TRIAX® DAP series

fibre glass dishes



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DAP 610 - 60cm - RAL 1013

Art. No. 362610

EAN Number
3700113427899



DAP 611 - 60cm - RAL 7016

Art. No. 362611

EAN Number
3700113427905



DAP 710 - 70cm - RAL 1013

Art. No. 362710

EAN Number
3700113427912



DAP 711 - 70cm - RAL 7016

Art. No. 362711

EAN Number
3700113427929

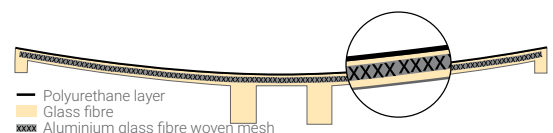


Singlepacked



Glass fibre DAP dishes

Made of polyester reflector with glass fibre, aluminium woven mesh and polyurethane lacquer on the reflector surface – our dishes are designed to survive speeds beyond the ETSI 300784 standard.



TRIAX® DAP series

fibre glass dishes



DAP 910 - 90cm - RAL 1013

Art. No. 362910

EAN Number
3700113427936



DAP 911 - 90cm - RAL 7016

Art. No. 362911

EAN Number
3700113427943

TECHNICAL DATA	DAP 610 - DAP 611	DAP 710 - DAP 711	DAP 910 - DAP 911
Art. no.	362610 362611	362710 362711	369910 362911
CHARACTERISTICS			
Elevation range	10-55°	10-55°	10-55°
G/T LNB 0.7			16.9 dB/K
X-polarisation	> 27dB	> 27dB	> 27dB
Offset angle	26°	26°	26°
FREQUENCY			
Frequency range	10.7 - 12.75GHz	10.7 - 12.75GHz	10.7 - 12.75GHz
GAIN			
Gain @ 12.625 GHz	36.0 dBi	37.3 dBi	39.7 dBi
MECHANICAL			
Net Weight	4.300kg	4.940kg	8.940kg
Packing QTY	1	1	1
Remarks	1 U-Bolt for mast mount	1 U-Bolt for mast mount	2 U-Bolt for mast mount
Material	Fibre glass	Fibre glass	Fibre glass
Height (cm)	61cm	72cm	94cm
Width (cm)	56cm	62.5cm	86cm
LNB holder	Plastic	Plastic	Plastic
Mast bracket diameter	Ø 40-60mm	Ø 40-60mm	Ø 50-60mm
Reflector type	Offset	Offset	Offset
Windload @ 42 m/s	378N	600N	846N
Dish colour	RAL 1013 RAL 7016	RAL 1013 RAL 7016	RAL 1013 RAL 7016
Arm material	Alu	Alu	Alu
Back structure colour	Galv. steel	Galv. steel	Galv. steel
Dimensions carton (H x D x W)	560 x 610	625 x 720	860 x 940
Remarks - 2nd. U bolt		Art. No. 362700	

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TRIAX[®] SAT Fibre Optics

integrated reception systems – remove the limits from your installation



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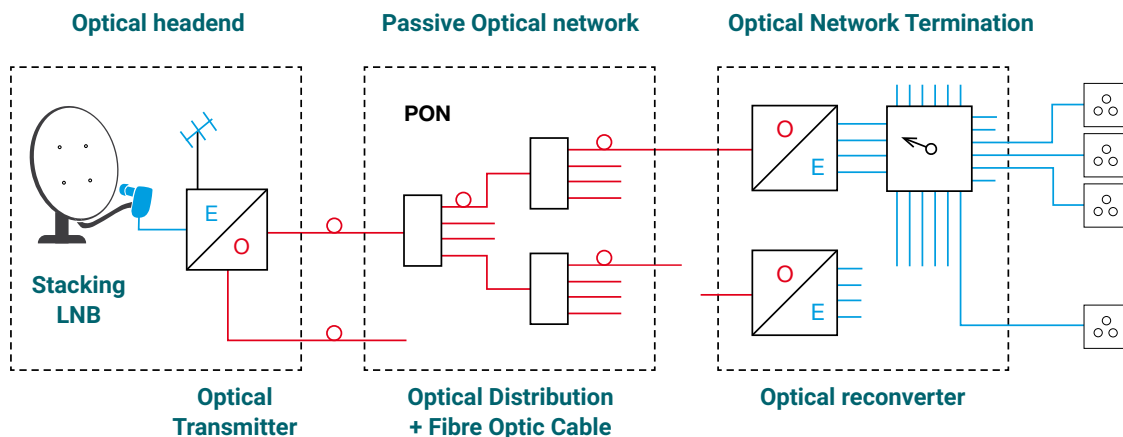


Television at the speed of light – the transmission choice for the future

- SAT IF distribution over fibre optics can supply many households over larger distances, with feed from a central satellite dish station
- Almost lossless transmission of satellite, DVB-T and DAB signals. Attenuation per 1000 m only about 0.3 dB
- Future-proof and widest possible variety of channels
- All 4 SAT IF signals are transmitted over one optical fibre by using a Full Band Stacking LNB
- Space-saving installation – a 3 mm optical fibre replaces five 7 mm coaxial cables
- Optical fibre with galvanic isolation
- Quick and easy installation by using pre-assembled fibre optical cables




Typical structure of optic fibre distribution system



TRIAX® SAT Fibre Optics

optical transmission technology – the SAT-TV coverage of tomorrow

Overview of TRIAX products for optical satellite IF transmission technology

System	Opto-LNB	Opto-IRS
Transmission capabilities SAT Terrestrial	1 SAT position/4 polarities -	1 SAT position/4 polarities FM, DTT, DAB
Technical concept	Stacking-LNB included with optical transmitter 1310 nm	Full band stacking-LNB with external optical transmitter 1310 nm
System components		
Stacking LNB	TOL 32, incl. integrated optical transmitter TOL 64, incl. integrated optical transmitter	TWL 01 with N connector
Optical transmitter		TOU 232 SA with 2 x opt. output
Optical re-converter	TVC TVQ TOM	TVC TVQ TOM
Components for extension Coaxial Active Splitter		TAS 04 + TUC 02 + TOU 232SA
Opto Repeater	TOE 02 + TOU 232 SA	TOE 02 + TOU 232 SA
Optical budget (max.)	TOL 32: 19 dB TOL 64: 22 dB	2 x 19 dB
Max. optical splitting	TOL 32: 32 TOL 64: 64	2x32 = 64
- with extension 4x (TAS 04+TOU 232SA)		256
- with extension 2x16x (TOE 02+TOU 232 SA)	1024	2048
- in total (TAS 04 + TOE 02)		8192

Key terms

PON

The Passive Optical Network (PON) is the distribution part of the network between optical headend and optical network termination with the Opto-Re-converters. The PON consists of passive fibre optic components, such as fibre cables and optical splitters.

Optical Split

The maximum optical split defines how many fibre lines with an optical termination unit on the optical reception side can be driven from the output of the optical transmitter. The maximum optical split of 32 for an Opto-LNB TOL 32 means that the optical signal can be split up to 32 fibre lines. Until that symmetrical split, the input signal on the optical reconverters still have a level to provide an electrical output signal in sufficient quality.

Optical Budget

The optical budget is the most important characteristic of an optical link. It defines the upper limit of the insertion loss of a fibre link in the PON.

The insertion loss of a link is the sum of the attenuation of all single network elements like splitters, cables and connectors in an optical link of the PON.

The maximum optical budget defines also the minimum input level of the optical re-converter. The minimum input level is the optical output power of the in dBm minus the max optical budget.
Example: the optical output power of the Opto-LNB TOL 32 is (+7 dB) and the max optical budgets is 19 dB. Thus the level of the optical signal on the input of the optical reconverter should not be less than 7 dBm - 19 dB = -12 dBm.

The optical budget in this catalogue is the fix specified max. optical link attenuation for all network design. The output power of the transmitters and the minimum input level of the reconverters are for rough information only.

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TRIAX® Fibre Optical LNB

stacking LNBs with integrated optical transmitter



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Common features

The Opto-LNB consists of a low noise block converter and an optical transmitter. The LNB stacks the 4 SAT-IF-bands into a super broadband IF of 950...5450 MHz frequency range. Thus the 4 SAT-IF-bands can be transmitted over one fibre line.

- Two versions of optical stacking LNBs are available with optical outputs for splitting to max. 32 or 64 fibre links.

- Optical wavelength 1310 nm
- The LNB is powered through the F Type connector or via the included external power supply
- Compatible with optical re-converter TVQ (Quatro) and TVC (Quad) as well as Opto Multiswitch TOM



TOL 32 - Optical SAT Fullband LNB, 32-way

Art. No. 307610

EAN Number
5702663076105



TOL32/C120 flange, Opt. SAT Fullband LNB, 32-way

Art. No. 307609

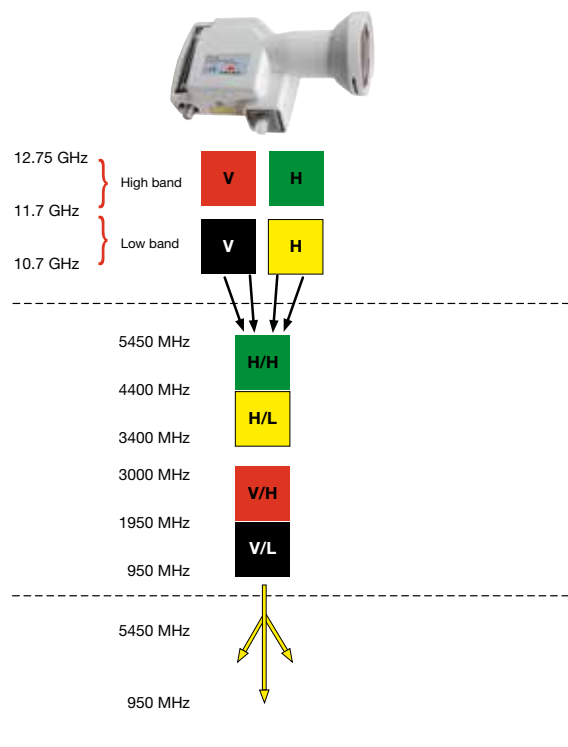
EAN Number
5702663076099



TOL 64 - Optical SAT Fullband LNB, 64-way

Art. No. 307611

EAN Number
5702663076112



TRIAX® Fibre Optical LNB

Opto-LNB for 1 satellite position, fibre splitting 32/64, 1310 nm.

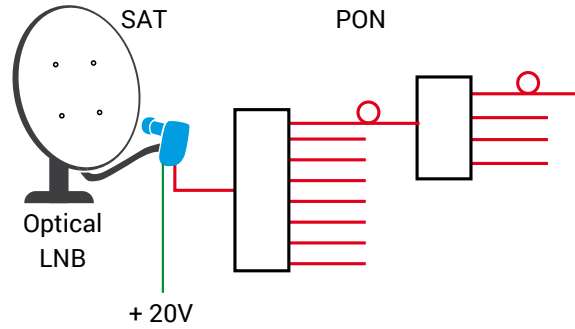


Figure: Optical LNB (LNB with FO output) for a satellite position

Type:	TOL 32 - Optical SAT Fullband LNB, 32-way	TOL32/C120 flange, Opt. SAT Fullband LNB, 32-way	TOL 64 - Optical SAT Fullband LNB, 64-way
Art. no.	307610	307609	307611
OPTICAL CHARACTERISTICS			
Wavelength optical	1310nm	1310nm	1310nm
Optical output level (nom. @ 25 °C)	7.0dBm	7.0dBm	8.5dBm
Optical budget for PON (max.)	19.0dB	19.0dB	22dB
Optical splitting in PON (max.)	32	32	64
CHARACTERISTICS			
Laser class	1M	1M	1M
Feedhorn diameter	40mm	C 120 flange	40mm
Reception frequency range	10.7 - 12.75GHz	10.7 - 12.75GHz	10.7 - 12.75GHz
Reception polarization	horizontal & vertical	horizontal & vertical	horizontal & vertical
SAT-IF vert. band, stacked VL + VH	0.950 - 3.0GHz	0.950 - 3.0GHz	0.950 - 3.0GHz
SAT-IF horiz. band, stacked HL + HH	3.4 - 5.45GHz	3.4 - 5.45GHz	3.4 - 5.45GHz
GAIN			
Gain	62 - 72dB	62 - 72dB	62 - 72dB
Noise figure (typical)	0.5dB	0.7dB	0.5dB
OPERATIONAL			
DC Operating voltage	12VDC	12VDC	20VDC
DC Current consumption (typ.)	< 450mA	< 450mA	< 300mA
External PSU	Included	Included	Included
External PSU item ID	307658 (TPS322)	307658 (TPS322)	307657 (TPS323)
Temperature - operating	-30 ... +60°C	-30 to +60°C	-30 ... +60°C
Temperature - storage	-40 ... +70°C	-40 to +70°C	-40 ... +70°C
Weather Proof Rating	IP 65	IP 65	IP 65
CONNECTORS			
Connector Optical	Optical - FC/PC	Optical - FC/PC	Optical - FC/PC
Connector power supply	F-female	F-female	F-female
MECHANICAL			
Remarks	230 VAC -> 12 VDC/0.5A	230 VAC -> 12 VDC/0.5A	100-250 VAC -> 20 VDC/1.2 A
Dimensions product (H x D x W)	173 x 108 x 68 mm	95 x 108 x 68 mm	173 x 108 x 68 mm
Packing QTY	1	1	1

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX

TRIAX® Integrated Reception System

IRS 1 for 1 SAT-position + DTT/DAB/FM



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features

- The TOU 232 kit consists of the stacking LNB TWL 01, Optical Transmitter TOU 232 SA (SAT + Terrestrial), N-cable TUC 02 (2m), TAS 04, PSU 20V, Mast mounting plate, terminator.
- The 4 SAT bands are stacked in the full-band LNB TWL 1. The SAT IF signal 950...5450 MHz is connected via the high performance coaxial N-cable TUC to the optical transmitter TOU 232 SA.
- The terrestrial signals are connected to the optical transmitter directly.
- External PSU 20V (included)
- The optical transmitter converts the SAT and Terr signal into 2 optical output signals with 1310 nm wavelength
- Each optical output can be split up to 32 ways with each output feeding a TVC 05/06 or TVQ 05/06 reconverter or a TOM multiswitch
- The optical signal can be split up to 8 x 32 ways by using the active coaxial splitter TAS 04 that can drive up to 4 x TOU 232 SA optical transmitters

TWL 01 - SAT Fullband Stacking LNB

Art. No. 307612

EAN Number
5702663076129



TOU 232 - Optical Fullband LNB Kit, SAT+TER

Art. No. 307614

EAN Number
5702663076143



TOU 232 SA - Optical SAT-Fullband transmitter

Art. No. 307615

EAN Number
5702663076150



TRIAX® Integrated Reception System

IRS 1 for 1 SAT-position + DTT/DAB/FM

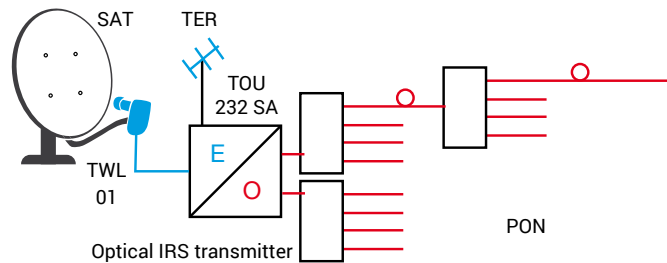


Figure 3:
Optical IRS for a satellite position plus terrestrial

Type:	TWL 01 - SAT Fullband Stacking LNB	TOU 232 - Optical Fullband LNB Kit, SAT+TER	TOU 232 SA - Optical SAT-Fullband transmitter
Art. no.	307612	307614	307615
OPTICAL CHARACTERISTICS			
Wavelength optical		1310nm	1310nm
Optical output level (nom. @ 25 °C)		2 x 7.0dBm	2 x 7.0dBm
Optical budget for PON (max.)		2 x 19.0dB	2 x 19.0dB
Optical splitting in PON (max.)		2 x 32	2 x 32
CHARACTERISTICS			
Laser class		1M	1M
Feedhorn diameter	40mm	40mm	
Reception frequency range	10,7 - 12,75GHz	10.7 - 12.75GHz	
Reception polarization	horizontal & vertical	horizontal & vertical	
SAT-IF, full stacked on coax output	0.95 - 5.450GHz	0.95 - 5.450GHz	
SAT-IF vert. band, stacked VL + VH	0.950 - 3.0GHz	0.950 - 3.0GHz	
SAT-IF hor. band, stacked HL + HH	3.4 - 5.45GHz	3.4 - 5.45GHz	
FREQUENCY			
TER input frequency range DTT		470 - 854MHz	470 - 854MHz
TER input frequency range DAB		213 - 230MHz	213 - 230MHz
TER input frequency range FM		87 - 108MHz	87 - 108MHz
GAIN			
Gain	62 - 72dB	62 - 72dB	
Noise figure (typical)	0.5dB	0.5dB	
TER gain flatness		< 4dB	< 4dB
TER noise figure		< 10dB	< 10dB
OPERATIONAL			
AC Supply voltage		100...250VAC	100...250VAC
DC Operating voltage		20VDC	20VDC
DC Current consumption (typ.)	< 450mA	< 500(incl. LNB)mA	< 500(incl. LNB)mA
External PSU		Included	Included
External PSU item ID		307657 (TPS323)	307657 (TPS323)
Temperature - operating	-30 to +60°C	See kit components	-10 to +50°C
Temperature - storage	-40 to +70°C	See kit components	-30 to +60°C
Weather Proof Rating	IP 65	See kit components	IP 65
CONNECTORS			
Connector Optical		Optical - FC/PC	Optical - FC/PC
Connector SAT-IF	Coaxial N (50 Ohm)	Coaxial N (50 Ohm)	Coaxial N (50 Ohm)
RF inputs		1 x SAT-IF + 1 x TER	1 x SAT-IF + 1 x TER
Connector power supply	N, through SAT-IF out	F-female	F-female
MECHANICAL			
Remote power feeding	-	11.5 VDC/(80 mA) - (LNB feed voltage) 6.2 VDC TER feed - (through TER input)	
Packing QTY	1	1	1
Dimensions product (H x D x W)		See kit components	140 x 145 x 30 mm

*) 6 transponders of digital multiplexes

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® TAS 04

Expanding the fibre network on the opto-transmitter side



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

4K
Ultra HD

EASY
mounting

x 1

LNB
diametre
Ø40
mm

Warranty
2 Years

Common features

TAS 04 is an active coaxial splitter driving up to four TOU 232 SA optical transmitters, connected by the TUC 002 N-cable (not supplied)

- Power is supplied via the coaxial cable TUC from the IRS transmitter TOU.
- The optical splitting of an IRS 1 system can be expanded up to $4 \times (2 \times 32) = 256$ by using the TAS 04 connected to 4 x optical transmitter TOU 232 SA.
- The TAS 04 distributor is connected via TUC coaxial cables with the TWL 01 stacking LNB and the TOU IRS-transmitters.
- Active splitter with no insertion loss.



TAS 04 - Active 4-way coax splitter SAT Fullband

Art. No. 307616

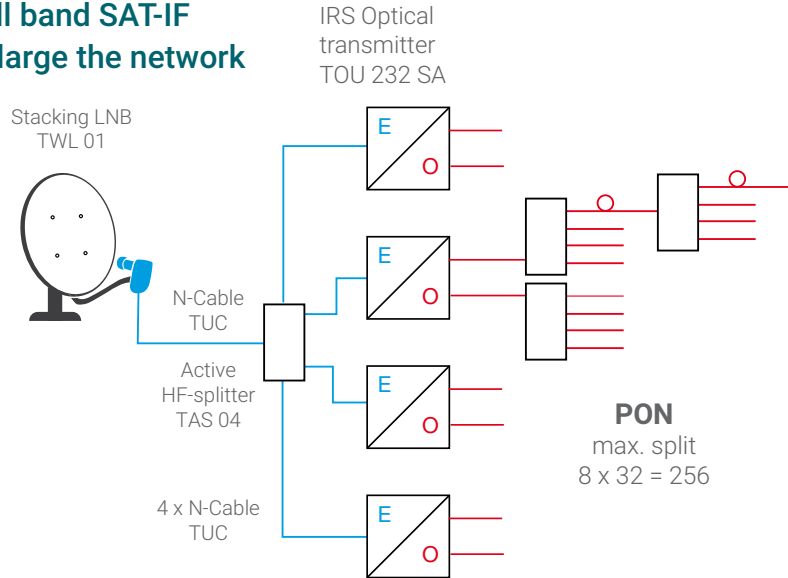
EAN Number
5702663076167

Type:	TAS 04 Active 4-way coax splitter SAT Fullband
Art. no.	307616
GAIN	
Gain	4dB
ELECTRICAL	
Number of RF outputs	4 x SAT-IF
OPERATIONAL	
Temperature - operating	-10 to +50°C
Temperature - storage	-30 to +60°C
CONNECTORS	
Connector SAT-IF	Coaxial N (50 Ohm)
RF inputs	1 x SAT-IF
Connector power supply	N, through SAT-IF out
MECHANICAL	
Packing QTY	1
Dimensions product (H x D x W)	110 x 188 x 38 mm

TRIAX® N-connector

4-way fullband coax splitter

Active splitting of the full band SAT-IF signal with TAS 04 to enlarge the network



TUC 001 - coax cable - N-connector, 0.5m

Art. No. 307601

EAN Number
5702663076013



TUC 005 - coax cable - N-connector, 5.0m

Art. No. 307604

EAN Number
5702663076044



TUC 010 - coax cable - N-connector, 10.0m

Art. No. 307605

EAN Number
5702663076051

Type:	TUC 001 N-cable 0,5m	TUC 005 N connector	TUC 010 N connector
Art. no.	307601	307604	307605
CONNECTORS			
Connector Type	N-connector	N-connector	N-connector
MECHANICAL			
Diameter cable (mm)	10mm	10mm	10mm
Length (m)	0.5m	5.0m	10.0m

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® Integrated Reception System

Expanding the fibre network by TOE 02 opto-repeater



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

4K Ultra HD	EASY mounting	x 1	Warranty 2 Years
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Common features

The TOE 02 is designed to relaunch the fibre system when the PON cannot be split any further.

The TOE 02 converts the optical signal from the Opto-LNB or IRS1 transmitter into electrical signals for feeding another optical transmitter TOU 232 SA.

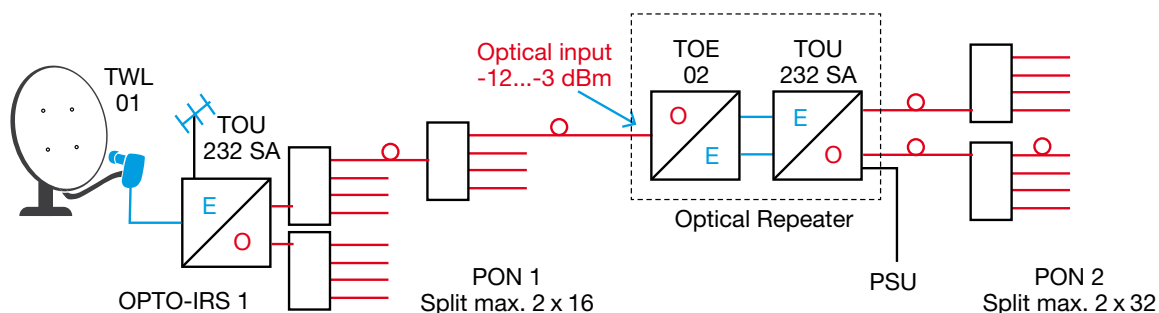
- The split of the passive optical network (PON) before the repeater should not be more than 16.
- Expands the optical split of a fibre line up to 2x32.

- Maximum of optical split in an IRS 1: 2048 = (TOU 232=2x16) x (Repeater TOE 02+TOU 232SA=2x32).
- Additional split by factor 4 by use of the TAS 04 active coaxial splitter for driving more IRS1 transmitters (TOU 232SA) can expand the optical split up to 8192.
- Power supply is carried over the coaxial patch cable TUC 02 from the TOU 232 SA.

TOE 02, Opto-to-Electrical Repeater

Art. No. 307694

EAN Number
5702663076945



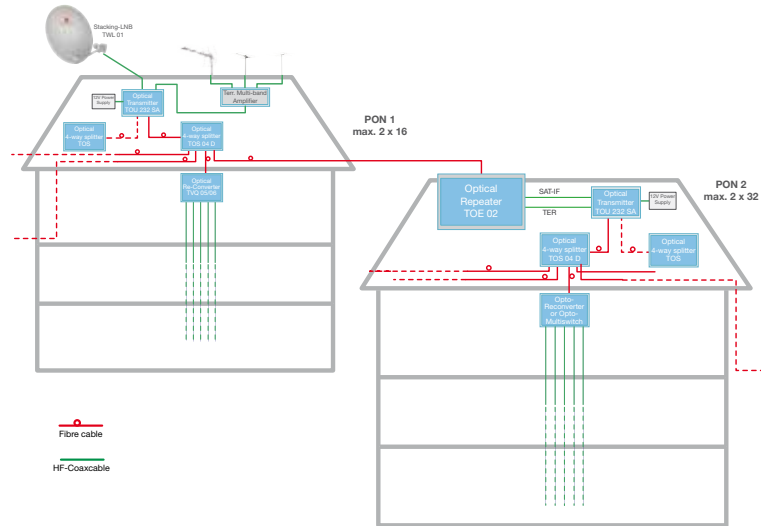
TRIAX® Integrated Reception System

installation example with opto repeater TOE 02 + TOU 232 SA

Expanding the Fibre network by Opto-Repeater for 1xSAT + DTT/DAB/FM

Installation tips

- We recommend using a selective multi-band amplifier like the GNS or TMB to manage the terrestrial signals.
- The network can be extended for a second SAT position by installation of an Opto-LNB with an additional fibre distribution network in parallel.



Type:	TOE 02, Opto-to-Electrical Repeater
Art. no.	307694
OPTICAL CHARACTERISTICS	
Optical input power	-12...-3dBm
Wavelength	1310 / 1550 nm
CHARACTERISTICS	
Output level SAT	80dBµV
Output level DTT (DAB level -14 dB respect to DTT)	87dBµV
SAT-IF range, full stacked on coax output	0.95...5.45GHz
Flatness across band	4 dB
FREQUENCY	
RF frequency range, horizontal polarities	3.4...5.45GHz
RF frequency range, vertical polarities	0.95...3.0GHz
TER frequency range DTT	470...854MHz
TER frequency range DAB	174...240MHz
TER frequency range FM	87...108MHz
RETURN LOSS	
Return Loss	>9.0dB
ELECTRICAL	
Impedance	75 (TER) / 50(SAT)Ω
OPERATIONAL	
DC Operating voltage	10..24VDC
DC Current consumption (typ.)	65@20VDCmA
External PSU	Optional
External PSU item ID	307657 (TPS323-20Vdc/1.2A)
Temperature - operating	-30...+50°C
CONNECTORS	
Input connector	FC/PC - DC: F:female
Output connectors	SAT-IF: N:female, TER: F:female
Connector power supply	F:female
MECHANICAL	
Packing QTY	1
Dimensions product (H x D x W)	160x167x30

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® Opto-Reconverters

TVC Quad/TVQ Quatro Optical reconverters for Opto-LNB and IRS 1



- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX

4K
Ultra HD

EASY
mounting

x 1

Warranty
2 Years

Common features

The TVC and TVQ Virtual Optical Receiver Nodes are optical-to-coax converters which convert frequency stacked optical signals from an Opto-LNB TOL or a TOU 232-Kit (IRS 1) unit into a legacy universal single coax signal. The converters also provide a coax DTT/DAB/FM signal diplexed onto each output (TVC), or onto a separate output (TVQ), when it is inserted into the TOU 232 SA optical transmitter.

- Compatible with optical LNB TOL 32/64 and optical transmitter TOU 232 kit.
- Two LED indicators display operation status.

- Built in AGC allowing a wide dynamic range of optical signals without impact to output level and quality.
- TVQ 06 output level adjustable by 0, -5, -10 dB.
- Power supply via RF output by SAT receiver (TVC) or by multiswitch (TVQ).
- Optional external power supply for continuous operation available: TPS 323 PSU.
- Attention: please insert an attenuator TFA (5/10/15 dB) if the optical attenuation of the passive optical network (PON) is less than 10 dB.



TVC 06 - Mini Re-converter Quad
 Art. No. 307641
 EAN Number 5702663076419



TVQ 05, Re-converter Quatro
 Art. No. 307629
 EAN Number 5702663076297



TVQ 06 - Mini Re-converter Quatro
 Art. No. 307640
 EAN Number 5702663076402

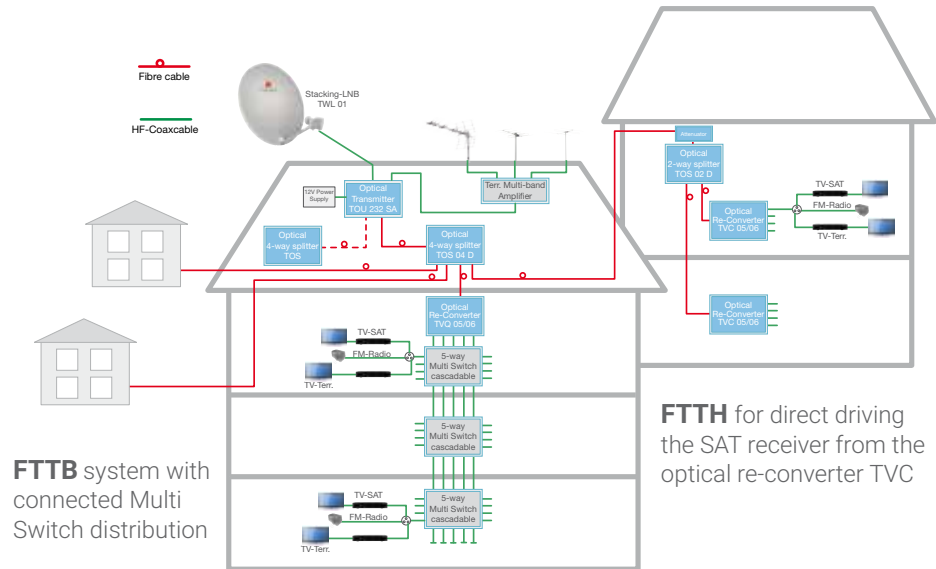


TRIAX[®] Opto-Reconverters

TVC Quad/TVQ Quatro

Installation tips

- Terrestrial reception should be implemented by a multi-band amplifier from the GNS or TMB series.
- The network can be extended for a second SAT position by installation of an Opto-LNB with an additional fibre distribution network in parallel.



Type:	TVC 06 - Mini Re-converter Quad	TVQ 06 - Mini Re-converter Quatro	TVQ 05, Re-converter Quatro
Art. no.	307641	307640	307629
OPTICAL CHARACTERISTICS			
Wavelength optical	1310/1550nm	1310/1550nm	1310/1550nm
Optical budget for PON (max.)	TOL 32, TOU 232: 19dBm TOL 64: 22dBm	TOL 32, TOU 232: 19 dBm TOL 64: 22dBm	TOL 32, TOU 232: 19 dBm TOL 64: 22dBm
Optical splitting in PON (max.)	TOL 32, TOU 232: 32 TOL 64: 64	TOL 32, TOU 232: 32 TOL 64: 64	TOL 32, TOU 232: 32 TOL 64: 64
Optical input power	TOL32,TOU232: -12...0dBm TOL 64: -13.5...0dBm	TOL32,TOU232: -12...0dBm TOL 64: -13.5...0dBm	TOL32, TOU232: -12...0dBm TOL64: -13.5...0dBm
CHARACTERISTICS			
Output level SAT	75dB μ V	79, switchable to 74 or 69dB μ V	70dB μ V
Output level TER	65dB μ V	75dB μ V	68dB μ V
FREQUENCY			
RF freq. range, horizontal polarities	3.4...5.45GHz	3.4...5.45GHz	3.4...5.45GHz
RF freq. range, vertical polarities	0.95...3.0GHz	0.95...3.0GHz	0.95...3.0GHz
TER frequency range DTT	470...854MHz	470...854MHz	470...854MHz
TER frequency range DAB	174...241MHz	174...240MHz	174...240MHz
TER frequency range FM	88...108MHz	87...108MHz	87...108MHz
RETURN LOSS			
Return Loss	10dB	10dB	10dB
ELECTRICAL			
Impedance	75 Ω	75 Ω	75 Ω
OPERATIONAL			
DC Operating voltage	10...20VDC	10...20VDC	10...20VDC
DC Current consumption (typ.)	125 (225mA@10V)mA	<400mA	<220@10VDCmA
External PSU	Optional	Optional	Optional
External PSU item ID	307657 (TPS323)	307657 (TPS323)	307657 (TPS323)
Temperature - operating	-10...+60°C	-15...+60°C	-15...+60°C
CONNECTORS			
Input connector	FC/PC	FC/PC	
Output connectors	4xF (4 x SAT+TER)	5xF (4 x SAT/1 x TER)	5xF (4 x SAT/1 x TER)
MECHANICAL			
Packing QTY	1	1	1
Dimensions product (H x D x W)	128x94x27	97x61x26	110x136x50

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX

TRIAX® Opto-Multiswitch

TOM combines the optical reconverter with an integrated multiswitch.



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features

The Opto Multiswitch features a built-in optical-to-coaxial reconverter. All SAT-IF bands along with Terrestrial signals are available on every output.

The Opto Switch Master is the standalone base unit for the reception of one SAT position and terrestrial broadcast signals. Two versions are available with 8 or 16 outputs.

Reception can be extended to 2, 3 or 4 satellites by plugging additional Opto Switch Slave units into the Opto Switch Master, with additional parallel fibre infrastructure required.

- Compatible with the Optical LNB TOL 32 / TOL 64 or Optical IRS 1 which includes TER (DTT, DAB, FM)
- Very compact form factor
- Ideal for SAT FTTH/FTTB networks: easy and space-saving installation with no coaxial patch cables between reconverter and multi-switch
- Easy upgrade for reception of more than one satellite position.
- Desk top PSU for Master



TOM 08 M, Opto Switch Master 8 way

Art. No. 307697

EAN Number
5702663076976



TOM 16 M, Opto Switch Master 16 way

Art. No. 307696

EAN Number
5702663076969



TOM 08 S, Opto Switch Slave 8 way

Art. No. 307699

EAN Number
5702663076990

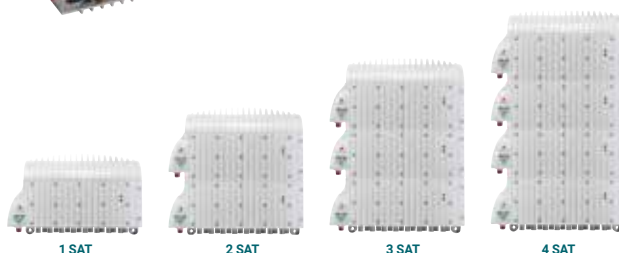


TOM 16 S, Opto Switch Slave 16 way

Art. No. 307698

EAN Number
5702663076983

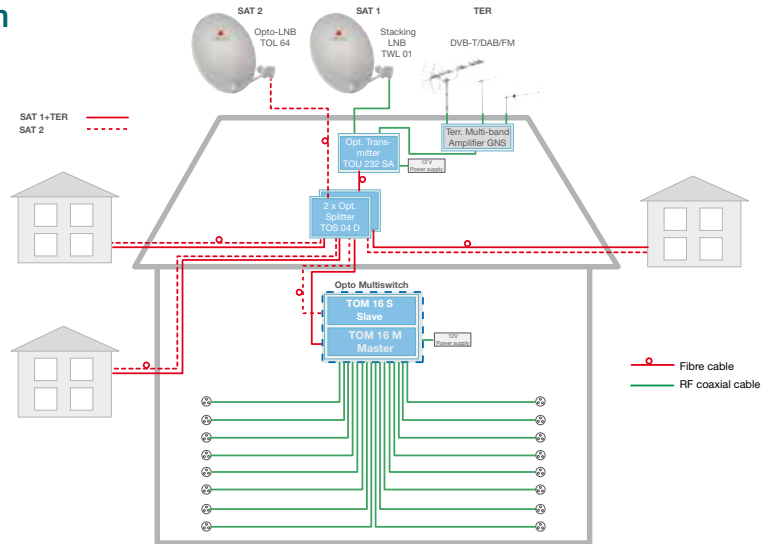
Switch Slaves are plugged on master



TRIAx® Opto-Multiswitch

SwitchMaster and SwitchSlave

System application Opto-Multiswitch for optical distribution of 2xSAT + DTT/DVB/FM



Type:	TOM 08 M, Opto SwitchMaster 8 way	TOM 08 S, Opto SwitchSlave 8 way	TOM 16 M, Opto SwitchMaster 16 way	TOM 16 S, Opto SwitchSlave 16 way
Art. no.	307697	307699	307696	307698
OPTICAL CHARACTERISTICS				
Wavelength	1100...1650nm	1100...1650nm	1100...1650nm	1100...1650nm
Optical input power	-12...-3 (@TOL32, TOU232)	-12...-3 (@TOL32, TOU232)	-12...-3 (@TOL32, TOU232)	-12...-3 (@TOL32, TOU232)
	-14...-3(@TOL64)dBm	-14...-3(@TOL64)dBm	-14...-3(@TOL64)dBm	-14...-3(@TOL64)dBm
CHARACTERISTICS				
Output level SAT	75dBµV	dBµV	75dBµV	dBµV
Output level TER	69dBµV	dBµV	69dBµV	dBµV
FREQUENCY				
RF frequency range, horizontal polarities	3.4...5.45GHz	3.4...5.45GHz	3.4...5.45GHz	3.4...5.45GHz
RF frequency range, vertical polarities	0.95...3.0GHz	0.95...3.0GHz	0.95...3.0GHz	0.95...3.0GHz
TER frequency range DTT	470...854MHz	MHz	470...854MHz	MHz
TER frequency range DAB	174...241MHz	MHz	174...241MHz	MHz
TER frequency range FM	88...108MHz	MHz	88...108MHz	MHz
RETURN LOSS				
Return Loss	>10dB	>10dB	>10dB	>10dB
ELECTRICAL				
Impedance	75Ω	75Ω	75Ω	75Ω
OPERATIONAL				
AC Supply voltage	100...240VAC		100...240VAC	
DC Operating voltage	12VDC	From Master	12VDC	From Master
DC Current consumption (typ.)	1200mA		1200mA	
External PSU	Included		Included	
Temperature - operating	-20...+50°C	-20...+50°C	-20...+50°C	-20...+50°C
CONNECTORS				
Connector IN	Optical - FC/PC	Optical - FC/PC	Optical - FC/PC	Optical - FC/PC
Connectors OUT	8 x F-f		16 x F-f	
MECHANICAL				
Dimensions product (H x D x W)	227x138x67.5mm	227x95x67.5mm	227x138x67.5mm	227x95x67.5mm

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX

TRIAX[®] Optical Couplers

passive balanced couplers for optical network



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features

TOS Optical passive balanced couplers

- For single mode fibre systems
- Excellent mechanical stability
- Low insertion loss

- Coupler Technology
 - FBT (Fused Biconical Tapered)
 - PLC (Planar Lightwave Circuit)



TOS 02D - 2-way FC/PC

Art. No. 307636
EAN Number
5702663076365



TOS 08F, 8-way FC/PC

Art. No. 307737
EAN Number
5702663077379



TOS 03D, 3-way FC/PC

Art. No. 307637
EAN Number
5702663076372



TOS 16F, 16-way FC/PC

Art. No. 307734
EAN Number
5702663077348



TOS 04F, 4-way FC/PC

Art. No. 307736
EAN Number
5702663077362



TOS 32F, 32-way FC/PC

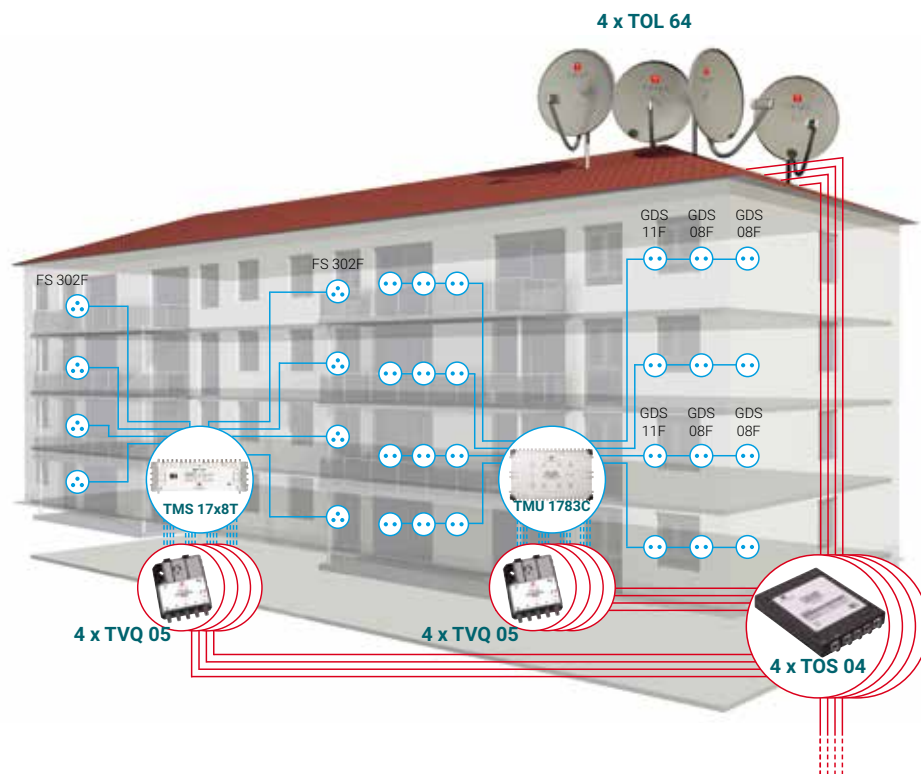
Art. No. 307735
EAN Number
5702663077355

TRIAX® Optical Couplers

passive balanced couplers with FC/PC connectors

Installation example

- Full SAT reception of 4 SAT positions (16 SAT-bands) for every resident from one central satellite dish station
- Each SAT position needs one Opto-LNB connected with a separate passive optical network (PON)
- Scalable from small to very large SMATV networks
- Cost efficient installation and operation
- FTTB combined with
 - Multi-Switches TMS 17xxC or TMS 17xxT
 - Multi-SCR Switches TMM 17x3C
- Terrestrial reception can be implemented by replacing the Opto-LNB with a TOU 232 kit (IRS1)



Type:	TOS 02D	TOS 03D	TOS 04F	TOS 08F	TOS 16F	TOS 32F
Art. no.	2-way couplers 307636	3-way couplers 307637	4-way couplers 307736	8-way couplers 307737	16-way couplers 307734	32-way couplers 307735
CHARACTERISTICS						
Coupling Ratio	50/50%	33.3/33.3/33.3%	4x25%	8x12.5%	16x6.25%	32x3.125%
Technology	OPTO balanced FBT	OPTO balanced FBT	OPTO balanced PLC	OPTO balanced PLC	OPTO balanced PLC	OPTO balanced PLC
Wavelength	1310/1550nm	1310/1550nm	1260...1650nm	1260...1650nm	1260...1650nm	1260...1650nm
Wavelength bandwidth	± 40MHz	± 40MHz	MHz	MHz	MHz	MHz
LOSS						
Through loss	3.5dB	5.6dB	7.2dB	10.2dB	13.6dB	16.7dB
CONNECTORS						
Connector	Optical - FC/PC	Optical - FC/PC	Optical - FC/PC	Optical - FC/PC	Optical - FC/PC	Optical - FC/PC
Number of inputs	1	1	1	1	1	1
Number of outputs	2	3	4	8	16	32
MECHANICAL						
Dimensions product (H x D x W)	150x20x- 114mm	150x20x- 114mm	150x20x- 114mm	150x20x- 114mm	155x50x- 175mm	155x50x- 175mm
Packing QTY	1	1	1	1	1	1

TERRESTRIAL
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SATELLITE
& FIBRE
RECEPTION

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TRIAX[®] Optical Couplers

passive balanced couplers with SC/APC connectors



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Common features

TOS Optical passive balanced couplers

- For single mode fibre systems
- Excellent mechanical stability
- Low insertion loss

- Coupler Technology
 - FBT (Fused Biconical Tapered)
 - PLC (Planar Lightwave Circuit)



TOS 02S, 2-way SC/APC

Art. No. 307744

EAN Number
5702663077447



TOS 16S, 16-way SC/APC

Art. No. 307747

EAN Number
5702663077478



TOS 04S, 4-way SC/APC

Art. No. 307738

EAN Number
5702663077386



TOS 32S, 32-way SC/APC

Art. No. 307748

EAN Number
5702663077485



TOS 08S, 8-way SC/APC

Art. No. 307739

EAN Number
5702663077393

TRIAx® Optical Couplers

passive balanced couplers with SC/APC connectors

Type:	TOS 02S, 2-way SC/APC	TOS 04S, 4-way SC/APC	TOS 08S, 8-way SC/APC	TOS 16S, 16-way SC/APC	TOS 32S, 32-way SC/APC
Art. no.	307744	307738	307739	307747	307748
CHARACTERISTICS					
Coupling Ratio	50/50%	4x25%	8x12.5%	16x6.25%	32x3.125%
Technology	OPTO balanced FBT	OPTO balanced PLC	OPTO balanced PLC	OPTO balanced PLC	OPTO balanced PLC
Wavelength	1310/1550nm	1260...1650nm	1260...1650nm	1260...1650nm	1260...1650nm
Wavelength bandwidth	± 40MHz				
LOSS					
Insertion loss (typ.)	3.6dB	7.2dB	10.2dB	13.6dB	16.7dB
CONNECTORS					
Connector	Optical - SC/APC				
Number of inputs	1	1	1	1	1
Number of outputs	2	4	8	16	32
MECHANICAL					
Dimensions product (HxDxW)	100x20x100mm	100x20x100mm	100x20x100mm	155x50x175mm	155x50x175mm
Packing QTY	1	1	1	1	1



TOS 02D - 1090 - FC/PC

Art. No. 307730

EAN Number
5702663077300



TOS 02D - 3070 - FC/PC

Art. No. 307732

EAN Number
5702663077324



TOS 02D - 2080 - FC/PC

Art. No. 307731

EAN Number
5702663077317



TOS 02D - 4060 - FC/PC

Art. No. 307733

EAN Number
5702663077331

Type:	TOS 02D 1090 - FC/PC	TOS 02D - 2080 - FC/PC	TOS 02D - 3070 - FC/PC	TOS 02D - 4060 - FC/PC
Art. no.	307730	307731	307732	307733
CHARACTERISTICS				
Coupling Ratio	10/90%	20/80%	30/70%	40/60%
Technology	OPTO unbalanced FBT			
Wavelength	1310/1550nm	1310/1550nm	1310/1550nm	1310/1550nm
Wavelength bandwidth	± 40MHz			
LOSS				
Insertion loss (typ.)	10.9/0.9dB	7.6/1.5dB	5.8/2.1dB	4.4/2.6dB
CONNECTORS				
Connector	FC/PC			
Number of inputs	1	1	1	1
Number of outputs	2	2	2	2
MECHANICAL				
Dimensions product (H x D x W)	150x20x114mm			
Packing QTY	1	1	1	1

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TRIAX® Fibre Optic Accessories

TFC pre-assembled terminated fibre cables



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Common features

Pre-assembled with optical connectors on both sides for easy and reliable installation

- Low attenuation of 0.3 dB per km
- Single-mode fibre G 657A, 9/125 µm

TFC version, suitable for indoor installation

- Crush protection – flexible steel-reinforced intermediate coat protects against pressure loads
- 4 aramid strands for strain relief when laying, maximum tension on the cable: permanently 80N, briefly 100N.



**TFC 01 - Optical patch cable
- FC/PC**

Art. No. 307661

EAN Number
5702663076617



**TFC 10 - Optical patch cable
- FC/PC**

Art. No. 307664

EAN Number
5702663076648



**TFC 03 - Optical patch cable
- FC/PC**

Art. No. 307662

EAN Number
5702663076624



**TFC 15 - Optical patch cable
- FC/PC**

Art. No. 307665

EAN Number
5702663076655



**TFC 05 - Optical patch cable
- FC/PC**

Art. No. 307663

EAN Number
5702663076631



**TFC 20 - Optical patch cable
- FC/PC**

Art. No. 307666

EAN Number
5702663076662

TRIAX® Optical Cables

optical patch cables



TFC 30 - Optical patch cable - FC/PC

Art. No. 307667
EAN Number 5702663076679



TFC 40 - Optical patch cable - FC/PC

Art. No. 307668
EAN Number 5702663076686



TFC 50 - Optical patch cable - FC/PC

Art. No. 307669
EAN Number 5702663076693



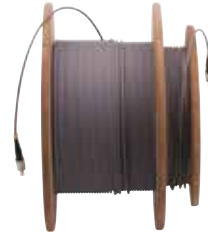
TFC 75 - Optical patch cable - FC/PC

Art. No. 307670
EAN Number 5702663076709



TFC 100 - Optical patch cable - FC/PC

Art. No. 307671
EAN Number 5702663076716



TFC 150 - Optical patch cable - FC/PC

Art. No. 307660
EAN Number 5702663076600



TFC 200 - Optical patch cable - FC/PC

Art. No. 307672
EAN Number 5702663076723



TFC 500 - Optical patch cable - FC/PC

Art. No. 307675
EAN Number 5702663076754

Type:	TFC 01 FC/PC	TFC 03 FC/PC	TFC 05 FC/PC	TFC 10 FC/PC	TFC 15 FC/PC	TFC 20 FC/PC	TFC 30 FC/PC
Art. no.	307661	307662	307663	307664	307665	307666	307667
OPTICAL CHARACTERISTICS							
Optical Attenuation 1310/1550 nm	0.35/0.25 dB/km	0.35/0.25 dB/km	0.35/0.25 dB/km	0.35/0.25 dB/km	0.35/0.25 dB/km	0.35/0.25 dB/km	0.35/0.25 dB/km
MECHANICAL							
Cable length	1m	3m	5m	10m	15m	20m	30m
Colour	Grey	Grey	Grey	Grey	Grey	Grey	Grey

Type:	TFC 40 FC/PC	TFC 50 FC/PC	TFC 75 FC/PC	TFC 100 FC/PC	TFC 150 FC/PC	TFC 200 FC/PC	TFC 500 FC/PC
Art. no.	307668	307669	307670	307671	307660	307672	307675
OPTICAL CHARACTERISTICS							
Optical Attenuation 1310/1550 nm	0.35/0.25 dB/km	0.35/0.25 dB/km	0.35/0.25 dB/km	0.35/0.25 dB/km	0.35/0.25 dB/km	0.35/0.25 dB/km	0.35/0.25 dB/km
MECHANICAL							
Cable length	40m	50m	75m	100m	150m	200m	500m
Colour	Grey	Grey	Grey	Grey	Grey	Grey	Grey

- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
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TRIAX[®] Optical Cables

fibre burial cable and patch cable for optical networks



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Common features

Pre-assembled with optical connectors on both sides for easy and reliable installation

- Low attenuation of 0.3 dB per km
- Single-mode fibre G 657A, 9/125 µm

TDB version for burial installation.

Extremely resistant PE sheath, UV-resistant

- Aramid reinforced inserts allow high max. tensile forces: 1500N briefly, permanently 600N
- Gel insert to protect from moisture
- Without steel reinforcement



TDB 050 Fibre burial cable - twin core

Art. No. 307760

EAN Number
5702663077607



TDB 200 Fibre burial cable - twin core

Art. No. 307762

EAN Number
5702663077621



TDB 100 Fibre burial cable - twin core

Art. No. 307761

EAN Number
5702663077614

Type:	TDB 050 Fibre burial cable - twin core	TDB 100 Fibre burial cable - twin core	TDB 200 Fibre burial cable - twin core
Art. no.	307760	307761	307762
LOSS			
Optical Attenuation 1310/1550 nm	0.35/0.25 dB/km	0.35/0.25 dB/km	0.35/0.25 dB/km
CONNECTORS			
Connector Optical	FC/PC	FC/PC	FC/PC
MECHANICAL			
Jacket	Extremely resistant PE sheath, UV-resistant		
Diameter (mm)	5.9mm	5.9mm	5.9mm
Length (m)	50m	100m	200m

TRIAX® Optical Cables

adapter cables and pigtails



**Optical patch cable
SC/APC - SC/PC**

Art. No. 307577

EAN Number
5702663075771



**Optical patch cable
FC/PC - SC/PC**

Art. No. 307578

EAN Number
5702663075788



**Optical patch cable
SC/APC - FC/PC**

Art. No. 307579

EAN Number
5702663075795



**Optical patch cable,
Steel reinforced - Ø 3 mm
- SC/APC - SC/APC**

Art. No. 307580

EAN Number
5702663075801



**Optical Pigtail - Ø 3mm
FC/PC**

Art. No. 307581

EAN Number
5702663075818



**Optical Pigtail - Ø 3mm
SC/APC**

Art. No. 307584

EAN Number
5702663075849



**Optical patch cable - Ø 3mm
- FC/PC - SC/APC**

Art. No. 307582

EAN Number
5702663075825

Type:	Optical patch cable SC/APC - SC/PC	Optical patch cable FC/PC - SC/PC	Optical patch cable SC/APC - FC/PC	Optical patch cable SC/APC-SC/APC	Optical Pigtail cable FC/PC	Optical patch cable FC/PC-SC/APC
Art. no.	307577	307578	307579	307580	307581	307582
CONNECTORS						
Connector Optical in						
Connector Optical out						
Connector Type	SC/APC - SC/PC	FC/PC - SC/PC	SC/APC - SC/PC	SC/APC - SC/PC	FC/PC	FC/PC - SC/APC
MECHANICAL						
Colour	Yellow	Yellow	Yellow	Grey	Grey	Grey
Diameter cable (mm)	2.5 mm	2.5 mm	2.5 mm	3mm	3mm	3mm
Length (m)	1m	1m	1m	2m	1m	2m

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TRIAX[®] Opto-Accessories

fibre attenuators, terminators, adaptors & tools



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Common features

Accessories for professional installation and service of optical products. To make your own cable configuration, we supply a professional range of connectors and tools:

- Pigtails for fuse splicing to single mode fibre cables
- Adapters to patch FC/PC or SC/PC connectors
- Optical attenuators for reducing the input level to the optical receivers

Attenuators



TFA 03 SC/APC, opt. att 3dB

Art. No. 307001

EAN Number
5702663070011



TFA 05 SC/APC, opt.att 5dB

Art. No. 307002

EAN Number
5702663070028



TFA 10 SC/APC, opt.att 10dB

Art. No. 307003

EAN Number
5702663070035



TFA 05 - FC/PC Optical attenuator - 5dB

Art. No. 307688

EAN Number
5702663076884



TFA10 - FC/PC Optical attenuator - 10dB

Art. No. 307690

EAN Number
5702663076907



TFA 15 - FC/PC Optical attenuator - 15dB

Art. No. 307692

EAN Number
5702663076921

TRIAx[®] Opto-Accessories

fibre attenuators, terminators, adaptors & tools

Terminator & adaptor



TOT 02 - FC/PC
Optical Terminator

Art. No. 307644

EAN Number
5702663076440



TFB 002 - FC/PC-SC/PC
Barrel adaptor

Art. No. 307686

EAN Number
5702663076860



TFB 001 - FC/PC-FC/PC
Barrel adaptor

Art. No. 307684

EAN Number
5702663076846

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TRIAX® State of the art LNB units

the best choice for satellite TV reception



- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
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HD
TV

EASY
mounting

x 1

LNB
diametre
Ø40
mm

Warranty

2 Years

Ral 7035
Light Grey

Ral 7016
Anthracite

Keep TV screen images sharp – use Triax Universal LNBs

Our complete range of LNB units use the latest cutting-edge RF technology to meet the most critical demands in today's market. You are guaranteed extremely low noise in both high and low band – and excellent cross polar isolation.

Our comprehensive range includes:

- Universal Single LNB
- Universal Twin LNB
- Universal Quad LNB
- Universal Quattro LNB
- Universal Octo LNB
- Triax fibre optical LNB
- Triax SCR LNB

- Available as single, dual and quad for 1, 2, 4 or 8 set top boxes
- Available in Quattro version for multi switch systems
- Full ku-band coverage for both analogue and digital reception
- Excellent noise figures and low phase noise
- High gain and excellent cross-pole isolation (typically >25 dB)
- High output and low power consumption
- Waterproof and qualified for harsh environments
- Flexible packaging : Single packed, bulk packed or packed together with dishes

Universal Single LNB

For the typical private home installation with 1 set-top box



Universal Twin LNB

For connection to two separate set-top boxes in individual homes, or for example in semi-detached houses.



TRIAX® LNB Units

universal single, twin, quad, quattro, octo, SCR and fibre

Universal Quad LNB

For connection to four separate boxes, for example in a multiapartment house.



Universal Octo LNB

For MATV/SMATV installations. This LNB is compatible with any kind of multi switch. For connection to eight separate set-top boxes in individual homes or for example in semi-detached houses.



Universal Quattro LNB

For MATV/SMATV installations. This LNB is compatible with any kind of multi switch.



Triax SCR LNB

From just one Triax SCR LNB you can distribute up to 4 individual signals/user bands – in a single cable – to 4 different set-top boxes.

In other words:

- less wiring,
- faster installation
- more users.



Triax dCSS LNB

From just one Triax SCR LNB you can distribute up to 24 individual signals/user bands – in a single cable – to 24 different set-top boxes.

In other words:

- less wiring,
- faster installation
- even more users.



Fiber optical reception with

TRIAX TOL32 optical LNB

A high quality, high performance universal LNB, that offers the end user the perfect set-top box signal – even if the signal distribution has to cover long distances. In addition to the excellent LNB performance, it provides a 1310 nm wideband optical output where all four satellite polarities are stacked into one frequency range (950-5450 MHz).



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TRIAX® Universal Single LNB

for the typical private home installation



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Common features

Complete range of Universal Single LNB, adopting the latest cutting-edge RF technology

- Full KU-band coverage for both digital and analogue reception.
- Excellent noise figure and low phase noise. High gain and excellent cross-pole isolation. Waterproof.
- High output and low power consumption.

- Flat gain.
- For 1 set-top box.
- Weather protection included.
- Colour options:
 - RAL 7035 Light grey or
 - RAL 7016 Anthracite grey.
- Single packed in gift box.



CS 300 S Universal Single LNB, RAL 7035

Art. No. 350041

EAN Number
5702663500419



TMB 002 Universal Single LNB, 6° Monoblock, RAL 7035

Art. No. 300439

EAN Number
5702663004399



THSI 01 Universal Single LNB, High Gain +5 dB, RAL 7035

Art. No. 304480

EAN Number
5702663044807



TSI 006 Universal Single LNB, RAL 7035

Art. No. 304432

EAN Number
5702663044326



TISI 001 Universal Single LNB, Slim Line, RAL 7035

Art. No. 304474

EAN Number
5702663044746



TSI 007 Universal Single LNB, RAL 7016

Art. No. 304434

EAN Number
5702663044340

TRIAX® Universal Single LNB

for the typical private home installation

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Type:	CS 300 S	THSI 01	TISI 001	TMB 002	TSI 006	TSI 007 U
Art. no.	RAL 7035 350041	High Gain +5 dB 304480	Slim Line 304474	6° Monoblock 300439	RAL 7035 304432	RAL 7016 304434
CHARACTERISTICS						
Phase noise @ 1 kHz	- 50dBc/Hz	- 50dBc/Hz	- 50dBc/Hz	- 60dBc/Hz	- 50dBc/Hz	
Phase noise @ 10 kHz	- 80dBc/Hz	- 75dBc/Hz	- 75dBc/Hz	- 80dBc/Hz	- 75dBc/Hz	
Phase noise @ 100 kHz	- 100dBc/Hz	- 95dBc/Hz	- 95dBc/Hz	- 100dBc/Hz	- 95dBc/Hz	
Spurious level	- 65 (max.)dBm	- 60 (max.)dBm	- 60 (max.)dBm	- 60 (max.)dBm	- 60 (max.)dBm	
Image rejection (min.)	40dB	40dB	40dB	40dB	40dB	
Feedhorn F/D @ 11.7	0.615	0.615	0.615	0.615	0.615	
Frequency stability (-40 ~ +60 °C)	± 2.5:1MHz	± 2.1:1MHz	± 2.1:1MHz	± 2.0:1MHz	± 2.1:1MHz	
Switching position		nonenone	nonenone	DiSEqC 2.0	nonenone	
Switching low band	0.0kHz	0.0kHz	0.0kHz	0.0kHz	0.0kHz	
Switching high band	22 (± 4)kHz	22 (± 4)kHz	22 (± 4)kHz	22 (± 4)kHz	22 (± 4)kHz	
FREQUENCY						
Output frequency high band	1100 - 2150GHz	1100 - 2150GHz	1100 - 2150GHz	1100 - 2150GHz	1100 - 2150GHz	
Output frequency low band	950 - 1950GHz	950 - 1950GHz	950 - 1950GHz	950 - 1950GHz	950 - 1950GHz	
LO frequency high band	10.6GHz	10.6GHz	10.6GHz	10.6GHz	10.6GHz	
LO frequency low band	9.75GHz	9.75GHz	9.75GHz	9.75GHz	9.75GHz	
Input frequency high band	11.7 - 12.75GHz	11.7 - 12.75GHz	11.7 - 12.75GHz	11.7 - 12.75GHz	11.7 - 12.75GHz	
Input frequency low band	10.7 - 11.7GHz	10.7 - 11.7GHz	10.7 - 11.7GHz	10.7 - 11.7GHz	10.7 - 11.7GHz	
GAIN						
Gain flatness (across 26 MHz segm)	± 0.5 (typ.)dB	± 1.0 (typ.)dB	± 1.0 (typ.)dB	± 1.0 (typ.)dB	± 1.0 (typ.)dB	
Gain variation (over operating band)	5 p-p (typ.)	5 p-p (typ.)	5 p-p (typ.)	5 p-p (typ.)	5 p-p (typ.)	
Conversion gain (max.)		68dB		62dB	62dB	
Conversion gain (min.)		55dB		50dB	50dB	
Conversion gain (typ.)	56dB		56dB			
Noise figure max.	0.3dB	0.3dB	0.3dB	0.3dB	0.3dB	
ISOLATION						
Cross polarization isolation	25 typ.dB	25 typ.dB	25 typ.dB	25 typ.dB	25 typ.dB	
OPERATIONAL						
AC Supply voltage	VAC	VAC	VAC	VAC	VAC	
DC Operating voltage	VDC	VDC	VDC	VDC	VDC	
DC Current consumption (typ.)	110mA	100mA	190mA	110mA	100mA	
Operating voltage vertical	10.5 ~ 14.5V/DC	15.5 ~ 21.0V/DC	15.5 ~ 21.0V/DC	10.5 ~ 14.5V/DC	15.5 ~ 21.0V/DC	
Operating voltage horizontal	15.5 ~ 21.0V/DC	10.5 ~ 14.5V/DC	10.5 ~ 14.5V/DC	15.5 ~ 21.0V/DC	10.5 ~ 14.5V/DC	
Operating temperature range	-40 ~ +60°C	-40 ~ +60°C	-40 ~ +60°C	-40 ~ +60°C	-40 ~ +60°C	
CONNECTORS						
Connector Type	F-female	F-female	F-female	F-female	F-female (IEC 61 169-24)	
MECHANICAL						
Packing QTY	50	50	50	30	50	
Max. depth incl. feedhorn	112mm	135mm	135mm	145mm	135mm	
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7016
Diameter	Ø 40mm	Ø 40mm	Ø 40mm	Ø 40mm	Ø 40mm	
Height (mm)	59mm	137mm	137mm	137mm	137mm	
Depth (mm)	112mm	97mm	97mm	97mm	97mm	
Width (mm)	59mm	59mm	59mm	140mm	40mm	
Weight (kg)	0.120	0.120	0.210	0.375	0.120	

TRIAX® Universal Twin LNB

for connection to two separate set-top boxes



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features

Complete range of TWIN LNB units, adopting the latest cutting-edge RF technology

- Full Ku-band coverage for analogue/digital reception
- Excellent noise figure and low phase noise
- High gain and excellent cross-pole isolation
- High output and low power consumption

- Gain flatness
- For 2 or 4 set-top boxes
- Supplied sliding cover
- Available in 2 colours
- Single packed in gift box



**TITW 001 Universal Twin,
Slim Line, RAL 7035**

Art. No. 304475

EAN Number
5702663044753



**TTW 006 Universal Twin,
RAL 7035**

Art. No. 304436

EAN Number
5702663044364



**CS 320 T Universal Twin,
RAL 7035**

Art. No. 350042

EAN Number
5702663500426



**TTW 007 Universal Twin,
RAL 7016**

Art. No. 304438

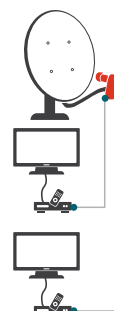
EAN Number
5702663044388



**THTW 01 High Gain TWIN
LNB**

Art. No. 304466

EAN Number
5702663044661



TRIAX® Universal Twin LNB

for connection to two separate set-top boxes

Type:	TITW 001 Universal Twin, Slim Line RAL 7035	CS 320 T Universal Twin, RAL 7035	THTW 01 High Gain TWIN LNB	TTW 006 Universal Twin, RAL 7035	TTW 007 Universal Twin, RAL 7016
Art. no.	304475	350042	304466	304436	304438
CHARACTERISTICS					
Phase noise @ 1 kHz	- 50dBc/Hz	- 60dBc/Hz	- 60dBc/Hz	- 50dBc/Hz	- 50dBc/Hz
Phase noise @ 10 kHz	- 75dBc/Hz	- 80dBc/Hz	- 75dBc/Hz	- 75dBc/Hz	- 75dBc/Hz
Phase noise @ 100 kHz	- 95dBc/Hz	- 100dBc/Hz	- 100dBc/Hz	- 95dBc/Hz	- 95dBc/Hz
Spurious level	- 60 (max.)dBm	- 60 (max.)dBm	- 30 (max.)dBm	- 60 (max.)dBm	- 60 (max.)dBm
Image rejection (min.)	40dBdB	40dBdB	35dBdB	40dBdB	40dBdB
Feedhorn F/D @ 11.7	0.615	0.615	0.6	0.615	0.615
LO temperature drifting	± 1/± 3 MHz				
Frequency stability (-40 ~ +60 °C)	± 2.1:1MHz	± 2.0:1MHz	MHz	± 2.1:1MHz	± 2.1:1MHz
Switching position	nonenone	nonenone		nonenone	nonenone
Switching low band	0.0kHz	0.0kHz	0.0kHz	0.0kHz	0.0kHz
Switching high band	22 (± 4)kHz	22 (± 4)kHz	22 (± 4)kHz	22 (± 4)kHz	22 (± 4)kHz
FREQUENCY					
Output frequency high band	1100 - 2150GHz	1100 - 2150GHz	1100 - 2150GHz	1100 - 2150GHz	1100 - 2150GHz
Output frequency low band	950 - 1950GHz	950 - 1950GHz	950 - 2150GHz	950 - 1950GHz	950 - 1950GHz
LO frequency high band	10.6GHz	10.6GHz	10.6GHz	10.6GHz	10.6GHz
LO frequency low band	9.75GHz	9.75GHz	9.75GHz	9.75GHz	9.75GHz
Input frequency high band	11.7 - 12.75GHz	11.7 - 12.75GHz	11.7 - 12.75GHz	11.7 - 12.75GHz	11.7 - 12.75GHz
Input frequency low band	10.7 - 11.7GHz	10.7 - 11.7GHz	10.7 - 11.7GHz	10.7 - 11.7GHz	10.7 - 11.7GHz
GAIN					
Gain flatness (across 26 MHz segm)	± 1.0 (typ.)dB	± 1.0 (typ.)dB	± 1.5 (typ.)dB	± 1.0 (typ.)dB	± 1.0 (typ.)dB
Gain variation (over operating band)	5 p-p (typ.)	5 p-p (typ.)		5 p-p (typ.)	5 p-p (typ.)
Conversion gain (max.)		62dB	76dB	64dB	64dB
Conversion gain (min.)		50dB	58dB	50dB	50dB
Conversion gain (typ.)	56dB	56dB	67dB	dB	dB
Noise figure max.	0.3dB	0.3dB	0.8dB	0.3dB	0.3dB
ISOLATION					
Cross polarization isolation	25 typ.dB	25 typ.dB	18/20 typ.dB	25 typ.dB	25 typ.dB
OPERATIONAL					
AC Supply voltage	VAC	VAC	VAC	VAC	VAC
DC Operating voltage	VDC	VDC	10.5 - 21VDC	VDC	VDC
DC Current consumption (typ.)	190mA	140mA	170mA	170mA	170mA
Operating voltage vertical	15.5 ~ 21.0V/DC	10.5 ~ 14.5V/DC	10.5 ~ 14.5V/DC	15.5 ~ 21.0V/DC	15.5 ~ 21.0V/DC
Operating voltage horizontal	10.5 ~ 14.5V/DC	15.5 ~ 21V/DC	15.5 ~ 21.0V/DC	10.5 ~ 14.5V/DC	10.5 ~ 14.5V/DC
Operating temperature range	-40 ~ +60°C	-40 ~ +60°C	-40 ~ +60°C	-40 ~ +60°C	-40 ~ +60°C
CONNECTORS					
Connector Type	F-female	F-female	F-female	F-female	F-female
MECHANICAL					
Packing QTY	50	50		50	50
Max. depth incl. feedhorn	135mm	145mm	mm	135mm	135mm
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7016
Diameter	Ø 40mm	Ø 40mm	Ø 40mm	Ø 40mm	Ø 40mm
Height (mm)	137mm	137mm		137mm	137mm
Depth (mm)	97mm	97mm		97mm	97mm
Width (mm)	59mm	59mm		59mm	59mm
Weight (kg)					

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® Universal Quad LNB

for connection to four separate set-top boxes



Common features

Complete range of QUAD LNB units, adopting the latest cutting-edge RF technology.

- Full Ku-band coverage for analogue/digital reception
- Excellent noise figure and low phase noise
- High gain and excellent cross-pole isolation
- High output and low power consumption

- Gain flatness
- For up to 4 set-top boxes
- Supplied sliding cover
- Available in 2 colours
- Single packed in gift box



CS 404 QS Universal Quad LNB, RAL 7035

Art. No. 350043

EAN Number
5702663500433



TQD 007 - Elliptical Quad LNB - for Mk4 elliptical satellite dish, RAL 7016

Art. No. 304444

EAN Number
5702663044449



TIQD 001 Universal Quad LNB, Slim Line, RAL 7035

Art. No. 304476

EAN Number
5702663044760



CS 504 QST Universal Quattro LNB

Art. No. 350046

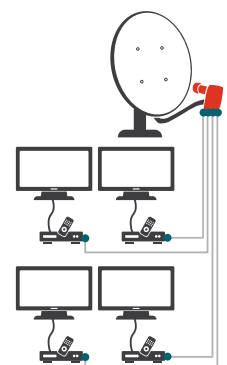
EAN Number
5702663500464



TQD 006 Universal Quad LNB, RAL 7035

Art. No. 304442

EAN Number
5702663044425



TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX

TRIAX® Universal Quad LNB

for connection to four separate set-top boxes

Type:	CS 404 QS Universal Quad LNB, RAL 7035	TIQD 001 Universal Quad LNB, Slim Line, RAL 7035	TQD 006 Universal Quad LNB, RAL 7035	TQD 007 Elliptical Quad LNB - for Mk4 elliptical satellite dish, RAL 7016	CS 504 QST
Art. no.	350043	304476	304442	304444	350046
CHARACTERISTICS					
Phase noise @ 1 kHz	- 60dBc/Hz	- 50dBc/Hz	- 50dBc/Hz	- 50dBc/Hz	
Phase noise @ r10 kHz	- 80dBc/Hz	- 75dBc/Hz	- 75dBc/Hz	- 75dBc/Hz	
Phase noise @ 100 kHz	- 100dBc/Hz	- 95dBc/Hz	- 95dBc/Hz	- 95dBc/Hz	
Spurious level	- 60 (max.)dBm	- 60 (max.)dBm	- 60 (max.)dBm	- 60 (max.)dBm	
Image rejection (min.)	40dB	40dB	40dB	40dB	
Feedhorn F/D @ 11.7	0.615	0.615	0.615	0.615	
Frequency stability (-40 ~ +60 °C)	± 2.0:1MHz	± 2.1:1MHz	± 2.1:1MHz	± 2.1:1MHz	
Switching position	nonenone	nonenone	nonenone	nonenone	
Switching low band	0.0kHz	0.0kHz	0.0kHz	0.0kHz	0kHz
Switching high band	22 (± 4)kHz	22 (± 4)kHz	22 (± 4)kHz	22 (± 4)kHz	22kHz
FREQUENCY					
Output frequency high band	1100 - 2150GHz	1100 - 2150GHz	1100 - 2150GHz	1100 - 2150GHz	1100 - 2150GHz
Output frequency low band	950 - 1950GHz	950 - 1950GHz	950 - 1950GHz	950 - 1950GHz	950 - 1950GHz
LO frequency high band	10.6GHz	10.6GHz	10,6GHz	10.6GHz	10,6GHz
LO frequency low band	9.75GHz	9.75GHz	9,75GHz	9.75GHz	9,75GHz
Input frequency high band	11.7 - 12.75GHz	11.7 - 12.75GHz	11.7 - 12.75GHz	11.7 - 12.75GHz	11,7- 12,75GHz
Input frequency low band	10.7 - 11.7GHz	10.7 - 11.7GHz	10.7 - 11.7GHz	10.7 - 11.7GHz	10,7-11,7GHz
GAIN					
Gain flatness (across 26 MHz segm)	± 1.0 (typ.)dB	± 1.0 (typ.)dB	± 1.0 (typ.)dB	± 1.0 (typ.)dB	± 1.0 (typ.)dB
Gain variation (over operating band)	5 p-p (typ.)	5 p-p (typ.)	5 p-p (typ.)	5 p-p (typ.)	5 p-p (typ.)
Conversion gain (max.)		64dB	64dB	64dB	
Conversion gain (min.)		50dB	50dB	50dB	
Conversion gain (typ.)	56dB				56dB
Noise figure max.	0.3dB	0.3dB	0.3dB	0.3dB	0.3dB
ISOLATION					
Cross polarization isolation	25 typ.dB	25 typ.dB	25 typ.dB	25 typ.dB	20 typ.dB
OPERATIONAL					
DC Current consump.(typ.)	140mA	190mA	180mA	180mA	160mA
Operating voltage vertical	10.5 ~ 14.5V/DC	10.5 ~ 14.5V/DC	10.5 ~ 14.5V/DC	10.5 ~ 14.5V/DC	10.5...21.0VDC
Operating voltage horizontal	15.5 ~ 21V/DC	15.5 ~ 21.0V/DC	15.5 ~ 21.0V/DC	15.5 ~ 21.0V/DC	
Operating temperature range	-40 ~ +60°C	-40 ~ +60°C	-40 ~ +60°C	-40 ~ +60°C	-40 ~ +60°C
CONNECTORS					
Connector Type	F-female	F-female	F-female	F-female	F-female
MECHANICAL					
Packing QTY	50	50	50	50	
Max. depth incl. feedhorn	145mm	135mm	135mm	135mm	
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7016	
Diameter	Ø 40mm	Ø 40mm	Ø 40mm	Ø 40mm	Ø40mm
Height (mm)	137mm	137mm	137mm	137mm	
Depth (mm)	97mm	97mm	97mm	97mm	
Width (mm)	59mm	59mm	59mm	59mm	
Weight (kg)					

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® Universal Quattro LNB

for MATV/SMATV installations.



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features

Complete range of QUATTRO LNB units, adopting the latest cutting-edge RF technology.

- Full Ku-band coverage for analogue/digital reception
- Excellent noise figure and low phase noise
- High gain and excellent cross-pole isolation
- High output and low power consumption
- Gain flatness
- For up to 4 set-top boxes
- Supplied sliding cover
- Available in 2 colours
- Single packed in gift box

CS 400 QT Universal Quattro LNB, RAL 7035

Art. No. 350044

EAN Number
5702663500440



TQT 006 Universal Quattro LNB, RAL 7035

Art. No. 304446

EAN Number
5702663044463



THQT 001 Universal Quattro LNB

Art. No. 304486

EAN Number
5702663044869



TQT 007 Universal Quattro LNB, RAL 7016

Art. No. 304449

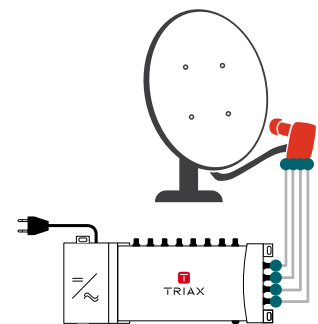
EAN Number
5702663044494



TIQT 001 Universal Quattro LNB, Slim Line, RAL 7035

Art. No. 304477

EAN Number
5702663044777



TRIAX® Universal Quattro LNB

for MATV/SMATV installations.

Type:	CS 400 QT RAL 7035	THQT 001	TIQT 001 Slim Line, RAL 7035	TQT 006 RAL 7035	TQT 007 RAL 7016
Art. no.	350044	304486	304477	304446	304449
CHARACTERISTICS					
Phase noise @ 1 kHz	- 50dBc/Hz		- 50dBc/Hz	- 50dBc/Hz	- 50dBc/Hz
Phase noise @ 10 kHz	- 75dBc/Hz		- 75dBc/Hz	- 75dBc/Hz	- 75dBc/Hz
Phase noise @ 100 kHz	- 95dBc/Hz		- 95dBc/Hz	- 95dBc/Hz	- 95dBc/Hz
Spurious level	- 60(max.)dBm		- 60(max.)dBm	- 60(max.)dBm	- 60(max.)dBm
Image rejection (min.)	40dB		40dB	40dB	40dB
Feedhorn F/D @ 11.7	0.615		0.615	0.615	0.615
LO temperature drifting					
Frequency stability (-40 ~ +60 °C)	± 2.1:1MHz		± 2.1:1MHz	± 2.1:1MHz	± 2.1:1MHz
Switching position	nonenone		nonenone	nonenone	nonenone
Switching low band	0.0kHz		0.0kHz	0.0kHz	0.0kHz
Switching high band	22 (± 4)kHz		22 (± 4)kHz	22 (± 4)kHz	22 (± 4)kHz
FREQUENCY					
Output frequency high band	1100 - 2150GHz	1100 - 2150GHz	1100 - 2150GHz	1100 - 2150GHz	1100 - 2150GHz
Output frequency low band	950 - 1950GHz	950 - 1950GHz	950 - 1950GHz	950 - 1950GHz	950 - 1950GHz
LO frequency high band	10.6GHz	10,6GHz	10.6GHz	10,6GHz	10.6GHz
LO frequency low band	9.75GHz	9,75GHz	9.75GHz	9,75GHz	9.75GHz
Input frequency high band	11.7-12.75GHz	11,7-12,75GHz	11.7-12.75GHz	11.7-2.75GHz	11.7-12.75GHz
Input frequency low band	10.7-11.7GHz	10,,7-1,7GHz	10.7-11.7GHz	10.7-11.7GHz	10.7-11.7GHz
GAIN					
Gain flatness (across 26 MHz segm)	± 1.0 (typ.)dB		± 1.0 (typ.)dB	± 1.0 (typ.)dB	± 1.0 (typ.)dB
Gain variation (over operating band)	5 p-p (typ.)		5 p-p (typ.)	5 p-p (typ.)	5 p-p (typ.)
Conversion gain (max.)		76dB	64dB	64dB	64dB
Conversion gain (min.)			50dB	50dB	50dB
Conversion gain (typ.)	56dB	58dB	dB	dB	dB
Noise figure max.	0.3dB		0.3dB	0.3dB	0.3dB
ISOLATION					
Cross pol. isolation	20 typ.dB		25 typ.dB	25 typ.dB	25 typ.dB
OPERATIONAL					
AC Supply voltage	VAC	VAC	VAC	VAC	VAC
DC Operating voltage	10.5...21.0VDC	10,5...21VDC	10.5...21.0VDC	10.5...21.0VDC	10.5...21.0VDC
DC Current Cons. (typ.)	160mA	190mA	190mA	190mA	190mA
Operating volt. vertical					
Operating volt. horizontal					
Operating temp. range	-40 ~ +60°C	-40 - 60°C	-40 ~ +60°C	-40 ~ +60°C	-40 ~ +60°C
CONNECTORS					
Connector Type	F-female	F-female	F-female	F-female	F-female
MECHANICAL					
Packing QTY	50		50	50	50
Max. depth incl. feedhorn	135mm		135mm	135mm	135mm
Colour	RAL 7035		RAL 7035	RAL 7035	RAL 7016
Diameter	Ø 40mm		Ø 40mm	Ø 40mm	Ø 40mm
Height (mm)	137mm		137mm	137mm	137mm
Depth (mm)	97mm		97mm	97mm	97mm
Width (mm)	59mm		59mm	59mm	59mm
Weight (kg)					

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® Universal Octo LNB

for MATV/SMATV installations.



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features

Complete range of OCTO LNB units, adopting the latest cutting-edge RF technology

- Full Ku-band coverage for analogue/digital reception
- Excellent noise figure and low phase noise
- High gain and excellent cross-pole isolation
- High output and low power consumption

- Gain flatness
- TQT for SMATV installation, 4 outputs: VH, VL, HH, HL
- OCTO for 8 set-top boxes
- Supplied sliding cover
- Available in 2 colours
- Single packed in gift box



CS 408 OS Universal Octo LNB, RAL 7035

Art. No. 350045

EAN Number
5702663500457



TOO 001 Universal Octo LNB, RAL 7035

Art. No. 304401

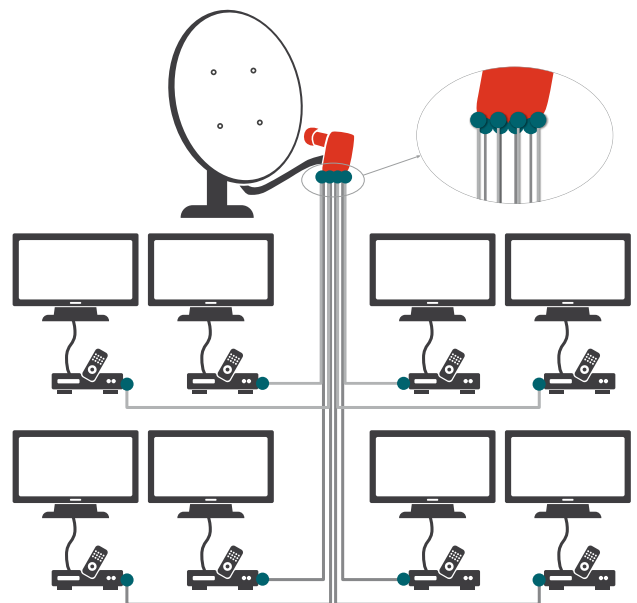
EAN Number
5702663044012



TOT 003 Universal Octo LNB, RAL 7016

Art. No. 304448

EAN Number
5702663044487



TRIAX® Universal Octo LNB

for MATV/SMATV installations.

Type:	CS 408 OS RAL 7035	TOO 001 RAL 7035	TOT 003 RAL 7016
Art. no.	350045	304401	304448
CHARACTERISTICS			
Phase noise @ 1 kHz	- 50dBc/Hz	- 50dBc/Hz	- 50dBc/Hz
Phase noise @ 10 kHz	- 75dBc/Hz	- 75dBc/Hz	- 75dBc/Hz
Phase noise @ 100 kHz	- 95dBc/Hz	- 95dBc/Hz	- 95dBc/Hz
Spurious level	- 60 (max.)dBm	- 60 (max.)dBm	- 60 (max.)dBm
Image rejection (min.)	40dB	40dB	40dB
Feedhorn F/D @ 11.7	0.615	0.615	0.615
Frequency stability (-40 ~ +60 °C)	± 2.1:1MHz	± 2.1:1MHz	± 2.1:1MHz
Switching position	nonenone	nonenone	nonenone
Switching low band	0.0kHz	0.0kHz	0.0kHz
Switching high band	22 (± 4)kHz	22 (± 4)kHz	22 (± 4)kHz
FREQUENCY			
Output frequency high band	1100 - 2150GHz	1100 - 2150GHz	1100 - 2150GHz
Output frequency low band	950 - 1950GHz	950 - 1950GHz	950 - 1950GHz
LO frequency high band	10.6GHz	10.6GHz	10.6GHz
LO frequency low band	9.75GHz	9.75GHz	9.75GHz
Input frequency high band	11.7 - 12.75GHz	11.7 - 12.75GHz	11.7 - 12.75GHz
Input frequency low band	10.7 - 11.7GHz	10.7 - 11.7GHz	10.7 - 11.7GHz
GAIN			
Gain flatness (across 26 MHz segm)	± 1.0 (typ.)dB	± 1.0 (typ.)dB	± 1.0 (typ.)dB
Gain variation (over operating band)	5 p-p (typ.)	5 p-p (typ.)	5 p-p (typ.)
Conversion gain (max.)		50dB	50dB
Conversion gain (min. at room temperature)		62dB	62dB
Conversion gain (typ.)	56dB		
Noise figure max.	0.3dB	0.6dB	0.3dB
ISOLATION			
Cross polarization isolation	25 typ.dB	25 typ.dB	25 typ.dB
OPERATIONAL			
DC Current consump. (typ.)	140mA	180mA	180mA
Operating voltage vertical	15.5 ~ 21.0V/DC	15.5 ~ 21.0V/DC	15.5 ~ 21.0V/DC
Operating voltage horizontal	10.5 ~ 14.5V/DC	10.5 ~ 14.5V/DC	10.5 ~ 14.5V/DC
Operating temperature range	-40 ~ +60°C	-40 ~ +60°C	-40 ~ +60°C
Temperature range	°C	°C	°C
CONNECTORS			
Connector Type	F-female	F-female	F-female
MECHANICAL			
Packing QTY	30	1	50
Max. depth incl. feedhorn	135mm	135mm	135mm
Colour	RAL 7035	RAL 7035	RAL 7016
Diameter	Ø 40mm	Ø 40mm	Ø 40mm
Height (mm)	137mm	137mm	137mm
Depth (mm)	97mm	97mm	97mm
Width (mm)	59mm	59mm	59mm
Weight (kg)	0.134	0.282	0.155

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® Single Cable Router (SCR) LNB

the standard for single cable distribution



- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX

HD
TV

EASY
mounting

x 1

LNB
diametre
Ø40
mm

Warranty
2 Years

Ral 7035
Light Grey

Ral 7016
Anthracite

Common features

Using the latest satellite reception and distribution technology, our SCR LNB is the new standard for single cable distribution. The industry standard CENELEC EN50494 facilitates the delivery of broadcast programming over a single

coaxial cable to multiple users, thus helping to eliminate the numerous coaxial cables previously required to connect satellite PVRs and other high-end set top boxes to the satellite dish.



TSC 001 Single Cable Router LNB - 1 SCR output, 1 universal output

Art. No. 304460
EAN Number 5702663044609



TSC 002 Single Cable Router LNB - 1 SCR output, 2 universal outputs

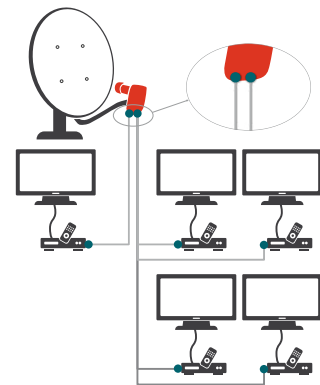
Art. No. 304461
EAN Number 5702663044616



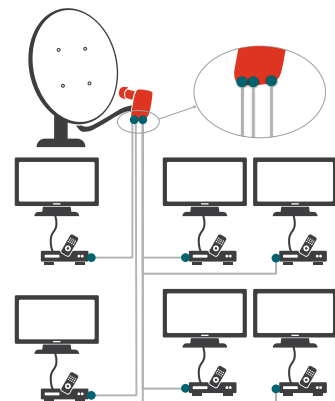
TSI - dcSS Single Cable Router - 1 SCR output, RAL 7035

Art. No. 304463
EAN Number 5702663044630

**1 x SCR
1 x Legacy**



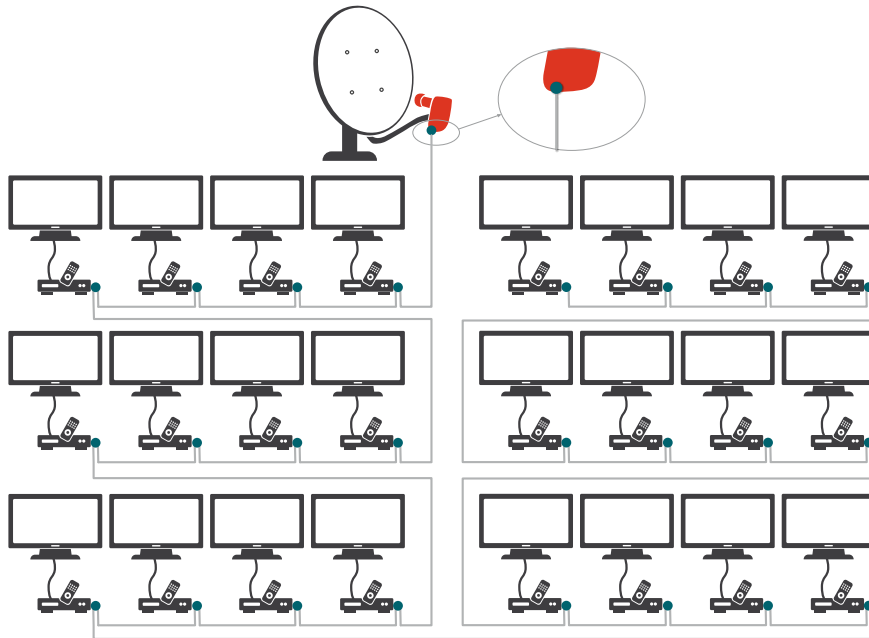
**1 x SCR
2 x Legacy**



TRIAX® Single Cable Router LNB

the standard for single cable distribution

dCSS LNB



Type:	TSC 001 Single Cable Router LNB - 1 SCR output	TSC 002 Single Cable Router LNB - 1 SCR output, 2 universal outputs	TSI - dCSS Single Cable Router 1 SCR output
Art. no.	304460	304461	304463
CHARACTERISTICS			
Phase noise @ 10 kHz	- 80dBc/Hz	- 80dBc/Hz	- 80dBc/Hz
Image rejection (min.)	40dB	40dB	40dB
Output VSWR	2,5 : 1	2,5 : 1	2,3 : 1
FREQUENCY			
Output frequency band	950 ~ 2000GHz	950 ~ 2150GHz	950 ~ 2150GHz
LO frequency high band	10,6GHz	10,6GHz	
LO frequency low band	9,75GHz	9,75GHz	10,4GHz
Input frequency high band	11,7-12,75GHz	11,7-12,75GHz	
Input frequency low band	10,7-11,7GHz	10,7-11,7GHz	10,7-12,75GHz
GAIN			
Gain variation (over operating band)	+/- 0,75	+/- 0,75	
Conversion gain (max.)	60dB	60dB	63-73 (5 or more users)dB
Conversion gain (min.)	50dB	50dB	53-63 (4 or less users)dB
Noise figure max.	0.8dB	dB	0.8dB
ELECTRICAL			
Impedance	75Ω	75Ω	75Ω
OPERATIONAL			
AC Supply voltage	VAC	VAC	10.5 - 21.0VAC
DC Current Cons. (typ.)	mA	mA	350mA
Operating temperature range	°C	°C	-40...-60°C
CONNECTORS			
Connector Type	F-female	F-female	F-female
MECHANICAL			
Packing QTY	1	1	1
Colour	RAL 7035	RAL 7035	
Diameter	Ø 40mm	Ø 40mm	
Weight (kg)	0.134	0.282	

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

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TRIAX® LNB brackets

single and multi satellite reception



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RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

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APPENDIX



Aluminum LNB holder for TD

Art. No. 300721

EAN Number 5702663007215

CHARACTERISTICS	
Type	Alu bracket TD
MECHANICAL	
Colour	Alu
LNB size	Ø 40mm
Remarks	Fits all TD-dishes



TD - 3° DuoBlock

Art. No. 300716

EAN Number 5702663007161

CHARACTERISTICS	
Type	TD 3° Duo block
MECHANICAL	
Colour	Black
LNB size	Ø 40mm
Remarks	Ø 25 mm adaptor - optional extra



Plastic Parts for TD - RAL 7016

Art. No. 129421

EAN Number 5702661294211

CHARACTERISTICS	
Type	TD plastic spareparts
MECHANICAL	
Colour	Ral 7016
LNB size	Ø 40mm
Remarks	For TD64, TD78, TD88, TD110



TD - 6° DuoBlock

Art. No. 300715

EAN Number 5702663007154

CHARACTERISTICS	
Type	TD 6° Duo block
MECHANICAL	
Colour	Black
LNB size	Ø 40mm
Remarks	Ø 25 mm adaptor - optional extra



Plastic Parts for TD - RAL 7030

Art. No. 129420

EAN Number 5702661294204

CHARACTERISTICS	
Type	Plastic spareparts
MECHANICAL	
Colour	Ral 7030
LNB size	Ø 40mm
Remarks	For TD64, TD78, TD88, TD110



TD - 6° DuoBlock

Art. No. 300717

EAN Number 5702663007178

CHARACTERISTICS	
Type	TD 6° Duo block
MECHANICAL	
Colour	Grey
LNB size	Ø 40mm
Remarks	Ø 25 mm adaptor - optional extra



TRIAX® LNB brackets

single and multi satellite reception

Elegant solutions in black or grey – for Ø40 mm LNBs. Perfect for reception from two satellite positions, e.g. Eutelsat (Hotbird) and ASTRA, for up to four satellite positions.

Holds up to four Ø40 mm LNBs – with minimum 4 degrees between the satellite positions.

Also available with complete packaging: Bracket, LNB units and DiSEqC switch.



TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

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TD - 3° - 10° FlexiBlock

Art. No. 300719

EAN Number 5702663007192

CHARACTERISTICS

Type	TD - 3° - 10° FlexiBlock
------	--------------------------

MECHANICAL

Colour	Black
LNB size	Ø 40mm



MFD 850 DAP

Art. No. 200851

EAN Number 5702662008510

CHARACTERISTICS

Type	6° Multifeed
------	--------------

MECHANICAL

Colour	Black/White
LNB size	Ø 40mm



TD multiblock with 2xLNB and switch

Art. No. 300730

EAN Number 5702663007307

CHARACTERISTICS

Type	TD - 2 LNB Multi block set
------	----------------------------

MECHANICAL

Colour	Black/Alu
LNB size	Ø 40mm
Remarks	incl. 2xLNB and switch



TD multiblock with 4xLNB and switch

Art. No. 300725

EAN Number 5702663007253

CHARACTERISTICS

Type	TD - 4 LNB Multi block set
------	----------------------------

MECHANICAL

Colour	Black/Alu
LNB size	Ø 40mm
Remarks	incl. 4xLNB and switch



TD - 3°-20° FlexiBlock - 3xLNB

Art. No. 300728

EAN Number 5702663007284

CHARACTERISTICS

Type	TD - 3°-20° FlexiBlock - 3xLNB
------	--------------------------------

MECHANICAL

Colour	Black/Alu
LNB size	Ø 40mm
Remarks	Ø 25 mm adaptor - optional extra



TD - 3°-20° FlexiBlock - 4xLNB

Art. No. 300727

EAN Number 5702663007277

CHARACTERISTICS

Type	TD - 3°-20° FlexiBlock - 4xLNB
------	--------------------------------

MECHANICAL

Colour	Black/Alu
LNB size	Ø 40mm
Remarks	Ø 25 mm adaptor - optional extra



TRIAX[®] multiswitch solutions

complete range from 1 to 4 satellite positions & terrestrial



What do you need a multiswitch for ?

- From a technical point of view, multiswitches enable many satellite set-top box users to share a single satellite dish, LNB and cabling installation. Multiswitches are future proofed and can deliver the full signal spectrum, so all users can enjoy full SDTV/HDTV/4K-UHD digital signal quality to a Satellite/Terrestrial set-top box TV.
- From an aesthetical and practical point of view, multiswitches can help you avoid having many dishes on a building, and avoid a lot of unstructured cabling whilst meeting regional planning regulations.

The TRIAX passive multiswitch range now accommodates either Terrestrial or CATV signals, offering the end user alternative subscription services. As these multiswitches are future proofed, the system can be expanded for more users. However, to increase the number of Satellite positions the system would need to be redesigned. Despite their advanced and technical qualities, all TRIAX products are designed to be easily installed.

When should you use a multiswitch ?

- Whenever more than four users have their own individual satellite set-top box and need terrestrial signals, a multiswitch is the best solution for combining the signals onto a single cable.
- When many different channels are required.
- When users live in the same apartment block. The number of satellite positions and polarities, along with user/subscriber outputs, determine the right choice of multiswitch for you. Solutions exist for one to four individual satellite positions or a total of 16 individual satellite polarities. DiSEqC technology is used to select the required satellite.

The TRIAX multiswitch system is the ideal, cost effective solution that offers the end user total flexibility and choice.



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CABLE TV
(CATV)

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TRIAX[®] multiswitch solutions

products for the perfect solution

A complete satellite reception solution

The single most important part of an installation is the quality of the incoming signals. As a minimum, we recommend you use a TD78 or larger satellite dish for optimum signal levels depending upon the geographical location of the installation. It is not recommended to compromise on the size of the dish, as the system is dependent on high quality signals from the outset – to do so could introduce rain fade issues caused by bad weather.

These issues can't be remedied anywhere along the distribution path as the C/N has been affected. Multiswitch systems require the correct size dish, Quattro band LNB and an LTE aerials such as a the TRIAX UNIX range.

Smaller systems for up to 4 users could reuse the Quad LNB alongside the standalone multiswitch series supporting 22kHz tone selection.

A selection of the best



TD DISHES

As a leading satellite dish manufacturer, TRIAX produce sturdy and robust satellite dishes for high quality installations. The TD range come part assembled to reduce installation time and cost.

LNB UNITS

TRIAX LNBs employ the latest technology and meet the highest specifications to ensure low noise and high cross polar rejection.



AERIALS

TRIAX aerials are manufactured to the latest LTE specifications and are tested to a rigorous benchmark standard.



The TRIAX UNIX LTE range ensures maximum gain and rejection, achieving maximum signal transfer from the antenna to amplifiers and switches, so that the MER readings are maintained.

Coaxial cables

The performance of the multiswitch installation relies heavily on the quality of the distribution cable installed to deliver signal levels and immunity to interference. TRIAX supplies a range of high quality coax cables with Class A++ screening.

Fibre Optical cables

We also have a full range of fibre optic cables to support the range of optical converters and multiswitches. The converters allow the fibre to be converted back to coax and have a traditional multiswitch distribution system.

Multiswitches

A multiswitch device is the rational way of providing satellite signals to multiple (usually more than four or eight) satellite receivers from a single dish and LNB. Its task is to be „invisible“ to the satellite STB as it mimics all the functions of standard Universal LNB units and, optionally, DiSEqC switches.

Many versions are available to allow you to customise for many particular local needs.



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Focus on satellite reception solutions

If a picture is worth a thousand words, this page will save you a lot of reading

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- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
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- OUTLETS TAPS & SPLITTER
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- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX

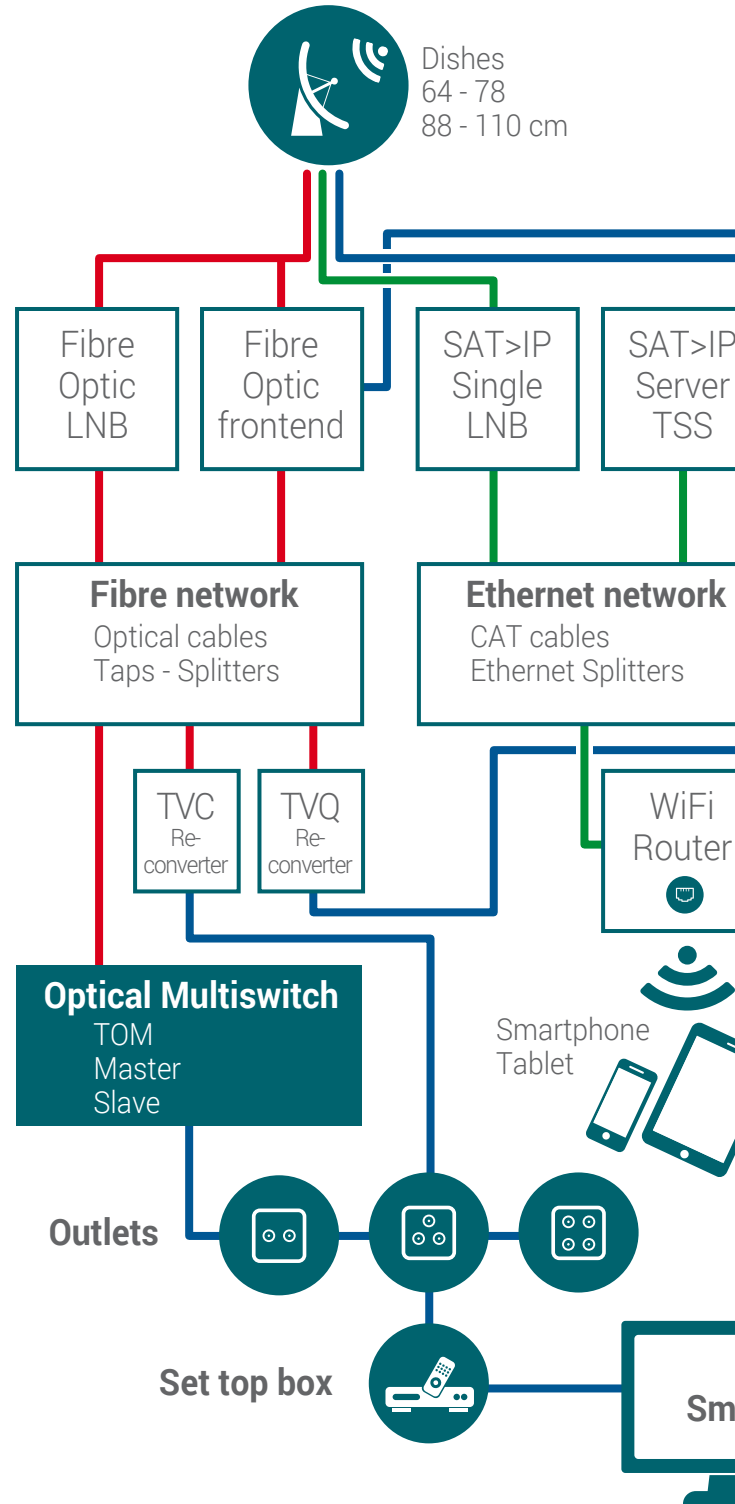
 Fibre Optical Cable system

 Coax Cable system

 CAT Cable system

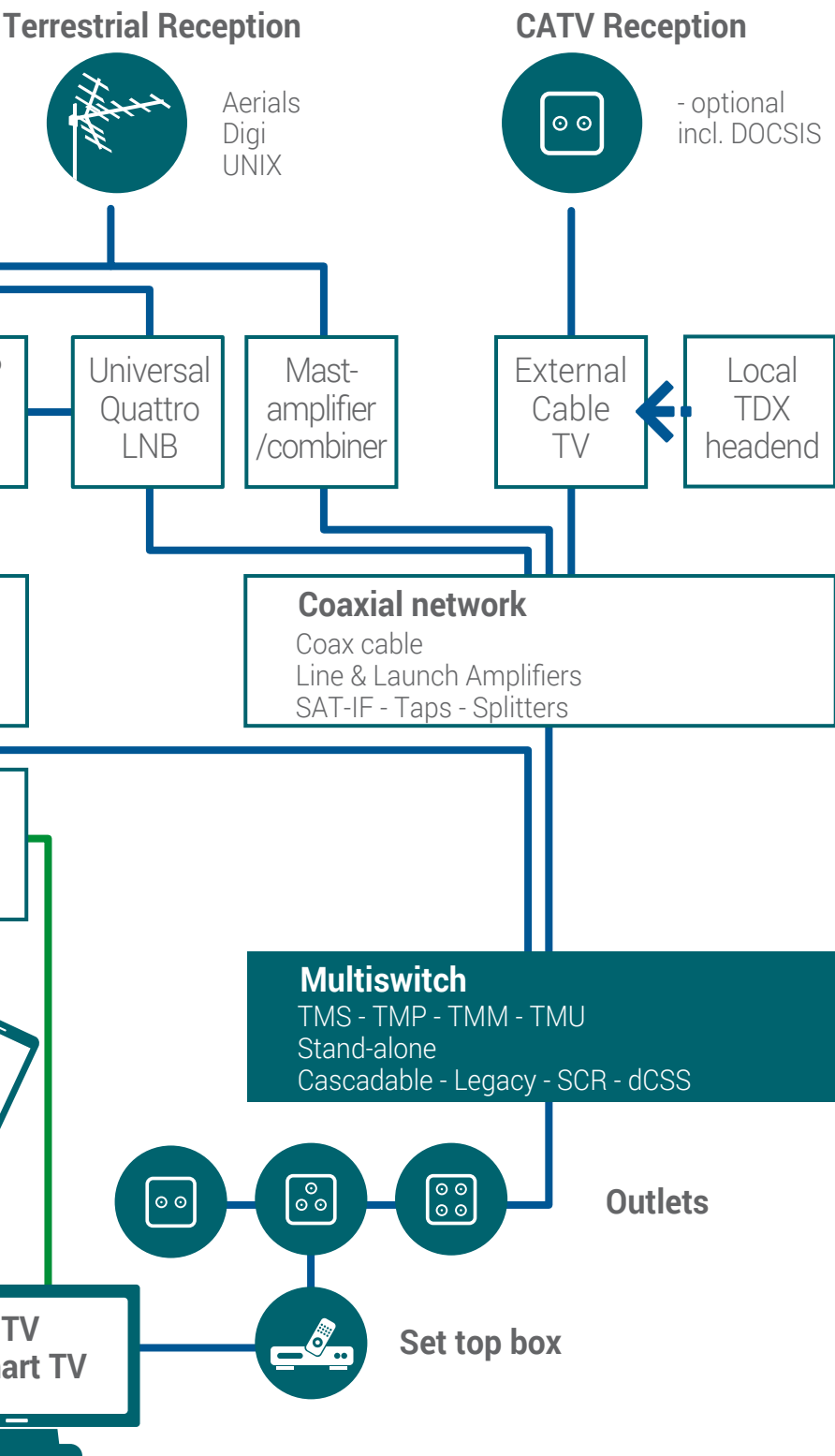


Satellite Reception



TRIAX[®] multiswitch solutions

products for the perfect solution



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Notes

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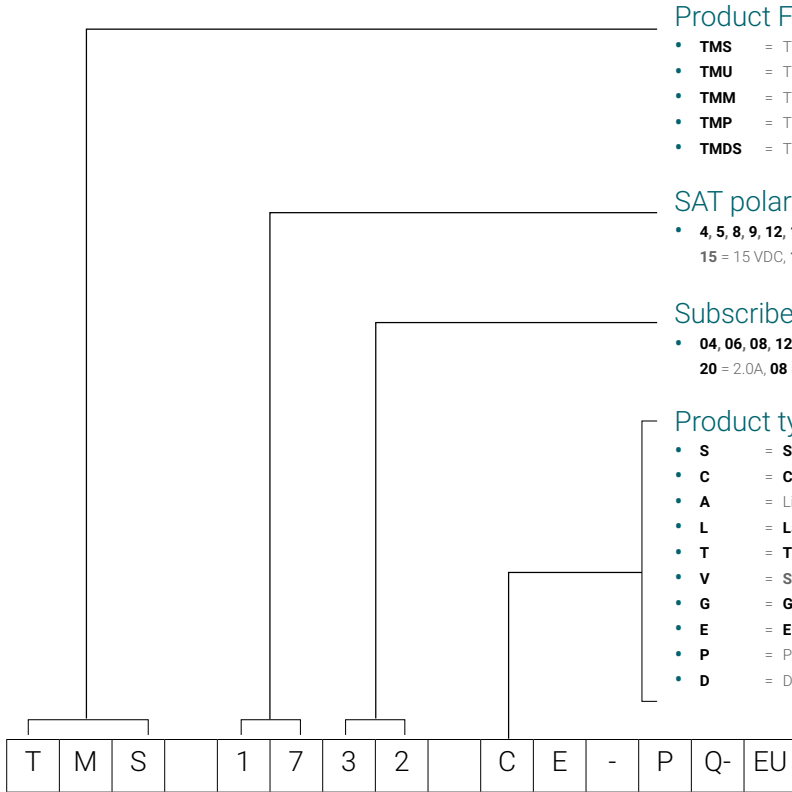
**INSTRUMENTS
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Lined writing area for notes, consisting of 10 horizontal lines.

“How we name the multi switch products...”

a quick guide on how-to-read the types



Product Family name

- **TMS** = TRIAX Multi Switch, traditional SAT-IF/TER, SAT->IP, etc.
- **TMU** = TRIAX Multi Switch, with Unicable/SatSCR support
- **TMM** = TRIAX Multi Switch Modular with attenuator
- **TMP** = TRIAX Multi Switch with attenuator and internal Power Supply (PSU)
- **TMDS** = TRIAX Multi Switch, with digital SatSCR support

SAT polarities plus TER or VDC (for PSU)

- **4, 5, 8, 9, 12, 13, 16, 17** = Number of satellite polarities + TER (if any)
15 = 15 VDC, **18** = 18 VDC etc. (PSU)

Subscriber output or max. current in Amp.(for PSU)

- **04, 06, 08, 12, 16, 24 or 32** = Number of subscriber outputs (TAP offs)
20 = 2.0A, **08** = 800 mA, etc. (PSUs)

Product type

- **S** = Stand-alone multi switch
- **C** = Cascadable multi switch
- **A** = Line **A**mplifier (SAT-IF/TER, individual or combined)
- **L** = Launch Amplifier (SAT-IF/TER, individual or combined)
- **T** = Tap unit or **T**erminated Cascade switch
- **V** = Splitter unit
- **G** = Ground accessory (Earth bond bar)
- **E** = End terminator accessory
- **P** = Power supply / Power inserter, etc.
- **D** = DiSeqC switch

Power Supply (PSU)

- **nothing** = external power supply.
- **EU** = internal/fixed/mounted power supply, EU mains plug
- **BS** = internal/fixed/mounted power supply, BS mains plug
- **R** = receiver powered, no PSU required

Support

- **Q** = QUAD support. TMS 5xx types only. Has 13/18 VDC and 22 kHz on LNB inputs to allow a QUAD LNB to work as a QUATTRO LNB
- **I** = SAT->IP Server support
- **-/nothing** = none of the above

Terrestrial path

- **A** = Active TER path
- **P** = Passive TER path
- **-/nothing** = not applicable (Accessory, PSU, etc)

Origin

- **E** = Made in Europe, “Euroline range”
- **Nothing** = Made outside Europe, Current and future product range

Legend:



Passive Terrestrial loopthrough



Active Terrestrial loopthrough



1 ... 4 satellite positions



Numbers of subscriber outputs from the multiswitch

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TRIAX[®] multiswitch solutions

standalone, quad LNB support, active TER, EU Mains plug



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Common features - Standalone switches

- The best solution for installations of between 6 and 32 satellite receivers within relatively short distance from each other and the switch.
- Quad LNB support: no need to buy a quattro LNB
- Active Terrestrial: for when you need a terrestrial TV input alongside the satellite signal.
- EU mains plug: where mains power is available.
- If you require a terrestrial TV input along with the satellite signal, please choose a version with an active TER path.
- If a CATV system is available, we recommend using a version with a passive TER path.

TMS 506 SE AQ-EU

Art. No. 318102

EAN Number
5702663181021



TMS 516 SE AQ-EU

Art. No. 318124

EAN Number
5702663181243



TMS 508 SE AQ-EU

Art. No. 318108

EAN Number
5702663181083



TMS 524 SE AQ-EU

Art. No. 318130

EAN Number
5702663181304



TMS 512 SE AQ-EU

Art. No. 318116

EAN Number
5702663181168



TMS 532 SE AQ-EU

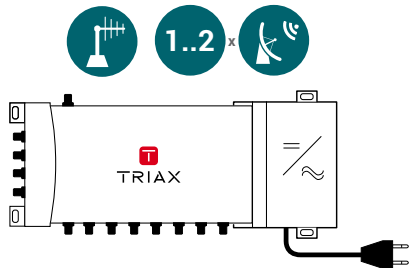
Art. No. 318140

EAN Number
5702663181403



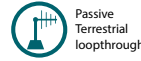
TRIAX® multiswitch solutions

1 position



6 8 12 16 24 32

Legend:



1...4 satellite positions

6 8 12 16 24 28 32

Numbers of subscriber outputs from the multiswitch

Type:	TMS 506 SE AQ-EU Stand-alone	TMS 508 SE AQ-EU Stand-alone	TMS 512 SE AQ-EU Stand-alone	TMS 516 SE AQ-EU Stand-alone	TMS 524 SE AQ-EU Stand-alone	TMS 532 SE AQ-EU Stand-alone
Art. no.	318102	318108	318116	318124	318130	318140
CHARACTERISTICS						
LNB current max.	500mA	500mA	500mA	500mA	500mA	500mA
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	90dBμV	90dBμV	90dBμV	90dBμV	90dBμV	90dBμV
Switch commands	13/18 V, 0/22 kHz					
FREQUENCY						
Frequency range SAT	950...2400MHz					
Frequency range TER	40...862MHz					
GAIN						
Gain - SAT (with 5 dB slope)	-2... +3 ±2dB	-2... +3 ±2dB	-2... +3 ±2dB	-2... +3 ±2dB	-6... 0 ±2dB	-6... 0 ±2dB
Gain - TER [47-862 MHz]	-2 ±2dB	-2 ±2dB	-3 ±3dB	-3 ±3dB	-3 ±3dB	-3 ±3dB
ISOLATION						
Cross polarisation H/V	typ. 30dB					
Isolation SAT to TER	typ. 30dB					
Isolation TER to SAT	typ. 30dB					
RETURN LOSS						
Return loss SAT inputs	>10dB					
Return loss SAT outputs	>10dB					
Return loss TER inputs	>10dB					
Return loss TER outputs	>10dB					
ELECTRICAL						
Impedance	75Ω					
OPERATIONAL						
Control LEDs	Green LED (Power)					
Max. current @ 13 V/18V	120mA	120mA	250mA	250mA	305mA	305mA
Max. current to output (supplied by set top box)	27mA	27mA	38mA	38mA	29mA	29mA
Power Consumption (typ.)	3W	3W	5,5W	5,5W	6,5W	6,5W
Temperature range	0...+55°C					
CONNECTORS						
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow					
Connector Type	F-female					
DC input connector	N/A (Built-in PSU)					
Number of inputs	5	5	5	5	5	5
Subscriber outputs	6	8	12	16	24	32
MECHANICAL						
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	110mm	110mm	110mm	110mm	140mm	140mm
Width (mm)	222mm	222mm	310mm	310mm	324mm	324mm
Height (mm)	57mm	57mm	57mm	57mm	63mm	63mm
Material	steel metal cabinet					
Packing QTY	1	1	1	1	1	1

TERRESTRIAL
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TRIAX[®] multiswitch solutions

standalone active TER – built-in PSU with EU plug



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Common features - Standalone switches

- The best solution for installations of between 6 and 32 satellite receivers within relatively short distance from each other and the switch.
- Active Terrestrial: for when you need a terrestrial TV input alongside the satellite signal.
- EU mains plug: where mains power is available.



TMS 506 SE A-EU

Art. No. 318105

EAN Number
5702663181052



TMS 516 SE A-EU

Art. No. 318123

EAN Number
5702663181236



TMS 508 SE A-EU

Art. No. 318111

EAN Number
5702663181113



TMS 524 SE A-EU

Art. No. 318135

EAN Number
5702663181359



TMS 512 SE A-EU

Art. No. 318115

EAN Number
5702663181151



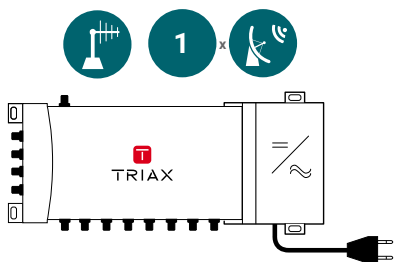
TMS 532 SE A-EU

Art. No. 318145

EAN Number
5702663181458

TRIAX® multiswitch solutions

1 position



6 8 12 16 24 32

Legend:



6 8 12 16 24 28 32

Numbers of subscriber outputs from the multiswitch

Type:	TMS 506 SE A-EU Stand-alone	TMS 508 SE A-EU Stand-alone	TMS 512 SE A-EU Stand-alone	TMS 516 SE A-EU Stand-alone	TMS 524 SE A-EU Stand-alone	TMS 532 SE A-EU Stand-alone
Art. no.	318105	318111	318115	318123	318135	318145
CHARACTERISTICS						
LNB current max.	500mA	500mA	500mA	500mA	500mA	500mA
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	90dBμV	90dBμV	88dBμV	88dBμV	88dBμV	91dBμV
Switch commands	13/18 V, 0/22 kHz					
FREQUENCY						
Frequency range SAT	950...2400MHz					
Frequency range TER	40...862MHz					
GAIN						
Gain - SAT (with 5 dB slope)	-2...+3 ±2dB	-2...+3 ±2dB	-2...+3 ±2dB	-2...+3 ±2dB	-2...+3 ±2dB	-2...+3 ±2dB
Gain - TER [47-862 MHz]	-2 ±2dB	-2 ±2dB	-3 ±3dB	-3 ±3dB	-3 ±3dB	-3 ±3dB
ISOLATION						
Cross polarisation H/V	typ. 30dB					
Isolation SAT to TER	typ. 30dB					
Isolation TER to SAT	typ. 30dB					
RETURN LOSS						
Return loss SAT inputs	>10dB					
Return loss SAT outputs	>10dB					
Return loss TER inputs	>10dB					
Return loss TER outputs	>10dB					
ELECTRICAL						
Impedance	75Ω					
OPERATIONAL						
Control LEDs	Green LED (Power)					
Max. current @ 13 V/18V	120mA	120mA	250mA	250mA	305mA	305mA
Max. current to each output (supplied by set top box)	27mA	27mA	38mA	38mA	29mA	35mA
Power Consumption (typ.)	3,5W	3,5W	5,5W	5,5W	6,5W	6,5W
Temperature range	0...+55 °C°C	0...+55 °C°C	0...+55 °C°C	0...+55 °C°C	0...+55 °C°C	0...+55 °C°C
CONNECTORS						
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow					
Connector Type	F-female					
DC input connector	N/A (Built-in PSU)					
Number of inputs	5	5	5	5	5	5
Subscriber outputs	6	8	12	16	24	32
MECHANICAL						
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	110mm	110mm	110mm	110mm	140mm	140mm
Width (mm)	222mm	222mm	310mm	310mm	324mm	324mm
Height (mm)	57mm	57mm	57mm	57mm	63mm	63mm
Material	steel metal cabinet					
Packing QTY	1	1	1	1	1	1

TERRESTRIAL RECEPTION
SATELLITE & FIBRE RECEPTION
CABLE TV (CATV)
HEADENDS CAS SYSTEM MODULATORS
CABLES & CONNECTORS
OUTLETS TAPS & SPLITTER
INHOUSE CONNECTIVITY
SURVEILLANCE (CCTV)
INSTRUMENTS TOOLS & CABINETS
TECHNICAL APPENDIX

TRIAX[®] multiswitch solutions

standalone active TER – built-in PSU with EU plug



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
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INHOUSE
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SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
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TMS 908 SE A-EU

Art. No. 318206

EAN Number
5702663182066



TMS 924 SE A-EU

Art. No. 318234

EAN Number
5702663182349



TMS 912 SE A-EU

Art. No. 318214

EAN Number
5702663182141



TMS 932 SE A-EU

Art. No. 318244

EAN Number
5702663182448



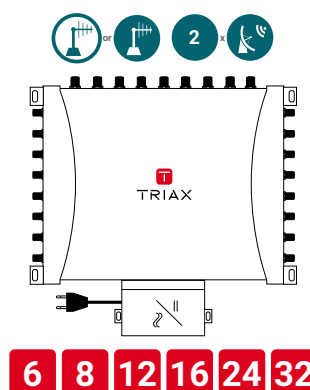
TMS 916 SE A-EU

Art. No. 318224

EAN Number
5702663182240

TRIAX® multiswitch solutions

2 positions



Type:	TMS 908 SE A-EU	TMS 912 SE A-EU	TMS 916 SE A-EU	TMS 924 SE A-EU	TMS 932 SE A-EU
Art. no.	318206	318214	318224	318234	318244
CHARACTERISTICS					
Max. output level SAT @ -35 dB IMD3	100dB μ V	100dB μ V	100dB μ V	100dB μ V	100dB μ V
Max. output level TER @ 60dB IMD3	91dB μ V	90dB μ V	88dB μ V	88dB μ V	90dB μ V
Switch commands	13/18 V, 0/22 kHz, DiSEqC 1.0	13/18 V, 0/22 kHz, DiSEqC 1.0	13/18 V, 0/22 kHz, DiSEqC 1.0	13/18 V, 0/22 kHz, DiSEqC 1.0	13/18 V, 0/22 kHz, DiSEqC 1.0
FREQUENCY					
Frequency range SAT	950...2400MHz	950...2400MHz	950...2400MHz	950...2400MHz	950...2400MHz
Frequency range TER	40...862MHz	40...862MHz	40...862MHz	40...862MHz	40...862MHz
GAIN					
Gain - SAT (with 5 dB slope)	-5...+2 \pm 2dB	-2...+2 \pm 2dB	-2...+2 \pm 2dB	-2...+2 \pm 2dB	-2...+2 \pm 2dB
Gain - TER [47-862 MHz]	-2 \pm 2dB	-2 \pm 2dB	-2 \pm 2dB	-2 \pm 2dB	-2 \pm 2dB
ISOLATION					
Isolation cross polarisation H/V			typ. 30dB		
Isolation SAT to TER			typ. 30dB		
RETURN LOSS					
Return loss SAT inputs			>10dB		
Return loss SAT outputs			>10dB		
Return loss TER inputs			>10dB		
Return loss TER outputs			>10dB		
ELECTRICAL					
Impedance			75 Ω		
OPERATIONAL					
Control LEDs			Green LED (Power)		
Max. current to each output (supplied by set top box)	43mA	43mA	43mA	43mA	43mA
Power Consumption (typ.)	2,5W	5,5W	5,5W	6,5W	6,5W
Temperature range	0...+55 $^{\circ}$ C	0...+55 $^{\circ}$ C	0...+55 $^{\circ}$ C	0...+55 $^{\circ}$ C	0...+55 $^{\circ}$ C
CONNECTORS					
Colourcoding on inputs		VL=Black, VH=Red, HL=Green, HH=Yellow			
Connector Type			F-female		
DC input connector			N/A (Built-in PSU)		
Number of inputs	9	9	9	9	9
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	110mm	198mm	198mm	198mm	198mm
Width (mm)	270mm	272mm	272mm	390mm	390mm
Height (mm)	63mm	63mm	63mm	63mm	63mm
Length (mm)	mm	mm	mm	mm	mm
Material			steel metal cabinet		
Packing QTY	1	1	1	1	1

- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX

TRIAX[®] multiswitch solutions

standalone active TER – built-in PSU with EU plug



TERRESTRIAL
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TMS 1308 SE A-EU

Art. No. 318308

EAN Number
5702663183087



TMS 1324 SE A-EU

Art. No. 318332

EAN Number
5702663183322



TMS 1312 SE A-EU

Art. No. 318316

EAN Number
5702663183162



TMS 1332 SE A-EU

Art. No. 318340

EAN Number
5702663183407



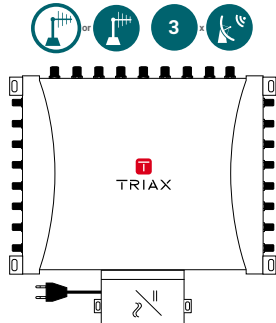
TMS 1316 SE A-EU

Art. No. 318324

EAN Number
5702663183247

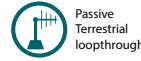
TRIAX[®] multiswitch solutions

3 positions



6 8 12 16 24 32

Legend:



1...4 satellite positions

6 8 12 16 24 28 32

Numbers of subscriber outputs from the multiswitch

Type:	TMS 1308 SE A-EU Stand-alone	TMS 1312 SE A-EU Stand-alone	TMS 1316 SE A-EU Stand-alone	TMS 1324 SE A-EU Stand-alone	TMS 1332 SE A-EU Stand-alone
Art. no.	318308	318316	318324	318332	318340
CHARACTERISTICS					
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	88dBμV	90dBμV	90dBμV	90dBμV	90dBμV
Switch commands	13/18 V, 0/22 kHz, DiSEqC 1.0				
FREQUENCY					
Frequency range SAT	950...2400MHz				
Frequency range TER	40...862MHz				
LOSS					
Insertion loss - SAT	-2...+2 ±2dB	-3...0 ±2dB	-3...0 ±2dB	-5...-2 ±2dB	-5...-2 ±2dB
Insertion loss - TER	-2 ±2dB	-3 ±3dB	-3 ±3dB	-3 ±3dB	-3 ±3dB
ISOLATION					
Isolation cross polarisation H/V	typ. 30dB				
Isolation SAT to TER	typ. 30dB				
RETURN LOSS					
Return loss SAT inputs	>10dB				
Return loss SAT outputs	>10dB				
Return loss TAP outputs	>10dB				
Return loss TER inputs	>10dB				
Return loss TER outputs	>10dB				
ELECTRICAL					
Impedance	75Ω				
OPERATIONAL					
Control LEDs	Green LED (Power)				
Max. current to each output (supplied by set top box)	68mA	68mA	68mA	68mA	68mA
AC Supply voltage	90...264 / 50...60HzVAC				
Power Consumption (typ.)	6,5W	5,5W	5,5W	5,5W	5,5W
Temperature range	0...+55°C				
CONNECTORS					
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow				
Connector Type	F-female				
DC input connector	N/A (Built-in PSU)				
Number of inputs	13	13	13	13	13
Number of outputs	13	13	13	13	13
Number of trunk inputs	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER
Number of trunk outputs	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER
Power connector	EU Plug	EU Plug	EU Plug	EU Plug	EU Plug
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	286mm	286mm	286mm	286mm	286mm
Width (mm)	272mm	272mm	272mm	395mm	395mm
Height (mm)	63mm	63mm	63mm	63mm	63mm
Material	steel metal cabinet				
Packing QTY	1	1	1	1	1

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

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TRIAX® multiswitch solutions

standalone active TER – built-in PSU with EU plug



TERRESTRIAL
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TMS 1308 SE A-EU

Art. No. 318308

EAN Number
5702663183087



TMS 1324 SE A-EU

Art. No. 318332

EAN Number
5702663183322



TMS 1312 SE A-EU

Art. No. 318316

EAN Number
5702663183162



TMS 1332 SE A-EU

Art. No. 318340

EAN Number
5702663183407



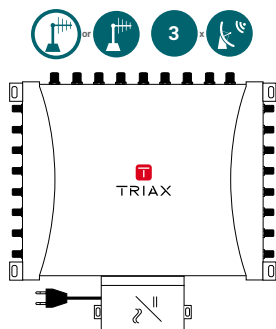
TMS 1316 SE A-EU

Art. No. 318324

EAN Number
5702663183247

TRIAX[®] multiswitch solutions

3 positions



6 8 12 16 24 32

Legend:



1...4 satellite positions

6 8 12 16 24 28 32

Numbers of subscriber outputs from the multiswitch

Type:	TMS 1308 SE A-EU Stand-alone	TMS 1312 SE A-EU Stand-alone	TMS 1316 SE A-EU Stand-alone	TMS 1324 SE A-EU Stand-alone	TMS 1332 SE A-EU Stand-alone
Art. no.	318308	318316	318324	318332	318340
CHARACTERISTICS					
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	88dBμV	90dBμV	90dBμV	90dBμV	90dBμV
Switch commands	13/18 V, 0/22 kHz, DiSEqC 1.0				
FREQUENCY					
Frequency range SAT	950...2400MHz				
Frequency range TER	40...862MHz				
LOSS					
Insertion loss - SAT	-2...+2 ±2dB	-3...0 ±2dB	-3...0 ±2dB	-5...-2 ±2dB	-5...-2 ±2dB
Insertion loss - TER	-2 ±2dB	-3 ±3dB	-3 ±3dB	-3 ±3dB	-3 ±3dB
ISOLATION					
Isolation cross polarisation H/V	typ. 30dB				
Isolation SAT to TER	typ. 30dB				
RETURN LOSS					
Return loss SAT inputs	>10dB				
Return loss SAT outputs	>10dB				
Return loss TAP outputs	>10dB				
Return loss TER inputs	>10dB				
Return loss TER outputs	>10dB				
ELECTRICAL					
Impedance	75Ω				
OPERATIONAL					
Control LEDs	Green LED (Power)				
Max. current to each output (supplied by set top box)	68mA	68mA	68mA	68mA	68mA
AC Supply voltage	90...264 / 50...60HzVAC				
Power Consumption (typ.)	6,5W	5,5W	5,5W	5,5W	5,5W
Temperature range	0...+55°C				
CONNECTORS					
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow				
Connector Type	F-female				
DC input connector	N/A (Built-in PSU)				
Number of inputs	13	13	13	13	13
Number of outputs	13	13	13	13	13
Number of trunk inputs	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER
Number of trunk outputs	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER
Power connector	EU Plug	EU Plug	EU Plug	EU Plug	EU Plug
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	286mm	286mm	286mm	286mm	286mm
Width (mm)	272mm	272mm	272mm	395mm	395mm
Height (mm)	63mm	63mm	63mm	63mm	63mm
Material	steel metal cabinet				
Packing QTY	1	1	1	1	1

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

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SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX

TRIAX[®] multiswitch solutions

standalone active TER – built-in PSU with EU plug



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**TMP 5X8 Stand alone -
4SAT+1TER+PSU / 8out**

Art. No. 301620

EAN Number
5702663016200



**TMP 5X24 Stand alone -
4SAT+1TER+PSU / 24out**

Art. No. 301626

EAN Number
5702663016262



**TMP 5X12 Stand alone -
4SAT+1TER+PSU / 12out**

Art. No. 301622

EAN Number
5702663016224



**TMP 5X32 Stand alone -
4SAT+1TER+PSU / 32out**

Art. No. 301628

EAN Number
5702663016286



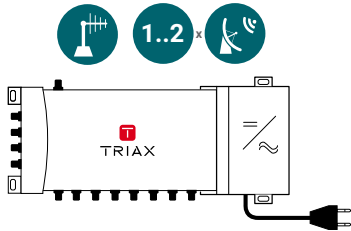
**TMP 5x16 Stand alone -
4SAT+1TER+PSU / 16out**

Art. No. 301624

EAN Number
5702663016248

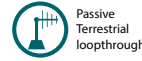
TRIAX® multiswitch solutions

1 position



6 8 12 16 24 32

Legend:



1...4 satellite positions

6 8 12 16 24 28 32

Numbers of subscriber outputs from the multiswitch

Type:	TMP 5X8 / 8out	TMP 5X12 / 12out	TMP 5X16 / 16out	TMP 5X24 / 24out	TMP 5X32 / 32out
Art. no.	301620	301622	301624	301626	301628
CHARACTERISTICS					
Input pol. gain control SAT	4 X 10.0dB	4 X 10.0dB	4 X 10.0dB	4 X 10.0dB	4 X 10.0dB
Input pol. gain control TER	15.0dB	15.0dB	15.0dB	15.0dB	15.0dB
LNB current max.	600mA	600mA	600mA	600mA	600mA
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	95dBμV	95dBμV	95dBμV	95dBμV	95dBμV
Switch commands	13V/18V - 13V/22 kHz - 18V/22 kHz				
FREQUENCY					
Frequency range SAT	950-2150MHz				
Frequency range TER	47-862MHz				
GAIN					
Gain - SAT (5 dB slope)					
Gain - TER [47-862 MHz]					
LOSS					
Insertion loss - trunkline SAT	3.0dB	3.0dB	3.0dB	2.0dB	3.0dB
Insertion loss - trunkline TER	3.0dB	3.0dB	0.0dB	0.0dB	0.0dB
ISOLATION					
Cross polarisation H/V	30dB				
Isolation out-out SAT	30dB				
Isolation out-out TER	30dB				
Isolation SAT to TER	32dB				
Isolation TER to SAT	32dB				
RETURN LOSS					
Return loss SAT inputs	10dB				
Return loss SAT outputs	8dB				
Return loss TER inputs	10dB				
Return loss TER outputs	8dB				
ELECTRICAL					
Impedance	75Ω				
OPERATIONAL					
DC Operating voltage	18.0VDC	18.0VDC	18.0VDC	18.0VDC	18.0VDC
DC Current cons. (typ.)	1500 (47-63 Hz)mA				
LINE power current (max.)	50.0mA	50.0mA	50.0mA	50.0mA	50.0mA
LINE power DC volt. (max.)	12.0VDC	12.0VDC	12.0VDC	12.0VDC	12.0VDC
Max. current pass F-conn.					
AC Supply voltage	180...264VAC				
Temperature range	0...+55°C	0...+55°C	0...55°C	0...55°C	0...55°C
CONNECTORS					
Colourcoding on inputs	Yes				
Connector Type	F-female				
Number of inputs	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	157mm	157mm	157mm	157mm	157mm
Width (mm)	190mm	240mm	240mm	340mm	340mm
Height (mm)	51mm	51mm	51mm	51mm	51mm
Packing QTY	1	1	1	1	1

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

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TECHNICAL APPENDIX

TRIAX[®] multiswitch solutions (LTE)

standalone active TER – built-in PSU with EU plug



TERRESTRIAL
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& FIBRE
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(CATV)

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**TMP 5x8 Stand alone -
4SAT+1TER+PSU / 8out -
LTE protected**

Art. No. 305371

EAN Number
5702663053717



**TMP 5x24 Stand alone -
4SAT+1TER+PSU / 24out -
LTE protected**

Art. No. 305377

EAN Number
5702663053779



**TMP 5x12 Stand alone -
4SAT+1TER+PSU / 12out -
LTE protected**

Art. No. 305373

EAN Number
5702663053731



**TMP 5x32 Stand alone -
4SAT+1TER+PSU / 32out -
LTE protected**

Art. No. 305379

EAN Number
5702663053793



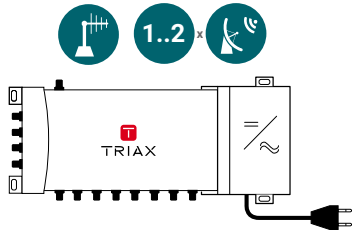
**TMP 5x16 Stand alone -
4SAT+1TER+PSU / 16out -
LTE protected**

Art. No. 305375

EAN Number
5702663053755

TRIAX® multiswitch solutions

1 position



6 8 12 16 24 32

Legend:



1...4 satellite positions

6 8 12 16 24 28 32

Numbers of subscriber outputs from the multiswitch

Type:	TMP 5x8 8out - LTE protected	TMP 5x12 12out - LTE protected	TMP 5x16 16out - LTE protected	TMP 5x24 24out - LTE protected	TMP 5x32 32out - LTE protected
Art. no.	305371	305373	305375	305377	305379
CHARACTERISTICS					
Input pol. gain control SAT	4 x 10.0dB	4 X 10.0dB	4 X 10.0dB	4 x 10.0dB	4 x 10.0dB
Input pol. gain control TER	15.0dB	15.0dB	15.0dB	15.0dB	15.0dB
LNB current max.	1000mA	1000mA	1000mA	1000mA	1000mA
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	90dBμV	88dBμV	88dBμV	85dBμV	85dBμV
Switch commands	13V/18V - 13V/22 kHz - 18V/22 kHz				
FREQUENCY					
Frequency range SAT	950-2150MHz				
Frequency range TER	47-862MHz				
LOSS					
Equalization TER	10.0	10.0	10.0	10.0	10.0
Insertion loss - SAT	0dB	3dB	3dB	3dB	3dB
Insertion loss - TER	0dB	3dB	3dB	0dB	0dB
ISOLATION					
Isolation cross pol. H/V	30dB				
Isolation out-out SAT	30dB				
Isolation out-out TER	30dB				
Isolation SAT to TER	32dB				
Isolation TER to SAT	32dB				
RETURN LOSS					
Return loss SAT inputs	10dB	10dB	10dB	10dB	10dB
Return loss SAT outputs	8dB	8dB	8dB	8dB	8dB
Return loss TER inputs	10dB	10dB	10dB	10dB	10dB
Return loss TER outputs	8dB	8dB	8dB	8dB	8dB
ELECTRICAL					
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL					
DC Current consump.(typ.)	1500 (47-63 HZ)mA				
LINE power current (max.)	50.0mA	50.0mA	50.0mA	50.0mA	50.0mA
LINE power DC voltage (max.)	12.0 Switchable On Terr. Input for Masthead AmplifierVDC				
AC Supply voltage	180...264VAC	180...264VAC	180...264VAC	180...264VAC	180...264VAC
Temperature range	0...+55°C	0...+55°C	0...+55°C	0...+55°C	0...+55°C
CONNECTORS					
Colourcoding on inputs	Yes	Yes	Yes	Yes	Yes
Connector Type	F-female	F-female	F-female	F-female	F-female
Number of inputs	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Depth	56mm	56mm	56mm	56mm	56mm
Height	170mm	170mm	170mm	170mm	170mm
Width	232mm	282mm	282mm	382mm	382mm
Packing QTY	1	1	1	1	1
Remarks	LTE rejection: 766...790 MHz -3 dB / 790...821MHz -25dB /821...862 MHz 0 dB				

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX

TRIAX[®] multiswitch solutions

standalone active TER – built-in PSU with EU plug



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features - Standalone switches

- The best solution for installations of between 6 and 32 satellite receivers within relatively short distance from each other and the switch.
- Active Terrestrial: for when you need a terrestrial TV input alongside the satellite signal.
- EU mains plug: where mains power is available.



**TMP 9X8 Stand alone -
8SAT+1TER+PSU / 8out**

Art. No. 301630
EAN Number
5702663016309



**TMP 9X24 Stand alone -
8SAT+1TER+PSU / 24out**

Art. No. 301636
EAN Number
5702663016361



**TMP 9X12 Stand alone -
8SAT+1TER+PSU / 12out**

Art. No. 301632
EAN Number
5702663016323



**TMP 9X32 Stand alone -
8SAT+1TER+PSU / 32out**

Art. No. 301638
EAN Number
5702663016385

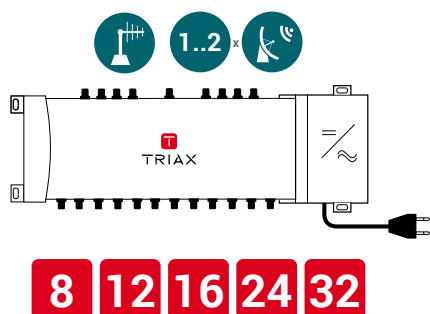


**TMP 9X16 Stand alone -
8SAT+1TER+PSU / 16out**

Art. No. 301634
EAN Number
5702663016347

TRIAX® multiswitch solutions

2 positions



Legend:



Type:	TMP 9X8 Stand alone	TMP 9X12 Stand alone	TMP 9X16 Stand alone	TMP 9X24 Stand alone	TMP 9X32 Stand alone
Art. no.	301630	301632	301634	301636	301638
CHARACTERISTICS					
Input polarity gain control SAT	4 X 10.0dB	4 X 10.0dB	4 X 10.0dB	4 X 15.0dB	4 X 15.0dB
Input polarity gain control TER	15.0dB	15.0dB	15.0dB	15.0dB	15.0dB
LNB current max.	600mA	600mA	600mA	600mA	600mA
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	95dBμV	95dBμV	95dBμV	95dBμV	95dBμV
Switch commands	13V/18V - 13V /22 kHz - 18V /22 kHz - DiSEqC 2.0				
FREQUENCY					
Frequency range SAT	950-2150MHz	950-2150MHz	950-2150MHz	950-2150MHz	950-2150MHz
Frequency range TER	47-862MHz	47-862MHz	47-862MHz	47-862MHz	47-862MHz
LOSS					
Insertion loss - trunkline SAT	3.0dB	3.0dB	3.0dB	2.0dB	2.0dB
Insertion loss - trunkline TER	3.0dB	3.0dB	3.0dB	2.0dB	2.0dB
ISOLATION					
Isolation cross polarisation H/V				30dB	
Isolation out-out SAT				30dB	
Isolation out-out TER				30dB	
Isolation SAT to TER				32dB	
Isolation TER to SAT				32dB	
RETURN LOSS					
Return loss SAT inputs	10dB	10dB	10dB	10dB	10dB
Return loss SAT outputs	8dB	8dB	8dB	10dB	10dB
Return loss TER inputs	10dB	10dB	10dB	12dB	12dB
Return loss TER outputs	8dB	8dB	8dB	10dB	10dB
ELECTRICAL					
Impedance	75Ω				
OPERATIONAL					
DC Operating voltage	18.0VDC				
DC Current consumption (typ.)	1.5 (47-63 HZ)mA				
LINE power current (max.)	50mA				
LINE power DC voltage (max.)	12.0VDC				
AC Supply voltage	180...264 / 47...63HzVAC				
Temperature range	-20...+55°C	0...+55°C	0...+55°C	0...+55°C	0...+55°C
CONNECTORS					
Colourcoding on inputs	Yes				
Connector Type	F-female				
Number of inputs	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Depth (mm)	157mm	157mm	157mm	157mm	157mm
Width (mm)	190mm	240mm	240mm	340mm	340mm
Height (mm)	51mm	51mm	51mm	51mm	51mm
Packing QTY	1	1	1	1	1

TERRESTRIAL RECEPTION
SATELLITE & FIBRE RECEPTION
CABLE TV (CATV)
HEADENDS CAS SYSTEM MODULATORS
CABLES & CONNECTORS
OUTLETS TAPS & SPLITTER
INHOUSE CONNECTIVITY
SURVEILLANCE (CCTV)
INSTRUMENTS TOOLS & CABINETS
TECHNICAL APPENDIX

TRIAX[®] multiswitch solutions

standalone active TER – built-in PSU with EU plug



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features - Standalone switches

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- Active Terrestrial: for when you need a terrestrial TV input alongside the satellite signal.
- EU mains plug: where mains power is available.

TMS 9x4P Stand alone 8SAT+1TER+PSU / 4out

Art. No. 300344

EAN Number
5702663003446



TMS 9x12P Stand alone 8SAT+1TER+PSU / 12out

Art. No. 300342

EAN Number
5702663003422



TMS 9x6P Stand alone 8SAT+1TER+PSU / 6out

Art. No. 300346

EAN Number
5702663003460



TMS 9x16P Stand alone 8SAT+1TER+PSU / 16out

Art. No. 300347

EAN Number
5702663003477



TMS 9x8P Stand alone 8SAT+1TER+PSU / 8out

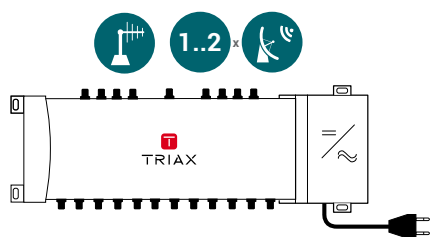
Art. No. 300348

EAN Number
5702663003484



TRIAX® multiswitch solutions

2 positions



8 12 16 24 32

Type:	TMS 9x4P Stand alone	TMS 9x6P Stand alone	TMS 9x8P Stand alone	TMS 9x12P Stand alone	TMS 9x16P Stand alone
Art. no.	300344	300346	300348	300342	300347
CHARACTERISTICS					
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	85dBμV	85dBμV	85dBμV	83dBμV	82dBμV
Switch commands	13/18 V, 0/22 kHz, DiSEqC 1.0				
FREQUENCY					
Frequency range SAT	950-2150MHz				
Frequency range TER	47-862MHz				
GAIN					
Gain - SAT (with 5 dB slope)	2dB	2dB	2dB	0dB	0dB
Gain - TER [47-862 MHz]	-2.0dB	-2.0dB	-2.0dB	4.0dB	2.0dB
ISOLATION					
Isolation cross polarisation H/V	28dB	28dB	28dB	25dB	25dB
Isolation out-out SAT	30dB	30dB	30dB	30dB	30dB
Isolation out-out TER	26dB	26dB	26dB	28dB	30dB
Isolation SAT to TER	30dB	30dB	30dB	30dB	28dB
Isolation TER to SAT	28dB	28dB	28dB	30dB	30dB
RETURN LOSS					
Return loss SAT inputs	14dB	14dB	14dB	10dB	10dB
Return loss SAT outputs	7dB	7dB	7dB	10dB	10dB
Return loss TER inputs	11dB	11dB	11dB	12dB	12dB
Return loss TER outputs	8dB	8dB	8dB	10dB	10dB
ELECTRICAL					
Impedance	75Ω				
OPERATIONAL					
DC Operating voltage	15.0 ± 1.0VDC	15.0 ± 1.0VDC	15.0 ± 1.0VDC	15.0 ± 1.0VDC	15.0 ± 1.0VDC
Max. current per F-connector	1000mA	1000mA	1000mA	1000mA	1000mA
Temperature range	0...+55°C	0...+55°C	0...+55°C	0...+55°C	0...+55°C
CONNECTORS					
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow				
Connector Type	F-female	F-female	F-female	F-female	F-female
Number of inputs	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER
Subscriber outputs	4	6	8	12	16
MECHANICAL					
Depth (mm)	103mm	103mm	103mm	103mm	103mm
Width (mm)	359mm	359mm	359mm	459mm	559mm
Height (mm)	71mm	71mm	71mm	71mm	71mm
Packing QTY	1	1	1	1	1

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX[®] multiswitch solutions (LTE)

standalone active TER – built-in PSU with EU plug



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



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- EU mains plug: where mains power is available.



**TMP 9x8 Stand alone -
8SAT+1TER+PSU / 8out -
LTE protected**

Art. No. 305381

EAN Number
5702663053816



**TMP 9x24 Stand alone -
8SAT+1TER+PSU / 24out -
LTE protected**

Art. No. 305387

EAN Number
5702663053878



**TMP 9x12 Stand alone -
8SAT+1TER+PSU / 12out -
LTE protected**

Art. No. 305383

EAN Number
5702663053830



**TMP 9x32 Stand alone -
8SAT+1TER+PSU / 32out -
LTE protected**

Art. No. 305389

EAN Number
5702663053892



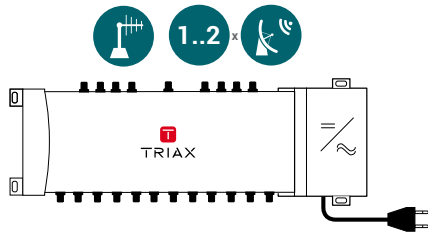
**TMP 9x16 Stand alone -
8SAT+1TER+PSU / 16out -
LTE protected**

Art. No. 305385

EAN Number
5702663053854

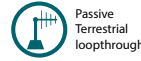
TRIAX[®] multiswitch solutions

2 positions



8 12 16 24 32

Legend:



1...4 satellite positions

6 8 12 16 24 28 32

Numbers of subscriber outputs from the multiswitch

Type:	TMP 9x8 Stand alone LTE protected	TMP 9x12 Stand alone LTE protected	TMP 9x16 Stand alone LTE protected	TMP 9x24 Stand alone LTE protected	TMP 9x32 Stand alone LTE protected
Art. no.	305381	305383	305385	305387	305389
CHARACTERISTICS					
Input polarity gain control SAT	10dB	10dB	10dB	10dB	10dB
Input polarity gain control TER	15dB	15dB	15dB	15dB	15dB
LNB current max.	1000mA	1000mA	1000mA	1000mA	1000mA
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	95dBμV	95dBμV
Max. output level TER @ 60dB IMD3	88dBμV	88dBμV	88dBμV	85dBμV	85dBμV
Switch commands	13V, 18V, 13V 22kHz, 18V 22kHz, DiSEqC 2.0				
FREQUENCY					
Frequency range SAT	950-2150MHz				
Frequency range TER	47-790MHz				
LOSS					
Equalization TER	10dB				
Insertion loss - SAT	3dB				
Insertion loss - TER	3dB				
ISOLATION					
Isolation cross polarisation H/V	30dB				
Isolation out-out SAT	30dB				
Isolation out-out TER	30dB				
Isolation SAT to TER	30dB				
Isolation TER to SAT	30dB				
RETURN LOSS					
Return loss SAT inputs	10dB				
Return loss SAT outputs	8dB				
Return loss TER inputs	10dB				
Return loss TER outputs	8dB				
ELECTRICAL					
Impedance	75Ω				
OPERATIONAL					
Control LEDs	Power On				
LINE power current (max.)	50mA				
LINE power DC voltage (max.)	12 (Switchable)VDC				
AC Supply voltage	180...264 / 47...63HzVAC				
Temperature range	0 to +55°C	0 to +55°C	0 to +55°C	0 to +55°C	0 to +55°C
CONNECTORS					
Colourcoding on inputs	Yes				
Connector Type	F-female				
Number of trunk inputs	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Depth (mm)	232mm	282mm	282mm	382mm	382mm
Width (mm)	170mm	170mm	170mm	170mm	170mm
Height (mm)	56mm	56mm	56mm	56mm	56mm
Packing QTY	1	1	1	1	1
Remarks	LTE Rejection: 790-821MHz = 25dB				

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX

TRIAX® multiswitch solutions

standalone, passive TER, EU mains plug



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features - Standalone switches

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TMS 506 SE P-EU

Art. No. 318100

EAN Number
5702663181007



TMS 516 SE P-EU

Art. No. 318127

EAN Number
5702663181274



TMS 508 SE P-EU

Art. No. 318106

EAN Number
5702663181069



TMS 524 SE P-EU

Art. No. 318132

EAN Number
5702663181328



TMS 512 SE P-EU

Art. No. 318121

EAN Number
5702663181212



TMS 532 SE P-EU

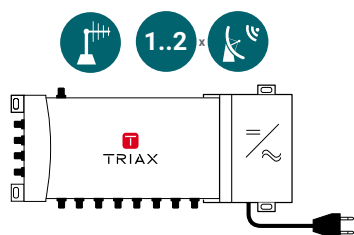
Art. No. 318142

EAN Number
5702663181427



TRIAX® multiswitch solutions

1 position



6 8 12 16 24 32

Legend:



6 8 12 16 24 28 32

Numbers of subscriber outputs from the multiswitch

Type:	TMS 506 SE P-EU Stand-alone	TMS 508 SE P-EU Stand-alone	TMS 512 SE P-EU Stand-alone	TMS 516 SE P-EU Stand-alone	TMS 524 SE P-EU Stand-alone	TMS 532 SE P-EU Stand-alone
Art. no.	318100	318106	318121	318127	318132	318142
CHARACTERISTICS						
LNB current max.	500mA	500mA	500mA	500mA	500mA	500mA
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	passive	passive	passive	passive	passive	passive
Switch commands	13/18 V, 0/22 kHz					
FREQUENCY						
Frequency range SAT	950...2400MHz					
Frequency range TER	5...862MHz					
GAIN						
Gain - SAT (5 dB slope)	-2...+3 ±2dB	-2...+3 ±2dB	-2...+3 ±2dB	-2...+3 ±2dB	-2...+3 ±2dB	-2...+3 ±2dB
Gain - TER [47-862 MHz]	-15 ±3dB	-15 ±3dB	-33 ±3dB	-33 ±3dB	-33 ±3dB	-33 ±3dB
ISOLATION						
Cross polarisation H/V	typ. 30dB					
Isolation SAT to TER	typ. 30dB					
Isolation TER to SAT	typ. 30dB					
RETURN LOSS						
Return loss SAT inputs	>10dB					
Return loss SAT outputs	>10dB					
Return loss TER inputs	>10dB					
Return loss TER outputs	>10dB					
ELECTRICAL						
Impedance	75Ω					
OPERATIONAL						
Control LEDs	Green LED (Power)					
Max. current @ 13 V/18V	120mA	120mA	120mA	120mA	120mA	120mA
Max. current to outputs (supplied by set top box)	27mA	27mA	38mA	38mA	29mA	29mA
Power Consumption (typ.)	0,5W	0,5W	0,5W	0,5W	0,5W	0,5W
Temperature range	0...+55 °C°C	0...+55 °C°C	0...+55 °C°C	0...+55 °C°C	0...+55 °C°C	0...+55 °C°C
CONNECTORS						
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow					
Connector Type	F-female					
DC input connector	N/A (Built-in PSU)					
Number of inputs	5	5	5	5	5	5
Subscriber outputs	6	8	12	16	24	32
MECHANICAL						
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	110mm	110mm	110mm	110mm	140mm	140mm
Width (mm)	222mm	222mm	310mm	310mm	324mm	324mm
Height (mm)	57mm	57mm	57mm	57mm	63mm	63mm
Material	steel metal cabinet					
Packing QTY	1	1	1	1	1	1

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX

TRIAX[®] multiswitch solutions

standalone, passive TER, EU mains plug



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



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- EU mains plug: where mains power is available.



TMS 908 SE P-EU

Art. No. 318208

EAN Number
5702663182080



TMS 924 SE P-EU

Art. No. 318236

EAN Number
5702663182363



TMS 912 SE P-EU

Art. No. 318216

EAN Number
5702663182165



TMS 916 SE P-EU

Art. No. 318226

EAN Number
5702663182264



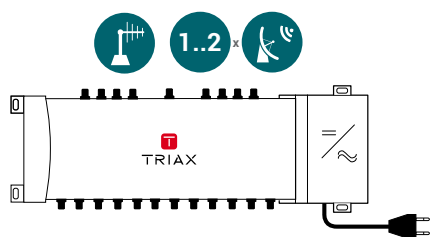
TMS 932 SE P-EU

Art. No. 318246

EAN Number
5702663182462

TRIAX® multiswitch solutions

2 positions



8 12 16 24 32

Type:	TMS 908 SE P-EU	TMS 912 SE P-EU	TMS 916 SE P-EU	TMS 924 SE P-EU	TMS 932 SE P-EU
	Stand-alone	Stand-alone	Stand-alone	Stand-alone	Stand-alone
Art. no.	318208	318216	318226	318236	318246
CHARACTERISTICS					
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	passivedBμV	passivedBμV	passivedBμV	passivedBμV	passivedBμV
Switch commands	13/18 V, 0/22 kHz, DiSEqC 1.0				
FREQUENCY					
Frequency range SAT	950...2400MHz				
Frequency range TER	5...862MHz				
GAIN					
Gain - SAT (with 5 dB slope)	-5...+2 ±2dB	-2...+2 ±2dB	-2...+2 ±2dB	-2...+2 ±2dB	-2...+2 ±2dB
Gain - TER [47-862 MHz]	-15 ±3dB	-32 ±3dB	-32 ±3dB	-32 ±3dB	-32 ±3dB
ISOLATION					
Isolation cross polarisation H/V	typ. 30dB				
Isolation SAT to TER	typ. 30dB				
RETURN LOSS					
Return loss SAT inputs	>10dB				
Return loss SAT outputs	>10dB				
Return loss TER inputs	>10dB				
Return loss TER outputs	>10dB				
ELECTRICAL					
Impedance	75Ω				
OPERATIONAL					
Control LEDs	Green LED (Power)				
Max. current to each output (supplied by set top box)	35mA	43mA	43mA	43mA	43mA
Power Consumption (typ.)	0,5W	0,5W	0,5W	0,5W	0,5W
Temperature range	0...+55 °C	0...+55 °C	0...+55 °C	0...+55 °C	0...+55 °C
CONNECTORS					
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow				
Connector Type	F-female				
DC input connector	N/A (Built-in PSU)				
Number of inputs	9	9	9	9	9
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	110mm	198mm	198mm	198mm	198mm
Width (mm)	270mm	272mm	272mm	390mm	390mm
Height (mm)	63mm	63mm	63mm	63mm	63mm
Material	steel metal cabinet				
Packing QTY	1	1	1	1	1

- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX

TRIAX[®] multiswitch solutions

standalone, passive TER, EU mains plug



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



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- The best solution for installations of between 6 and 32 satellite receivers within relatively short distance from each other and the switch.
- Active Terrestrial: for when you need a terrestrial TV input alongside the satellite signal.
- EU mains plug: where mains power is available.



TMS 1308 SE P-EU

Art. No. 318306

EAN Number
5702663183063



TMS 1312 SE P-EU

Art. No. 318314

EAN Number
5702663183148



TMS 1316 SE P-EU

Art. No. 318322

EAN Number
5702663183223



TMS 1324 SE P-EU

Art. No. 318330

EAN Number
5702663183308



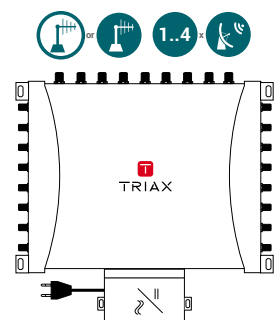
TMS 1332 SE P-EU

Art. No. 318338

EAN Number
5702663183384

TRIAX® multiswitch solutions

3 positions



6 8 12 16 24 32

Legend:



6 8 12 16 24 28 32

Numbers of subscriber outputs from the multiswitch

Type:	TMS 1308 SE P-EU	TMS 1312 SE P-EU	TMS 1316 SE P-EU	TMS 1324 SE P-EU	TMS 1332 SE P-EU
Art. no.	318306	318314	318322	318330	318338
CHARACTERISTICS					
Max. output level SAT @ -35 dB IMD3	100dBµV	100dBµV	100dBµV	100dBµV	100dBµV
Max. output level TER @ 60dB IMD3	passivedBµV	passivedBµV	passivedBµV	passivedBµV	passivedBµV
Switch commands	13/18 V, 0/22 kHz, DiSEqC 1.0				
FREQUENCY					
Frequency range SAT	950...2400MHz	950...2400MHz	950...2400MHz	950...2400MHz	950...2400MHz
Frequency range TER	5...862MHz	5...862MHz	5...862MHz	5...862MHz	5...862MHz
LOSS					
Insertion loss - SAT	-2...+2 ±2dB	-3...0 ±2dB	-3...0 ±2dB	-5...-2 ±2dB	-5...-2 ±2dB
Insertion loss - TER	-30 ±3dB	-30 ±3dB	-30 ±3dB	-33 ±3dB	-33 ±3dB
ISOLATION					
Isolation cross polarisation H/V				typ. 30dB	
Isolation SAT to TER				typ. 30dB	
RETURN LOSS					
Return loss SAT inputs				>10dB	
Return loss SAT outputs				>10dB	
Return loss TAP outputs				>10dB	
Return loss TER inputs				>10dB	
Return loss TER outputs				>10dB	
ELECTRICAL					
Impedance				75Ω	
OPERATIONAL					
Control LEDs				Green LED (Power)	
Max. current to each output (supplied by set top box)	68mA	68mA	68mA	68mA	68mA
AC Supply voltage				90...264 / 50...60HzVAC	
Power Consumption (typ.)				0,5W	
Temperature range				0...+55°C	
CONNECTORS					
Colourcoding on inputs				VL=Black, VH=Red, HL=Green, HH=Yellow	
Connector Type				F-female	
DC input connector				N/A (Built-in PSU)	
Number of inputs	13	13	13	13	13
Number of outputs	13	13	13	13	13
Number of trunk inputs	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER
Number of trunk outputs	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER
Power connector	EU Plug	EU Plug	EU Plug	EU Plug	EU Plug
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	286mm	286mm	286mm	286mm	286mm
Width (mm)	272mm	272mm	272mm	395mm	395mm
Height (mm)	63mm	63mm	63mm	63mm	63mm
Material				steel metal cabinet	
Packing QTY	1	1	1	1	1

TERRESTRIAL RECEPTION
SATELLITE & FIBRE RECEPTION
CABLE TV (CATV)
HEADENDS CAS SYSTEM MODULATORS
CABLES & CONNECTORS
OUTLETS TAPS & SPLITTER
INHOUSE CONNECTIVITY
SURVEILLANCE (CCTV)
INSTRUMENTS TOOLS & CABINETS
TECHNICAL APPENDIX

TRIAX[®] multiswitch solutions

standalone, passive TER, EU mains plug



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features - Standalone switches

- The best solution for installations of between 6 and 32 satellite receivers within relatively short distance from each other and the switch.
- Active Terrestrial: for when you need a terrestrial TV input alongside the satellite signal.
- EU mains plug: where mains power is available.



TMS 1708 SE P-EU

Art. No. 318402

EAN Number
5702663184022



TMS 1724 SE P-EU

Art. No. 318430

EAN Number
5702663184305



TMS 1712 SE P-EU

Art. No. 318414

EAN Number
5702663184145



TMS 1732 SE P-EU

Art. No. 318438

EAN Number
5702663184381



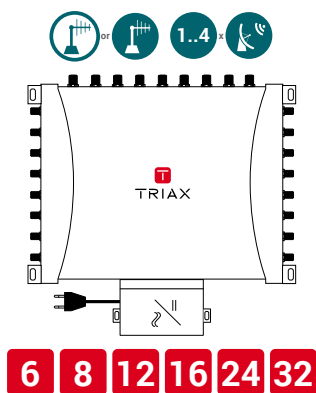
TMS 1716 SE P-EU

Art. No. 318422

EAN Number
5702663184220

TRIAX® multiswitch solutions

4 positions



Legend:



1...4 satellite positions

6 8 12 16 24 28 32

Numbers of subscriber outputs from the multiswitch

- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX

Type:	TMS 1708 SE P-EU Stand-alone	TMS 1712 SE P-EU Stand-alone	TMS 1716 SE P-EU Stand-alone	TMS 1724 SE P-EU Stand-alone	TMS 1732 SE P-EU Stand-alone
Art. no.	318402	318414	318422	318430	318438
CHARACTERISTICS					
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	passive	passive	passive	passive	passived
Switch commands	13/18 V, 0/22 kHz, DiSEqC 1.0				
FREQUENCY					
Frequency range SAT	950...2400MHz				
Frequency range TER	5...862MHz				
GAIN					
Gain - SAT (with 5 dB slope)	-2...+2 ±2dB	-3...0 ±2dB	-3...0 ±2dB	-5...-2 ±2dB	-5...-2 ±2dB
Gain - TER [47-862 MHz]	-30 ±3dB	-30 ±3dB	-30 ±3dB	-33 ±3dB	-33 ±3dB
ISOLATION					
Isolation cross polarisation H/V	typ. 30dB	typ. 30dB	typ. 30dB	typ. 30dB	typ. 30dB
Isolation SAT to TER	typ. 30dB	typ. 30dB	typ. 30dB	typ. 30dB	typ. 30dB
RETURN LOSS					
Return loss SAT inputs	>10dB				
Return loss SAT outputs	>10dB				
Return loss TER inputs	>10dB				
Return loss TER outputs	>10dB				
ELECTRICAL					
Impedance	75Ω				
OPERATIONAL					
Control LEDs	Green LED (Power)				
Max. current to each output (supplied by set top box)	68mA	68mA	68mA	68mA	68mA
Power Consumption (typ.)	6,5W	5,5W	5,5W	5,5W	5,5W
Temperature range	0...+55 °C	0...+55 °C	0...+55 °C	0...+55 °C	0...+55 °C
CONNECTORS					
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow				
Connector Type	F-female	F-female	F-female	F-female	F-female
DC input connector	N/A (Built-in PSU)				
Number of inputs	17	17	17	17	17
Number of outputs	17	17	17	17	17
Number of trunk inputs	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER
Number of trunk outputs	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	286mm	286mm	286mm	286mm	286mm
Width (mm)	272mm	272mm	272mm	395mm	395mm
Height (mm)	63mm	63mm	63mm	63mm	63mm
Material	steel metal cabinet				
Packing QTY	1	1	1	1	1

TRIAX[®] multiswitch solutions

standalone, passive TER, built in PSU, EU mains plug



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features - Standalone switches

- The best solution for installations of between 6 and 32 satellite receivers within relatively short distance from each other and the switch.
- Active Terrestrial: for when you need a terrestrial TV input alongside the satellite signal.
- EU mains plug: where mains power is available.

TMS 5x4 P - Stand alone 4SAT+1TER+PSU / 4out

Art. No. 300324

EAN Number
5702663003248



TMS 5x12P - Stand alone 4SAT+1TER+PSU / 12out

Art. No. 300322

EAN Number
5702663003224



TMS 5x6P - Stand alone 4SAT+1TER+PSU / 6out

Art. No. 300326

EAN Number
5702663003262



TMS 5x16P - Stand alone 4SAT+1TER+PSU / 16out

Art. No. 300327

EAN Number
5702663003279



TMS 5x8P - Stand alone 4SAT+1TER+PSU / 8out

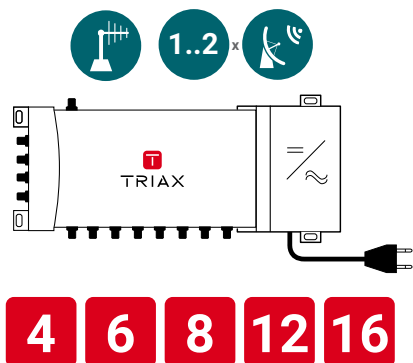
Art. No. 300328

EAN Number
5702663003286



TRIAX[®] multiswitch solutions

1 position



Legend:



1...4 satellite positions

6 8 12 16 24 28 32

Numbers of subscriber outputs from the multiswitch

- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX

Type:	TMS 5x4 P Stand-alone	TMS 5x6P Stand alone	TMS 5x8P Stand alone	TMS 5x12P Stand alone	TMS 5x16P Stand alone
Art. no.	300324	300326	300328	300322	300327
CHARACTERISTICS					
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	88dBμV	85dBμV	85dBμV	85dBμV	85dBμV
Switch commands	13/18 V, 0/22 kHz				
FREQUENCY					
Frequency range SAT	950-2150MHz				
Frequency range TER	47-862MHz				
GAIN					
Gain - SAT (5 dB slope)	- 4dB		-5dB		
Gain - TER [47-862 MHz]	4.0dB	3.0dB	3.0dB	0	4.0dB
ISOLATION					
Cross polarisation H/V	25dB	28dB	28dB	25dB	25dB
Isolation out-out SAT	30dB	35dB	35dB	35dB	35dB
Isolation out-out TER	28dB	28dB	28dB	28dB	28dB
Isolation SAT to TER	22dB	28dB	28dB	22dB	22dB
Isolation TER to SAT	22dB	25dB	25dB	22dB	22dB
RETURN LOSS					
Return loss SAT inputs	10dB	12dB	12dB	11dB	10dB
Return loss SAT outputs	8dB	7dB	7dB	8dB	8dB
Return loss TER inputs	10dB	11dB	11dB	11dB	10dB
Return loss TER outputs	8dB	7dB	7dB	8dB	8dB
ELECTRICAL					
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL					
Max. current pass per F-connector	600mA	600mA	600mA	600mA	600mA
Temperature range	-20...+55°C				
CONNECTORS					
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow				
Connector Type	F-female				
Number of inputs	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER
Subscriber outputs	4	6	8	12	16
MECHANICAL					
Depth (mm)	103mm	103mm	103mm	103mm	103mm
Width (mm)	359mm	359mm	359mm	459mm	559mm
Height (mm)	71mm	71mm	71mm	71mm	71mm
Packing QTY	1	1	1	1	1

TRIAX[®] multiswitch solutions

standalone, passive TER, powered by receiver



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features - Standalone switches

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TMS 508 SE P-R

Art. No. 318110

EAN Number
5702663181106



TMS 516 SE P-R

Art. No. 318126

EAN Number
5702663181267



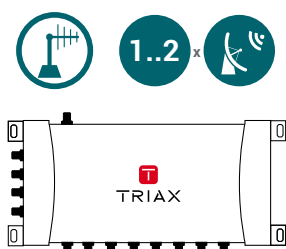
TMS 512 SE P-R

Art. No. 318118

EAN Number
5702663181182

TRIAX[®] multiswitch solutions

1 position



Legend:



Type:	TMS 508 SE P-R Stand-alone	TMS 512 SE P-R Stand-alone	TMS 516 SE P-R Stand-alone
Art. no.	318110	318118	318126
CHARACTERISTICS			
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	passive	passive	passive
Switch commands		13/18 V, 0/22 kHz	
FREQUENCY			
Frequency range SAT		950...2400MHz	
Frequency range TER		5...862MHz	
GAIN			
Gain - SAT (5 dB slope)	-2...+3 ±2dB	-2...+3 ±2dB	-2...+3 ±2dB
Gain - TER [47-862 MHz]	-15 ±3dB	-33 ±3dB	-33 ±3dB
ISOLATION			
Cross polarisation H/V		typ. 30dB	
Isolation SAT to TER		typ. 30dB	
Isolation TER to SAT		typ. 30dB	
RETURN LOSS			
Return loss SAT inputs		>10dB	
Return loss SAT outputs		>10dB	
Return loss TER inputs		>10dB	
Return loss TER outputs		>10dB	
ELECTRICAL			
Impedance		75Ω	
OPERATIONAL			
Control LEDs		Green LED (Power)	
Max. current to outputs (supplied by set top box)	27mA	38mA	38mA
Temperature range	-20... 70 °C°C	-20... 70 °C°C	-20... 70 °C°C
CONNECTORS			
Colourcoding on inputs		VL=Black, VH=Red, HL=Green, HH=Yellow	
Connector Type		F-female	
DC input connector		N/A (power is sourced from STB only)	
Number of inputs	5	5	5
Subscriber outputs	8	12	16
MECHANICAL			
Colour	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	110mm	110mm	110mm
Width (mm)	130mm	215mm	215mm
Height (mm)	45mm	45mm	45mm
Material	steel metal cabinet	steel metal cabinet	steel metal cabinet
Packing QTY	1	1	1

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX

TRIAX[®] multiswitch solutions

standalone, passive TER, powered by receiver



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features - Standalone switches

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- EU mains plug: where mains power is available.



TMS 908 SE P-R

Art. No. 318210

EAN Number
5702663182103



TMS 916 SE P-R

Art. No. 318228

EAN Number
5702663182288



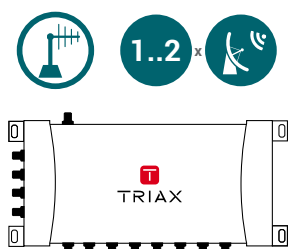
TMS 912 SE P-R

Art. No. 318218

EAN Number
5702663182189

TRIAX[®] multiswitch solutions

2 positions



Legend:



Type:	TMS 908 SE P-R Stand-alone	TMS 912 SE P-R Stand-alone	TMS 916 SE P-R Stand-alone
Art. no.	318210	318218	318228
CHARACTERISTICS			
Max. output level SAT @ -35 dB IMD3	100dB μ V	100dB μ V	100dB μ V
Max. output level TER @ 60dB IMD3	passivedB μ V	passivedB μ V	passivedB μ V
Switch commands	13/18 V, 0/22 kHz, DiSEqC 1.0		
FREQUENCY			
Frequency range SAT	950...2400MHz		
Frequency range TER	5...862MHz		
LOSS			
Insertion loss - SAT	-5...+2 \pm 2dB	-2...+2 \pm 2dB	-2...+2 \pm 2dB
Insertion loss - TER	-15 \pm 3dB	-32 \pm 3dB	-32 \pm 3dB
ISOLATION			
Isolation cross polarisation H/V	typ. 30dB		
Isolation SAT to TER	typ. 30dB		
RETURN LOSS			
Return loss SAT inputs	>10dB		
Return loss SAT outputs	>10dB		
Return loss TAP outputs	>10dB		
Return loss TER inputs	>10dB		
Return loss TER outputs	>10dB		
ELECTRICAL			
Impedance	75 Ω		
OPERATIONAL			
Control LEDs	Green LED (Power)		
Max. current to each output (supplied by set top box)	56mA	56mA	56mA
AC Supply voltage	90...264 / 50...60HzVAC	90...264 / 50...60HzVAC	90...264 / 50...60HzVAC
Temperature range	-20... 70°C	-20... 70°C	-20... 70°C
CONNECTORS			
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow		
Connector Type	F-female		
DC input connector	N/A (power is sourced from STB only)		
Number of inputs	9	9	9
Subscriber outputs	8	12	16
MECHANICAL			
Colour	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	110mm	198mm	198mm
Width (mm)	230mm	272mm	272mm
Height (mm)	63mm	63mm	63mm
Material	steel metal cabinet		
Packing QTY	1	1	1

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX[®] multiswitch solutions

cascadable, active TER, for external PSU



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features - Cascadable switches

- In contrast to standalone multiswitches, a cascadable system can be extended to become a solution covering a very large number of end-users /satellite receivers.
- If your building layout means that users live on different floors, resulting in variable cable lengths from the multiswitch to the end-user apartment, a cascadable

multiswitch installation is the best solution. Cascadable means that every multiswitch has its standard input from the LNBS, but furthermore has outputs, where the LNB signal can be conveyed further down the building floors to additional multiswitches.



TMS 508 CE A

Art. No. 318112

EAN Number
5702663181120



TMS 524 CE A

Art. No. 318138

EAN Number
5702663181380



TMS 512 CE A

Art. No. 318120

EAN Number
5702663181205



TMS 532 CE A

Art. No. 318148

EAN Number
5702663181489



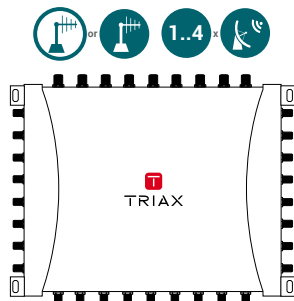
TMS 516 CE A

Art. No. 318128

EAN Number
5702663181281

TRIAX[®] multiswitch solutions

1 position



8 12 16 24 28 32

Legend:



6 8 12 16 24 28 32

Numbers of subscriber outputs from the multiswitch

Type:	TMS 508 CE A Cascadable	TMS 512 CE A Cascadable	TMS 516 CE A Cascadable	TMS 524 CE A Cascadable	TMS 532 CE A Cascadable
Art. no.	318112	318120	318128	318138	318148
CHARACTERISTICS					
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	84dBμV	84dBμV	84dBμV	91dBμV	91dBμV
Switch commands	13/18 V, 0/22 kHz				
FREQUENCY					
Frequency range SAT	950...2400MHz				
Frequency range TER	40...862MHz				
GAIN					
Gain - SAT (with 5 dB slope)	-4...0 ±2dB	-4...0 ±2dB	-4...0 ±2dB	-4...0 ±2dB	-4...0 ±2dB
Gain - TER [47-862 MHz]	-2 ±2dB	-3 ±3dB	-3 ±3dB	-3 ±3dB	-3 ±3dB
LOSS					
Through loss - Trunk SAT	-2...-4 ±2dB	-3 ±2dB	-3 ±2dB	-2...-6 ±2dB	-2...-6 ±2dB
Through loss - Trunk TER	-3 ±2dB	-2 ±2dB	-3 ±2dB	-2...-6 ±2dB	-2...-6 ±2dB
ISOLATION					
Cross polarisation H/V	typ. 30dB				
Isolation SAT to TER	typ. 30dB				
RETURN LOSS					
Return loss SAT inputs	>10dB				
Return loss SAT outputs	>10dB				
Return loss TER inputs	>10dB				
Return loss TER outputs	>10dB				
ELECTRICAL					
Impedance	75Ω				
OPERATIONAL					
Control LEDs	Green LED (Power)				
Max. current to each output (supplied by set top box)	35mA	35mA	35mA	29mA	29mA
Temperature range	-20... 70°C				
CONNECTORS					
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow				
Connector Type	F-female				
DC input connector	5.5 / 2.1 mm				
Number of inputs	5	5	5	5	5
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	140mm	140mm	140mm	140mm	140mm
Width (mm)	140mm	220mm	220mm	240mm	240mm
Height (mm)	63mm	63mm	63mm	63mm	63mm
Material	steel metal cabinet				
Packing QTY	1	1	1	1	1

TERRESTRIAL RECEPTION
SATELLITE & FIBRE RECEPTION
CABLE TV (CATV)
HEADENDS CAS SYSTEM MODULATORS
CABLES & CONNECTORS
OUTLETS TAPS & SPLITTER
INHOUSE CONNECTIVITY
SURVEILLANCE (CCTV)
INSTRUMENTS TOOLS & CABINETS
TECHNICAL APPENDIX

TRIAX[®] multiswitch solutions

cascadable, active TER, for external PSU



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features - Cascadable switches

- In contrast to standalone multiswitches, a cascadable system can be extended to become a solution covering a very large number of end-users /satellite receivers.
- If your building layout means that users live on different floors, resulting in variable cable lengths from the multiswitch to the end-user apartment, a cascadable

multiswitch installation is the best solution. Cascadable means that every multiswitch has its standard input from the LNBS, but furthermore has outputs, where the LNB signal can be conveyed further down the building floors to additional multiswitches.



TMS 908 CE A

Art. No. 318211

EAN Number
5702663182110



TMS 924 CE A

Art. No. 318240

EAN Number
5702663182400



TMS 912 CE A

Art. No. 318220

EAN Number
5702663182202



TMS 932 CE A

Art. No. 318250

EAN Number
5702663182509



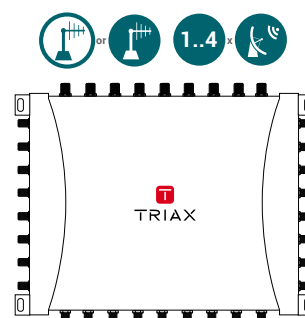
TMS 916 CE A

Art. No. 318230

EAN Number
5702663182301

TRIAX[®] multiswitch solutions

2 positions



8 12 16 24 28 32

Type:	TMS 908 CE A Cascadable	TMS 912 CE A Cascadable	TMS 916 CE A Cascadable	TMS 924 CE A Cascadable	TMS 932 CE A Cascadable
Art. no.	318211	318220	318230	318240	318250
CHARACTERISTICS					
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	88dBμV	88dBμV	88dBμV	90dBμV	90dBμV
Switch commands	13/18 V, 0/22 kHz, DiSEqC 1.0				
FREQUENCY					
Frequency range SAT	950...2400MHz				
Frequency range TER	40...862MHz				
GAIN					
Gain - SAT (with 5 dB slope)	-0...+2 ±2dB	-2...0 ±2dB	-2...0 ±2dB	-2...0 ±2dB	-2...0 ±2dB
Gain - TER [47-862 MHz]	-2 ±2dB	-2 ±2dB	-2 ±2dB	-2 ±2dB	-2 ±2dB
LOSS					
Through loss - Trunk SAT	-1 ±1dB	-2 ±2dB	-2 ±2dB	-2...-4 ±2dB	-2...-4 ±2dB
Through loss - Trunk TER	-2 ±2dB	-2 ±2dB	-2 ±2dB	-2 ±4dB	-2 ±4dB
ISOLATION					
Isolation cross polarisation H/V	typ. 30dB				
Isolation SAT to TER	typ. 30dB				
RETURN LOSS					
Return loss SAT inputs	>10dB				
Return loss SAT outputs	>10dB				
Return loss TER inputs	>10dB				
Return loss TER outputs	>10dB				
ELECTRICAL					
Impedance	75Ω				
OPERATIONAL					
Control LEDs	Green LED (Power)				
Temperature range	-20... 70 °C°C				
CONNECTORS					
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow				
Connector Type	F-female				
DC input connector	5.5 / 2.1 mm				
Number of inputs	9	9	9	9	9
Number of outputs	9	9	9	9	9
Number of trunk inputs	2 SAT, 1 TER	2 SAT, 1 TER	2 SAT, 1 TER	2 SAT, 1 TER	2 SAT, 1 TER
Number of trunk outputs	2 SAT, 1 TER	2 SAT, 1 TER	2 SAT, 1 TER	2 SAT, 1 TER	2 SAT, 1 TER
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	198mm	198mm	198mm	198mm	198mm
Width (mm)	124mm	185mm	185mm	302mm	302mm
Height (mm)	63mm	63mm	63mm	63mm	63mm
Material	steel metal cabinet				
Packing QTY	1	1	1	1	1

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX[®] multiswitch solutions

cascadable, active TER, for external PSU

- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX



Common features - Cascadable switches

- In contrast to standalone multiswitches, a cascadable system can be extended to become a solution covering a very large number of end-users /satellite receivers.
- If your building layout means that users live on different floors, resulting in variable cable lengths from the multiswitch to the end-user apartment, a cascadable

multiswitch installation is the best solution. Cascadable means that every multiswitch has its standard input from the LNBS, but furthermore has outputs, where the LNB signal can be conveyed further down the building floors to additional multiswitches.



TMS 1308 CE A

Art. No. 318312

EAN Number
5702663183124



TMS 1324 CE A

Art. No. 318336

EAN Number
5702663183360



TMS 1312 CE A

Art. No. 318320

EAN Number
5702663183209



TMS 1332 CE A

Art. No. 318344

EAN Number
5702663183445



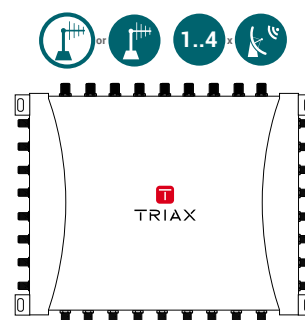
TMS 1316 CE A

Art. No. 318328

EAN Number
5702663183285

TRIAX[®] multiswitch solutions

3 positions



8 12 16 24 28 32

Type:	TMS 1308 CE A	TMS 1312 CE A	TMS 1316 CE A	TMS 1324 CE A	TMS 1332 CE A
	Cascadable	Cascadable	Cascadable	Cascadable	Cascadable
Art. no.	318312	318320	318328	318336	318344
CHARACTERISTICS					
Max. output level SAT @ -35 dB IMD3	105dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	88dBμV	90dBμV	90dBμV	90dBμV	90dBμV
Switch commands	13/18 V, 0/22 kHz, DiSEqC 1.0				
FREQUENCY					
Frequency range SAT	950...2400MHz				
Frequency range TER	5...862MHz				
GAIN					
Gain - SAT (with 5 dB slope)	-2...+2 ±2dB	-3...0 ±2dB	-3...0 ±2dB	-5...-2 ±2dB	-5...-2 ±2dB
Gain - TER [47-862 MHz]	-2...+2 ±2dB	-3 ±3dB	-3 ±3dB	-3 ±3dB	-3 ±3dB
LOSS					
Through loss - Trunk SAT	-2 ±2dB	-2 ±2dB	-2 ±2dB	-2...-5 ±2dB	-2...-5 ±2dB
Through loss - Trunk TER	-2 ±2dB	-2 ±2dB	-2 ±2dB	-4 ±2dB	-4 ±2dB
ISOLATION					
Isolation cross polarisation H/V	typ. 30dB				
Isolation SAT to TER	typ. 30dB				
RETURN LOSS					
Return loss SAT inputs	>10dB				
Return loss SAT outputs	>10dB				
Return loss TER inputs	>10dB				
Return loss TER outputs	>10dB				
ELECTRICAL					
Impedance	75Ω				
OPERATIONAL					
Control LEDs	Green LED (Power)				
DC Operating voltage	15VDC				
Max. current to each output (supplied by set top box)	68mA				
Temperature range	-20... 70 °C°C				
CONNECTORS					
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow				
Connector Type	F-female				
DC input connector	5.5 / 2.1 mm				
Number of inputs	13	13	13	13	13
Number of outputs	13	13	13	13	13
Number of trunk inputs	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER
Number of trunk outputs	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	286mm	286mm	286mm	286mm	286mm
Width (mm)	186mm	185mm	185mm	304mm	304mm
Height (mm)	63mm	63mm	63mm	63mm	63mm
Material	steel metal cabinet				
Packing QTY	1	1	1	1	1
Remarks	Made in Germany				

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX

TRIAX[®] multiswitch solutions

cascadable, active TER, for external PSU



TERRESTRIAL
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SATELLITE
& FIBRE
RECEPTION

CABLE TV
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HEADENDS
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MODULATORS

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SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



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TMS 1708 CE A

Art. No. 318412

EAN Number
5702663184121



TMS 1724 CE A

Art. No. 318436

EAN Number
5702663184367



TMS 1712 CE A

Art. No. 318420

EAN Number
5702663184206



TMS 1732 CE A

Art. No. 318444

EAN Number
5702663184442



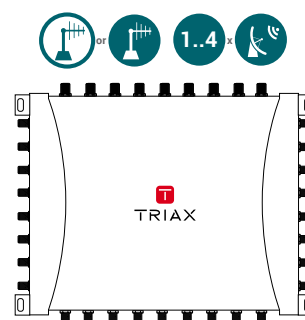
TMS 1716 CE A

Art. No. 318428

EAN Number
5702663184282

TRIAX[®] multiswitch solutions

4 positions



8 12 16 24 28 32

Type:	TMS 1708 CE A	TMS 1712 CE A	TMS 1716 CE A	TMS 1724 CE A	TMS 1732 CE A
	Cascadable	Cascadable	Cascadable	Cascadable	Cascadable
Art. no.	318412	318420	318428	318436	318444
CHARACTERISTICS					
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	88dBμV	88dBμV	88dBμV	90dBμV	90dBμV
Switch commands	13/18 V, 0/22 kHz, DiSEqC 1.0				
FREQUENCY					
Frequency range SAT	950...2400MHz				
Frequency range TER	40...862MHz				
GAIN					
Gain - SAT (with 5 dB slope)	-2...+2 ±2dB	-3...0 ±2dB	-3...0 ±2dB	-5...-2 ±2dB	-5...-2 ±2dB
Gain - TER [47-862 MHz]	-2 ±2dB	-3 ±3dB	-3 ±3dB	-3 ±3dB	-3 ±3dB
LOSS					
Through loss - Trunk SAT	-2 ±2dB	-2 ±2dB	-2 ±2dB	-2...-5 ±2dB	-2...-5 ±2dB
Through loss - Trunk TER	-2 ±2dB	-2 ±2dB	-2 ±2dB	-4 ±2dB	-4 ±2dB
ISOLATION					
Isolation cross polarisation H/V	typ. 30dB				
Isolation SAT to TER	typ. 30dB				
RETURN LOSS					
Return loss SAT inputs	>10dB				
Return loss SAT outputs	>10dB				
Return loss TER inputs	>10dB				
Return loss TER outputs	>10dB				
ELECTRICAL					
Impedance	75Ω				
OPERATIONAL					
Control LEDs	Green LED (Power)				
Max. current to each output (supplied by set top box)	68mA				
Temperature range	-20... 70°C				
CONNECTORS					
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow				
Connector Type	F-female				
DC input connector	5.5 / 2.1 mm				
Number of inputs	17	17	17	17	17
Number of outputs	17	17	17	17	17
Number of trunk inputs	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER
Number of trunk outputs	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	286mm	286mm	286mm	286mm	286mm
Width (mm)	186mm	185mm	185mm	304mm	304mm
Height (mm)	63mm	63mm	63mm	63mm	63mm
Material	steel metal cabinet				
Packing QTY	1	1	1	1	1

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX

TRIAX[®] multiswitch solutions

cascadable, active TER, for external PSU



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
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SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features - Cascadable switches

- In contrast to standalone multiswitches, a cascadable system can be extended to become a solution covering a very large number of end-users /satellite receivers.
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multiswitch installation is the best solution. Cascadable means that every multiswitch has its standard input from the LNBs, but furthermore has outputs, where the LNB signal can be conveyed further down the building floors to additional multiswitches.



TMS 9x8C - Casc.
8SAT+1TER / 8out

Art. No. 300368

EAN Number
5702663003682



TMS 9x20C - Casc.
8SAT+1TER / 20out

Art. No. 300388

EAN Number
5702663003880



TMS 9x12C - Casc.
8SAT+1TER / 12out

Art. No. 300372

EAN Number
5702663003729



TMS 9x24C - Casc.
8SAT+1TER / 24out

Art. No. 300389

EAN Number
5702663003897



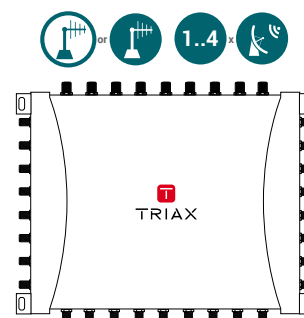
TMS 9x16C - Casc.
8SAT+1TER / 16out

Art. No. 300376

EAN Number
5702663003767

TRIAX[®] multiswitch solutions

4 positions



8 12 16 24 28 32

Type:	TMS 9x8C Cascadable	TMS 9x12C Cascadable	TMS 9x16C Cascadable	TMS 9x20C Cascadable	TMS 9x24C Cascadable
Art. no.	300368	300372	300376	300388	300389
CHARACTERISTICS					
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	88dBμV	88dBμV	88dBμV	88dBμV	88dBμV
Switching	14V/18V - 14V/22kHz - 18V/22kHz - DiSeqC 2.0kHz				
FREQUENCY					
Frequency range SAT	950-2150MHz				
Frequency range TER	5-862 (active)MHz				
GAIN					
SAT (5 dB slope)	-3.0 to 2.0dB	-3.0 to 2.0dB	-3.0 to 2.0dB	-3.0 to 2.0dB	-3.0 to 2.0dB
TER [47-862 MHz]	-9dB	-9dB	-9dB	-9dB	-32dB
LOSS					
Insertion - trunkline SAT	4.0 (± 2.0)dB	4.0 (± 2.0)dB	6.0 (± 2.0)dB	7.0 (± 2.0)dB	7.0 (± 2.0)dB
Insertion - trunkline TER	5.0 (± 1.0)dB	5.0 (± 1.0)dB	5.0 (± 1.0)dB	5.0 (± 1.0)dB	5.0 (± 1.0)dB
ISOLATION					
Cross polarisation H/V	28dB				
Isolation LNB to LNB	35dB				
Isolation out-out SAT	30dB				
Isolation out-out TER	28dB				
Isolation SAT to TER	28dB				
Isolation TER to SAT	23dB				
RETURN LOSS					
Return loss SAT inputs	13dB				
Return loss SAT outputs	8dB				
Return loss TER inputs	11dB				
Return loss TER outputs	8dB				
ELECTRICAL					
Impedance	75Ω				
OPERATIONAL					
DC Operating voltage	15.0 ±1.0VDC				
Max. current per F-con.	500mA				
Temperature range	-20...+55°C				
CONNECTORS					
Colourcoding on inputs	Yes				
Connector Type	F-female				
Number of inputs	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER
Number of trunk inputs	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER
Number of trunk outputs	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER
Subscriber outputs	8	8	16	20	24
MECHANICAL					
Depth (mm)	240mm	240mm	240mm	240mm	240mm
Width (mm)	253mm	257mm	257mm	300mm	300mm
Height (mm)	51mm	51mm	51mm	51mm	51mm
Length (mm)	mm	mm	mm	mm	mm
Packing QTY	1	1	1	1	1

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX[®] multiswitch solutions

cascadable, passive TER, for external PSU



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

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CABLES &
CONNECTORS

OUTLETS
TAPS &
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(CCTV)

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TOOLS &
CABINETS

TECHNICAL
APPENDIX



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TMS 508 CE P

Art. No. 318114

EAN Number
5702663181144



TMS 524 CE P

Art. No. 318136

EAN Number
5702663181366



TMS 512 CE P

Art. No. 318122

EAN Number
5702663181229



TMS 532 CE P

Art. No. 318146

EAN Number
5702663181465



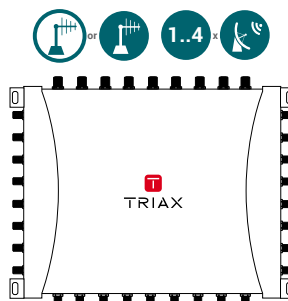
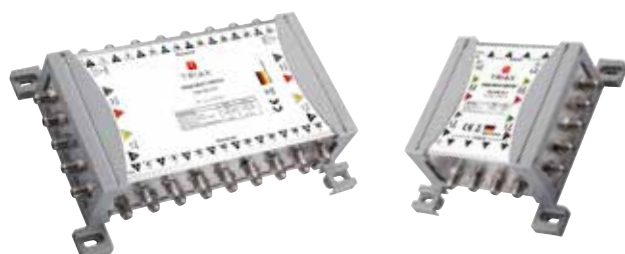
TMS 516 CE P

Art. No. 318129

EAN Number
5702663181298

TRIAX[®] multiswitch solutions

1 position



8 12 16 24 28 32

Type:	TMS 508 CE P Cascadable	TMS 512 CE P Cascadable	TMS 516 CE P Cascadable	TMS 524 CE P Cascadable	TMS 532 CE P Cascadable
Art. no.	318114	318122	318129	318136	318146
CHARACTERISTICS					
Max. output level SAT @ -35 dB	100dB μ V				
Max. output level TER @ 60dB	passive				
Switch commands	13/18 V, 0/22 kHz				
FREQUENCY					
Frequency range SAT	950...2400MHz				
Frequency range TER	5...862MHz				
GAIN					
Gain - SAT (with 5 dB slope)	-4...0 \pm 2dB	-4...0 \pm 2dB	-4...0 \pm 2dB	-4...0 \pm 2dB	-4...0 \pm 2dB
Gain - TER [47-862 MHz]	-15 \pm 3dB	-33 \pm 3dB	-33 \pm 3dB	-33 \pm 3dB	-33 \pm 3dB
LOSS					
Through loss - Trunk SAT	-2...-4 \pm 2dB	-3 \pm 2dB	-3 \pm 2dB	-2...-6 \pm 2dB	-2...-6 \pm 2dB
Through loss - Trunk TER	-3 \pm 2dB	-2 \pm 2dB	-3 \pm 2dB	-2...-6 \pm 2dB	-2...-6 \pm 2dB
ISOLATION					
Cross polarisation H/V	typ. 30dB				
Isolation SAT to TER	typ. 30dB				
RETURN LOSS					
Return loss SAT inputs	>10dB				
Return loss SAT outputs	>10dB				
Return loss TER inputs	>10dB				
Return loss TER outputs	>10dB				
ELECTRICAL					
Impedance	75 Ω				
OPERATIONAL					
Control LEDs	Green LED (Power)				
Max. current to each output (supplied by set top box)	35mA	27mA	27mA	29mA	29mA
Temperature range	-20... 70 $^{\circ}$ C	-20... 70 $^{\circ}$ C	-20... 70 $^{\circ}$ C	-20... 70 $^{\circ}$ C	-20... 70 $^{\circ}$ C
CONNECTORS					
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow				
Connector Type	F-female	F-female	F-female	F-female	F-female
DC input connector	5.5 / 2.1 mm	5.5 / 2.1 mm	5.5 / 2.1 mm	5.5 / 2.1 mm	5.5 / 2.1 mm
Number of inputs	5	5	5	5	5
Number of outputs	5	5	5	5	5
Number of trunk inputs	1 SAT, 1 TER	1 SAT, 1 TER	1 SAT, 1 TER	1 SAT, 1 TER	1 SAT, 1 TER
Number of trunk outputs	1 SAT, 1 TER	1 SAT, 1 TER	1 SAT, 1 TER	1 SAT, 1 TER	1 SAT, 1 TER
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	140mm	140mm	140mm	140mm	140mm
Width (mm)	140mm	220mm	220mm	240mm	240mm
Height (mm)	63mm	63mm	63mm	63mm	63mm
Material	steel metal cabinet				
Packing QTY	1	1	1	1	1

TERRESTRIAL RECEPTION
SATELLITE & FIBRE RECEPTION
CABLE TV (CATV)
HEADENDS CAS SYSTEM MODULATORS
CABLES & CONNECTORS
OUTLETS TAPS & SPLITTER
INHOUSE CONNECTIVITY
SURVEILLANCE (CCTV)
INSTRUMENTS TOOLS & CABINETS
TECHNICAL APPENDIX

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cascadable, passive TER, for external PSU



TERRESTRIAL
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SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
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APPENDIX



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TMS 908 CE P

Art. No. 318212

EAN Number
5702663182127



TMS 924 CE P

Art. No. 318242

EAN Number
5702663182424



TMS 912 CE P

Art. No. 318222

EAN Number
5702663182226



TMS 932 CE P

Art. No. 318252

EAN Number
5702663182523



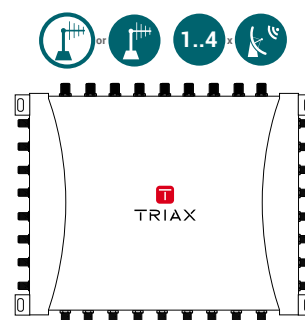
TMS 916 CE P

Art. No. 318232

EAN Number
5702663182325

TRIAX[®] multiswitch solutions

2 positions



8 12 16 24 28 32

Type:	TMS 908 CE P Cascadable	TMS 912 CE P Cascadable	TMS 916 CE P Cascadable	TMS 924 CE P Cascadable	TMS 932 CE P Cascadable
Art. no.	318212	318222	318232	318242	318252
CHARACTERISTICS					
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	passivedBμV	passivedBμV	passivedBμV	passivedBμV	passivedBμV
Switch commands	13/18 V, 0/22 kHz, DiSEqC 1.0				
FREQUENCY					
Frequency range SAT	950...2400MHz	950...2400MHz	950...2400MHz	950...2400MHz	950...2400MHz
Frequency range TER	5...862MHz	5...862MHz	5...862MHz	5...862MHz	5...862MHz
GAIN					
Gain - SAT (with 5 dB slope)	-0...+2 ±2dB	-2...0 ±2dB	-2...0 ±2dB	-2...0 ±2dB	-2...0 ±2dB
Gain - TER [47-862 MHz]	-26 ±2dB	-32 ±3dB	-32 ±3dB	-32 ±3dB	-32 ±3dB
LOSS					
Through loss - Trunk SAT	-1 ±1dB	-2 ±2dB	-2 ±2dB	-2...-4 ±2dB	-2...-4 ±2dB
Through loss - Trunk TER	-2 ±2dB	-2 ±2dB	-2 ±2dB	-2 ±4dB	-2 ±4dB
ISOLATION					
Cross polarisation H/V	typ. 30dB				
Isolation SAT to TER	typ. 30dB				
RETURN LOSS					
Return loss SAT inputs	>10dB				
Return loss SAT outputs	>10dB				
Return loss TER inputs	>10dB				
Return loss TER outputs	>10dB				
ELECTRICAL					
Impedance	75Ω				
OPERATIONAL					
Control LEDs	Green LED (Power)				
Max. current to each output (supplied by set top box)	43mA	43mA	43mA	43mA	43mA
Temperature range	-20... 70 °C°C	-20... 70 °C°C	-20... 70 °C°C	-20... 70 °C°C	-20... 70 °C°C
CONNECTORS					
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow				
Connector Type	F-female				
DC input connector	5.5 / 2.1 mm				
Number of inputs	9	9	9	9	9
Number of outputs	9	9	9	9	9
Number of trunk inputs	2 SAT, 1 TER	2 SAT, 1 TER	2 SAT, 1 TER	2 SAT, 1 TER	2 SAT, 1 TER
Number of trunk outputs	2 SAT, 1 TER	2 SAT, 1 TER	2 SAT, 1 TER	2 SAT, 1 TER	2 SAT, 1 TER
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	198mm	198mm	198mm	198mm	198mm
Width (mm)	124mm	185mm	185mm	302mm	302mm
Height (mm)	63mm	63mm	63mm	63mm	63mm
Material	steel metal cabinet				
Packing QTY	1	1	1	1	1

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX

TRIAX[®] multiswitch solutions

cascadable, passive TER, for external PSU



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features - Cascadable switches

- In contrast to standalone multiswitches, a cascadable system can be extended to become a solution covering a very large number of end-users /satellite receivers.
- If your building layout means that users live on different floors, resulting in variable cable lengths from the multiswitch to the end-user apartment, a cascadable

multiswitch installation is the best solution. Cascadable means that every multiswitch has its standard input from the LNBS, but furthermore has outputs, where the LNB signal can be conveyed further down the building floors to additional multiswitches.



TMS 1308 CE P

Art. No. 318310

EAN Number
5702663183100



TMS 1324 CE P

Art. No. 318334

EAN Number
5702663183346



TMS 1312 CE P

Art. No. 318318

EAN Number
5702663183186



TMS 1332 CE P

Art. No. 318342

EAN Number
5702663183421



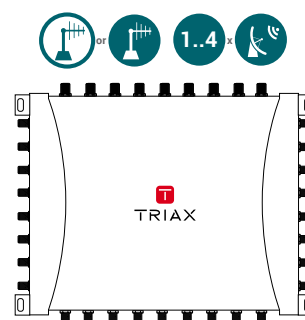
TMS 1316 CE P

Art. No. 318326

EAN Number
5702663183261

TRIAX® multiswitch solutions

3 positions



8 12 16 24 28 32

Type:	TMS 1308 CE P Cascadable	TMS 1312 CE P Cascadable	TMS 1316 CE P Cascadable	TMS 1324 CE P Cascadable	TMS 1332 CE P Cascadable
Art. no.	318310	318318	318326	318334	318342
CHARACTERISTICS					
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	passive	passive	passive	passive	passive
Switch commands	13/18 V, 0/22 kHz, DiSEqC 1.0				
FREQUENCY					
Frequency range SAT	950...2400MHz				
Frequency range TER	5...862MHz				
GAIN					
Gain - SAT (with 5 dB slope)	-2...+2 ±2dB	-3...0 ±2dB	-3...0 ±2dB	-5...-2 ±2dB	-5...-2 ±2dB
Gain - TER [47-862 MHz]	-30 ±3dB	-30 ±3dB	-30 ±3dB	-33 ±3dB	-33 ±3dB
LOSS					
Through loss - Trunk SAT	-2 ±2dB	-2 ±2dB	-2 ±2dB	-2...-5 ±2dB	-2...-5 ±2dB
Through loss - Trunk TER	-2 ±2dB	-2 ±2dB	-2 ±2dB	-4 ±2dB	-4 ±2dB
ISOLATION					
Isolation cross polarisation H/V	typ. 30dB				
Isolation SAT to TER	typ. 30dB				
RETURN LOSS					
Return loss SAT inputs	>10dB				
Return loss SAT outputs	>10dB				
Return loss TER inputs	>10dB				
Return loss TER outputs	>10dB				
ELECTRICAL					
Impedance	75Ω				
OPERATIONAL					
Control LEDs	Green LED (Power)				
DC Operating voltage	15VDC				
Max. current to each output (supplied by set top box)	68mA				
Temperature range	-20... 70 °C				
CONNECTORS					
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow				
Connector Type	F-female				
DC input connector	5.5 / 2.1 mm				
Number of inputs	13	13	13	13	13
Number of outputs	13	13	13	13	13
Number of trunk inputs	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER
Number of trunk outputs	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER	3 SAT, 1 TER
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	286mm	286mm	286mm	286mm	286mm
Width (mm)	186mm	185mm	185mm	304mm	304mm
Height (mm)	63mm	63mm	63mm	63mm	63mm
Material	steel metal cabinet				
Packing QTY	1	1	1	1	1
Remarks	Made in Germany				

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX[®] multiswitch solutions

cascadable, passive TER, for external PSU



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features - Cascadable switches

- In contrast to standalone multiswitches, a cascadable system can be extended to become a solution covering a very large number of end-users /satellite receivers.
- If your building layout means that users live on different floors, resulting in variable cable lengths from the multiswitch to the end-user apartment, a cascadable

multiswitch installation is the best solution. Cascadable means that every multiswitch has its standard input from the LNBS, but furthermore has outputs, where the LNB signal can be conveyed further down the building floors to additional multiswitches.



TMS 1708 CE P

Art. No. 318410

EAN Number
5702663184107



TMS 1724 CE P

Art. No. 318434

EAN Number
5702663184343



TMS 1712 CE P

Art. No. 318418

EAN Number
5702663184183



TMS 1732 CE P

Art. No. 318442

EAN Number
5702663184428



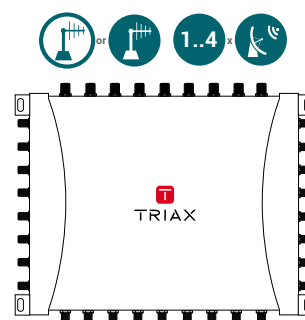
TMS 1716 CE P

Art. No. 318426

EAN Number
5702663184268

TRIAX[®] multiswitch solutions

4 positions



8 12 16 24 28 32

Type:	TMS 1708 CE P	TMS 1712 CE P	TMS 1716 CE P	TMS 1724 CE P	TMS 1732 CE P
	Cascadable	Cascadable	Cascadable	Cascadable	Cascadable
Art. no.	318410	318418	318426	318434	318442
CHARACTERISTICS					
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	passive	passive	passive	passive	passive
Switch commands	13/18 V, 0/22 kHz, DiSEqC 1.0				
FREQUENCY					
Frequency range SAT	950...2400MHz				
Frequency range TER	5...862MHz				
GAIN					
Gain - SAT (with 5 dB slope)	-2...+2 ±2dB	-3...0 ±2dB	-3...0 ±2dB	-5...-2 ±2dB	-5...-2 ±2dB
Gain - TER [47-862 MHz]	-30 ±3dB	-30 ±3dB	-30 ±3dB	-33 ±3dB	-33 ±3dB
LOSS					
Through loss - Trunk SAT	-2 ±2dB	-2 ±2dB	-2 ±2dB	-2...-5 ±2dB	-2...-5 ±2dB
Through loss - Trunk TER	-2 ±2dB	-2 ±2dB	-2 ±2dB	-4 ±2dB	-4 ±2dB
ISOLATION					
Isolation cross polarisation H/V	typ. 30dB				
Isolation SAT to TER	typ. 30dB				
RETURN LOSS					
Return loss SAT inputs	>10dB				
Return loss SAT outputs	>10dB				
Return loss TER inputs	>10dB				
Return loss TER outputs	>10dB				
ELECTRICAL					
Impedance	75Ω				
OPERATIONAL					
Control LEDs	Green LED (Power)				
Max. current to each output (supplied by set top box)	68mA				
Temperature range	-20... 70°C				
CONNECTORS					
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow				
Connector Type	F-female				
DC input connector	5.5 / 2.1 mm				
Number of inputs	17	17	17	17	17
Number of outputs	17	17	17	17	17
Number of trunk inputs	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER
Number of trunk outputs	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER	4 SAT, 1 TER
Subscriber outputs	8	12	16	24	32
MECHANICAL					
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	286mm	286mm	286mm	286mm	286mm
Width (mm)	186mm	185mm	185mm	304mm	304mm
Height (mm)	63mm	63mm	63mm	63mm	63mm
Material	steel metal cabinet				
Packing QTY	1	1	1	1	1

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX

TRIAX[®] multiswitch solutions

cascadable, passive TER, for external PSU



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features - Cascadable switches

- In contrast to standalone multiswitches, a cascadable system can be extended to become a solution covering a very large number of end-users /satellite receivers.
- If your building layout means that users live on different floors, resulting in variable cable lengths from the multiswitch to the end-user apartment, a cascadable

multiswitch installation is the best solution. Cascadable means that every multiswitch has its standard input from the LNBS, but furthermore has outputs, where the LNB signal can be conveyed further down the building floors to additional multiswitches.



TMS 17x6C - Casc.
16SAT+1TER / 6out

Art. No. 301506
EAN Number
5702663015067



TMS 17x16C - Casc.
16SAT+1TER / 16out

Art. No. 301516
EAN Number
5702663015166



TMS 17x8C - Casc.
16SAT+1TER / 8out

Art. No. 301508
EAN Number
5702663015081



**TMS 17x24 C switch excl
PSU**

Art. No. 301517
EAN Number
5702663015173



TMS 17x12C - Casc.
16SAT+1TER / 12out

Art. No. 301512
EAN Number
5702663015128

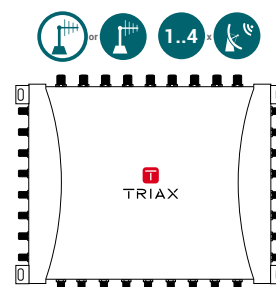


**TMS 17x28 C switch excl
PSU**

Art. No. 301518
EAN Number
5702663015180

TRIAX® multiswitch solutions

4 positions



8 12 16 24 28 32

Type:	TMS 17x6C Cascadable	TMS 17x8C Cascadable	TMS 17x12C Cascadable	TMS 17x16C Cascadable	TMS 17x24C Cascadable	TMS 17x28C Cascadable
Art. no.	301506	301508	301512	301516	301517	301518
CHARACTERISTICS						
Max. output level SAT @ -35 dB IMD3	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV	100dBμV
Max. output level TER @ 60dB IMD3	passive	passive	passive	passive	passive	passive
Switch commands	13/18 V, 0/22 kHz, DiSEqC 2.0, Toneburst VDC					
FREQUENCY						
Frequency range SAT	950-2150MHz					
Frequency range TER	5 - 862MHz					
GAIN						
Gain - TER [47-862 MHz]	-24.0dB	-24.0dB	-27.0dB	-27.0dB	-33.0dB	-33.0dB
LOSS						
Insertion loss - trunkline SAT	3.0dB	3.0dB	4.0dB	4.0dB		
Insertion loss - trunkline TER	4.0dB	4.0dB	4.0dB	4.0dB		
Through loss SAT	3dB	3dB	4dB	4dB		
Through loss TER	4dB	4dB	4dB	4dB		
ISOLATION						
Cross polarisation H/V	28.0dB	28.0dB	28.0dB	28.0dB	28.0dB	28.0dB
Isolation LNB to LNB	30.0dB	30.0dB	35.0dB	35.0dB		
Isolation out-out SAT	30.0dB	30.0dB	30.0dB	30.0dB		
Isolation out-out TER	25.0dB	25.0dB	25.0dB	25.0dB		
Isolation SAT to TER	30.0dB	30.0dB	30.0dB	30.0dB	30.0dB	30.0dB
Isolation TER to SAT	20.0dB	20.0dB	20.0dB	20.0dB		
RETURN LOSS						
Return loss SAT inputs				12.0dB		
Return loss SAT outputs				12.0dB		
Return loss TER inputs				8.0dB		
Return loss TER outputs				8.0dB		
ELECTRICAL						
Impedance	75Ω					
Power link (for ampl. in line)	Yes					
OPERATIONAL						
Control LEDs	Green LED (Power)					
DC Operating voltage	15.0 ± 0.5VDC	15.0 ± 0.5VDC	15.0 ± 0.5VDC	15.0 ± 0.5VDC	15.0 ± 0.5VDC	15.0 ± 0.5VDC
Temperature range	-20...+55°C					
CONNECTORS						
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow					
Connector Type	F-female					
DC input connector	F-female					
Number of trunk inputs	16 SAT, 1 TER	16 SAT, 1 TER	16 SAT, 1 TER	16 SAT, 1 TER	16 SAT, 1 TER	16 SAT, 1 TER
Number of trunk outputs	16 SAT, 1 TER	16 SAT, 1 TER	16 SAT, 1 TER	16 SAT, 1 TER	16 SAT, 1 TER	16 SAT, 1 TER
Subscriber outputs	6	8	12	16	24	28
MECHANICAL						
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Depth (mm)	215mm	215mm	215mm	215mm	325mm	325mm
Width (mm)	355mm	355mm	355mm	355mm	355mm	355mm
Height (mm)	55mm	55mm	55mm	55mm	55mm	55mm
Material	steel metal cabinet					
Packing QTY	1	1	1	1	1	1

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX

TRIAX[®] multiswitch solutions

cascadable with termination, passive TER, for external PSU



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common features - Cascadable switches

- In contrast to standalone multiswitches, a cascadable system can be extended to become a solution covering a very large number of end-users /satellite receivers.
- If your building layout means that users live on different floors, resulting in variable cable lengths from the multiswitch to the end-user apartment, a cascadable

multiswitch installation is the best solution. Cascadable means that every multiswitch has its standard input from the LNBS, but furthermore has outputs, where the LNB signal can be conveyed further down the building floors to additional multiswitches.



**TMS 17x6T Terminated -
16SAT+1TER / 6out**

Art. No. 301606

EAN Number
5702663016064



**TMS 17x16T Terminated -
16SAT+1TER / 16out**

Art. No. 301616

EAN Number
5702663016163



**TMS 17x 8T Terminated -
16SAT+1TER / 8out**

Art. No. 301608

EAN Number
5702663016088



**TMS 17x24T Terminated -
16SAT+1TER / 24 out**

Art. No. 301617

EAN Number
5702663016170



**TMS 17x12T Terminated -
16SAT+1TER / 12out**

Art. No. 301612

EAN Number
5702663016125



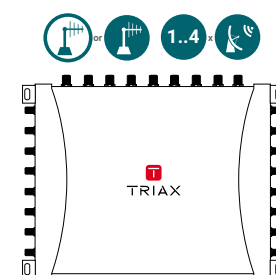
**TMS 17x28T Terminated -
16SAT+1TER / 28 out**

Art. No. 301618

EAN Number
5702663016187

TRIAX® multiswitch solutions

4 positions



8 12 16 24 28 32

Type:	TMS 17x6T Terminated	TMS 17x 8T Terminated	TMS 17x12T Terminated	TMS 17x16T Terminated	TMS 17x24T Terminated	TMS 17x28T Terminated
Art. no.	301606	301608	301612	301616	301617	301618
CHARACTERISTICS						
LNB power supply max.	1.3V/DC	1.3V/DC	1.3V/DC	1.3V/DC	1.3V/DC	1.3V/DC
Max. output level SAT @ -35 dB IMD3	100dBµV	100dBµV	100dBµV	100dBµV	100dBµV	100dBµV
Switch commands	13/18 V, 0/22 kHz, DiSEqC 2.0, Toneburst					
FREQUENCY						
Frequency range SAT	950-2150 (aktiv)MHz					
Frequency range TER	5-862 (passiv)MHz					
GAIN						
Gain - SAT (with 5 dB slope)	- 2.0dB	0dB	- 2.0dB	0dB		
Gain - TER [47-862 MHz]	- 21.0dB	- 22.0dB	- 24.0dB	- 24.0dB		
LOSS						
ISOLATION						
Cross polarisation H/V	28.0dB	28.0dB	28.0dB	28.0dB		
Isolation LNB to LNB	35.0dB	35.0dB	35.0dB	35.0dB	35.0dB	35.0dB
Isolation out-out SAT	30.0dB	30.0dB	30.0dB	30.0dB	30.0dB	30.0dB
Isolation out-out TER	25.0dB	25.0dB	25.0dB	25.0dB	25.0dB	25.0dB
Isolation SAT to TER	30.0dB	30.0dB	30.0dB	30.0dB	30.0dB	30.0dB
Isolation TER to SAT	20.0dB	20.0dB	20.0dB	20.0dB	20.0dB	20.0dB
RETURN LOSS						
Return loss SAT inputs	12.0dB	12.0dB	12.0dB	12.0dB	12.0dB	12.0dB
Return loss SAT outputs	12.0dB	12.0dB	12.0dB	12.0dB	12.0dB	12.0dB
Return loss TER inputs	8.0dB	8.0dB	8.0dB	8.0dB	8.0dB	8.0dB
Return loss TER outputs	8.0dB	8.0dB	8.0dB	8.0dB	8.0dB	8.0dB
ELECTRICAL						
Impedance	75Ω					
Power link (for ampl. in line)	Yes					
OPERATIONAL						
Control LEDs	Green for power, Yellow for power link					
DC Operating voltage	15.0 ± 0.5VDC					
Temperature range	0...+55°C					
CONNECTORS						
Colourcoding on inputs	VL=Black, VH=Red, HL=Green, HH=Yellow					
Connector Type	F-female					
Number of inputs	16 SAT, 1 TER	16 SAT, 1 TER	16 SAT, 1 TER	16 SAT, 1 TER	16 SAT, 1 TER	16 SAT, 1 TER
Number of trunk inputs	16 SAT, 1 TER	16 SAT, 1 TER	16 SAT, 1 TER	16 SAT, 1 TER	16 SAT, 1 TER	16 SAT, 1 TER
Subscriber outputs	6	8	12	16	24	28
MECHANICAL						
Depth (mm)	125mm	125mm	215mm	215mm	mm	mm
Width (mm)	355mm	355mm	355mm	355mm	355mm	355mm
Height (mm)	55mm	55mm	55mm	55mm	55mm	55mm
Packing QTY	1	1	1	1	1	1

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX[®] SCR multiswitch solutions

cascadable single cable distribution



Common features - SCR multiswitches

Our TMU single cable multiswitch family features state-of-the-art switching technology. Output switches between legacy and SCR receivers, with no installer or user intervention. With the growing need for more satellite receivers per apartment, SCR technology has obvious advantages, and TRIAX will help you to fully support this trend.



TMU 983C - SCR
8SAT+1TER / 8out

Art. No. 307352

EAN Number
5702663073524



TMU 1783C SCR
16SAT+1TER / 8out

Art. No. 307360

EAN Number
5702663073609

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
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TRIAX[®] SCR multiswitch solutions

1–4 positions

Legend:



Passive
Terrestrial
loopthrough



Active
Terrestrial
loopthrough



1 ... 4
satellite
positions

4 x **3x SCR**

Numbers of subscriber
outputs each for 3 STB
on same cable

6 **8** **12** **16** **24** **28** **32**

Numbers of
subscriber outputs
from the multiswitch

Type:	TMU 983C - SCR	TMU 1783C SCR
Art. no.	307352	307360
CHARACTERISTICS		
Input polarity gain control SAT		
Input polarity gain control TER		
LNB current max.	500mA	500mA
Max. input level - SAT (IMD3 - 35dB)	60...91dB μ V	60...91dB μ V
Max. input level - TER (IMD3 - 60dB)	90dB μ V	90dB μ V
Max. output level SAT @ -35 dB IMD3	80dB μ V	80dB μ V
Max. output level TER @ 60dB IMD3		
Switch commands	13V/18V - 13V/22 kHz - 18V/22 kHz	
FREQUENCY		
Frequency range SAT		
Frequency range TER		
LOSS		
Insertion loss - trunkline SAT	3.0dB	3.0dB
Insertion loss - trunkline TER	5.0dB	5.0dB
Tap loss TER	typ. 24dB	typ. 24dB
ISOLATION		
Cross polarisation H/V		
Isolation out-out SAT		
Isolation out-out TER		
Isolation SAT to TER		
Isolation TER to SAT		
RETURN LOSS		
Return loss SAT inputs	>10dB	>10dB
Return loss SAT outputs		
Return loss TER inputs		
Return loss TER outputs		
ELECTRICAL		
Impedance	75 Ω	
OPERATIONAL		
DC Operating voltage	15VDC	
DC Current consumption (typ.)		
LINE power current (max.)	85.0mA	
LINE power DC voltage (max.)		
AC Supply voltage		
Temperature range	-20...50°C	
CONNECTORS		
Colourcoding on inputs		Yes
Connector Type		F-female
DC input connector	5.5 / 2.1 mm	5.5 / 2.1 mm
Number of SCR / STB (max.)	24	24
Number of trunk inputs	8 SAT, 1 TER	16 SAT, 1 TER
Number of trunk outputs	9	17
Number of SCR / STB per Output	3	3
Subscriber outputs	8	4
MECHANICAL		
Depth (mm)	122mm	222mm
Width (mm)	222mm	350mm
Height (mm)	51mm	51mm
Packing QTY	1	1

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TRIAX[®] SkyQ multiswitch solutions

cascadable single cable distribution



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Designed to support a wide range of new and existing multiswitch installations

- 4 cascadeable LNB inputs from 1 universal Quattro LNB
- 2 Wideband LNB inputs (Vertical, Horizontal) for a 2 satellite installation
- 1 cascadeable terrestrial trunk input
- 1 level adjuster for terrestrial signals 0 – 20dB
- 4, 8 or 12 SCR/Legacy outputs
- 1 DC input (for switch, line and LNB powering)
- 75Ω self-termination switch
- Can be used as a Cascade, Standalone or Terminated Multiswitch
- Each output can support a wide variety of satellite receivers:
 - In legacy mode, the outputs can be used as a standard multiswitch
 - In SCR mode, each output supports up to 16 User Bands with all versions of the single cable

technology. This includes OLT, SCR, CSS, SKY UK, EN50494 and EN50607

- As all outputs are independent, the installation can be a mix of legacy and dSCR connections
- The terrestrial input supports any services that operate between 47 - 790MHz, which includes terrestrial TV, DAB and FM reception
- The trunk outputs allow the cascade of multiple switches to support large installations and have a 75Ω self-termination toggle switch
- Can be used as a Cascade, Standalone or Terminated Multiswitch
- The DC power can be inserted into the switch on the F connector, or at any point in the system. In cascaded systems multiple power supplies might be required



**TdSCR 504 SkyQ
dSCR "add on" multi switch**

Art. No. 318182

EAN Number
5702663181823



**TdSCR 508 SkyQ
dSCR multi switch**

Art. No. 318183

EAN Number
5702663181830



**TdSCR 512 SkyQ
dSCR multi switch**

Art. No. 318184

EAN Number
5702663181847

TRIAX® SkyQ multiswitch solutions

cascadable single cable distribution

Legend:



Passive Terrestrial loopthrough



Active Terrestrial loopthrough

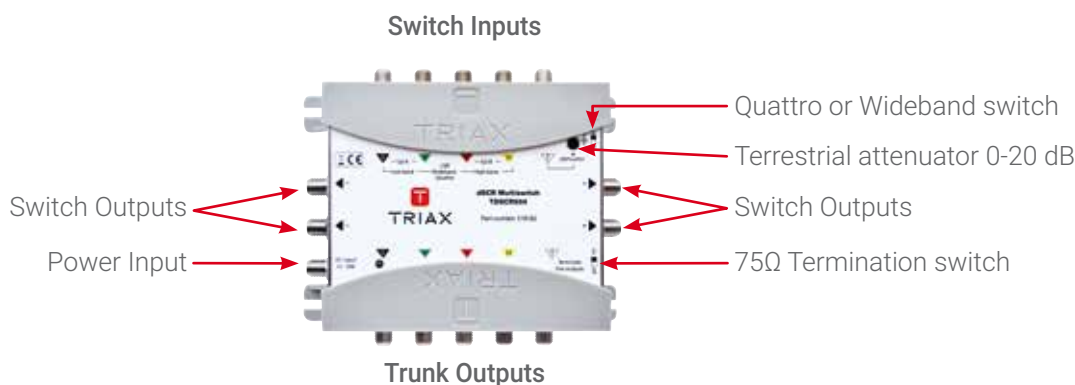


1 ... 4 satellite positions



Numbers of subscriber outputs from the multiswitch

TMDS 42 C SkyQ dSCR Add-On
Channel plan of user bands:
Sky UK, Sky Italia, Sky Germany



- TERRESTRIAL RECEPTION
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Type:	TdSCR504	TdSCR508	TdSCR512
Art. no.	318182	318183	318184
Inputs	-	4 SAT (1x quattro or 2 x wideband) + 1 TERR	
User outputs	-	4 Outputs with 16 User bands	8 Outputs with 16 User bands
Impedance inputs / outputs	Ohm	75	75
FREQUENCY RANGE - SAT			
- dSCR, Legacy	MHz	950 – 2150	950 – 2150
- Wideband	MHz	290 – 2340	290 – 2340
Frequency range Terr.	MHz	40-790, active	40-790, active
Input power / dSCR / Legacy	dBm	-38 to -8	-38 to -8
Output power dSCR / Legacy	dBuV	85 (AGC) (-25 dBm)	85 (AGC) (-25 dBm)
OPERATIONAL			
Insertion loss Terr.	dB	Typ. 0	Typ. 0
Attenuation Terr.	dB	0 to 20	0 to 20
Max. Output power Terr.	dBuV	90	90
Through loss SAT	dB	Typ. -2.5	Typ. -3
Through loss Terr.	dB	Typ. -4	Typ. -5
Isolation H/V	dB	25	25
Return loss Inputs / Outputs	dB	10	10
User band frequencies	MHz	SKY UK, EN50607, EN50494 (automatic selection)	
LNB supply voltage	V	15 – 20	15 – 20
Max. LNB supply current	mA	1000	1000
Current consumption	mA	< 800 @15V	< 1500 @15V
External PSU	V	Yes (15-20)	Yes (15-20)
MECHANICAL			
Dimension (LxBxH)	mm	166 x 136 x 52	166 x 237 x 52
Weight	g	520	980
Operating temperature range	°C	-20 to +50	-20 to +50
DC connector type	-	F-Connector	F-Connector

TRIAx® Accessories

amplifiers for multiswitches



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Common features - Trunk launch and line amplifiers

A launch amplifier is the first amplifier in a multiswitch installation, typically near the LNB and dish installation. It is designed to boost your signal to get more mileage in a long cascaded installation. Using a line amplifier, you can compensate for the cable losses further down the trunk lines of your satellite distribution system.

Remember:
Due to the laws of physics there are limits to how many line amplifiers you can add into a multiswitch cascade before your signal quality deteriorates beyond practical use.



SAT Line amplifier

Art. No. 300401

EAN Number
5702663004016



TMS 13 AMP - Lineamplifier

Art. No. 307420

EAN Number
5702663074200



TMS 55 / IF-amplifier

Art. No. 300315

EAN Number
5702663003156



TMS 17 / IF-amplifier

Art. No. 301501

EAN Number
5702663015012



TMS 9 / IF-amplifier

Art. No. 300365

EAN Number
5702663003651

TRIAX® Accessories

amplifiers for multiswitches

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Type:	SAT Line amplifier	TMS 55 IF-amplifier	TMS 9 IF-amplifier	TMS 13 IF-amplifier	TMS 17 IF-amplifier
Art. no.	300401	300315	300365	307420	301501
CHARACTERISTICS					
Max. output level SAT @ -35 dB IMD3	100dBµV	110dBµV	110dBµV		110dBµV
Out level TER - 47-862 MHz		105dBµV	105dBµV		105dBµV
FREQUENCY					
Frequency range	47-2300MHz	5...862/ 950 - 2150MHz	5...862/ 950 - 2150MHz	5...862/ 950 - 2150MHz	5...862/ 950 - 2150MHz
GAIN					
Gain	16...20dB				
Gain - SAT (5 dB slope)		20...25dB	14dB	18 to 24 +/-2dB	18....24dB
Gain - TER [47-862 MHz]		17 (± 2)dB	17 (± 2)dB	17+/-2dB	17dB
Gain - FM [47-108 MHz]				8dB	
Gain - DAB [170-230 MHz]				5dB	
Slope control SAT					
Noise figure SAT		< 12.0dB			< 8.0dB
LOSS					
Attenuation - adjustable					0 - 10dB
Adj. attenuator SAT		0-20dB	0-20dB	0 to 10dB	0-10dB
Adj. attenuator TER		0-20dB	0-20dB	0, 6 (switchable)	0-10dB
Equalization SAT		5 (fixed)	5 (fixed)	0 to 15	0, 6 (switchable)
Equalization TER		2-15 (adjustable)	2-15.0	dB	0-15.0 (adjustable)
ISOLATION					
Isolation SAT to SAT					30.0dB
Isolation trunk to trunk					
RETURN LOSS					
Return loss SAT outputs	10.0dB	dB	dB	>=10dB	dB
Return loss SAT	dB	10.0dB	10.0dB	dB	10.0dB
ELECTRICAL					
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL					
LED indicator					
DC Operating voltage		18VDC	18VDC		18VDC
DC Current consumption (typ.)					
LINE power DC voltage (max.)					
Temperature - operating		0...50°C	0...50°C	0...55°C	0...55°C
CONNECTORS					
Number of trunk inputs		4x SAT, 1x TER	8x SAT, 1x TER	12 SAT, 1 TER	16x SAT, 1x TER, power link
Number of trunk outputs	1	4 SAT, 1 TER	8 SAT, 1 TER	12 SAT, 1 TER	16 SAT, 1x TER + power link
Colourcoding on inputs		Yes	Yes	Yes	Yes
Connector Type	F-female	F-female	F-female		F-female
MECHANICAL					
Packing QTY	1	1	1	1	1
Weight (kg)	0.06kg				
Dimensions (H x D x W)	82 x 25 x 27mm				

TRIAX® Accessories

taps & splitters for multiswitches



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Common features - Trunk taps and splitters

Taps and splitters expand the TMS 5x series into a cascable system.

Using TMS 55 taps, it is possible to construct large cascable systems. Different tap values allow fine-tuning of available signal levels, and by using splitters you can

balance your distribution system in the best possible way. The MultiTAP allows you to extend any cascade into large systems using a passive TAP technique in the trunk, and 3 active TAPS on each level.



TMM 4+1 Splitter

Art. No. 305320

EAN Number
5702663053205



TMS 55-12 TAP

Art. No. 300313

EAN Number
5702663003132



TMM 5 Splitter

Art. No. 305319

EAN Number
5702663053199



TMS 55-15 TAP

Art. No. 300333

EAN Number
5702663003330



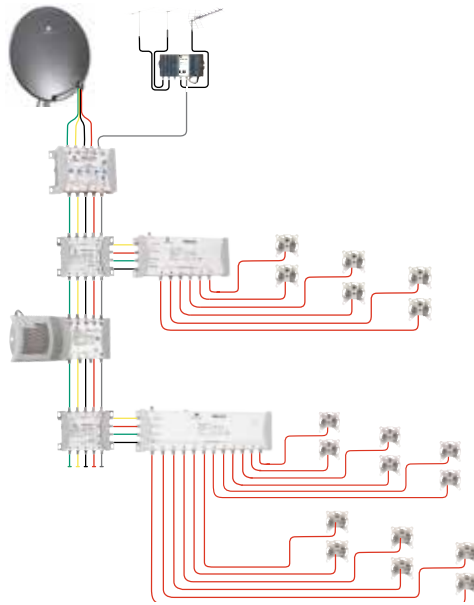
TMS 510 - Splitter

Art. No. 300319

EAN Number
5702663003194

TRIAx® Accessories

taps & splitters for multiswitches



Type:	TMM 4+1 Splitter	TMM 5 Splitter	TMS 510 - Splitter	TMS 55-12 TAP	TMS 55-15 TAP
Art. no.	305320	305319	300319	300313	300333
FREQUENCY					
Frequency range SAT	MHz	MHz	950-2150MHz	950-2150MHz	950-2150MHz
Frequency range	47-2150MHz	47-2150MHz	47-2150MHz	47-2150MHz	47-2150MHz
LOSS					
Through loss - SAT	4.5 ±1dB	4.5 ±1dB	4.0 ±1dB	1.2 ±1dB	1.2 ±1dB
Through loss - TER	4.3 ±1dB	2.5 ±1.5dB	6.0 ±1dB	2.5 ±1.5dB	2.5 ±1.5dB
Tap loss - SAT				12.5dB	15.0dB
Tap loss - TER				12.5dB	15.0dB
ISOLATION					
Isolation trunkline			> 30.0dB	> 30.0dB	> 30.0dB
Isolation out-out SAT	> 20.0dB	> 20.0dB			
Isolation out-out TER	> 22.0dB	> 22.0dB			
RETURN LOSS					
Return loss SAT	13dB	13dB			
Return loss TER	15dB	15dB			
ELECTRICAL					
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL					
DC Passthrough	Yes	Yes			
Temperature - operating	0...55°C	0...55°C	-20...55°C	-20...55°C	0...55°C
CONNECTORS					
Number of trunk inputs	4 x SAT, 1 x TER	4 x SAT, 1 x TER	4 x SAT, 1 x TER	4 x SAT, 1 x TER	4 x SAT, 1 x TER
Number of trunk outputs	2x4 SAT, 2x1 TER	2x4 SAT, 2x1 TER	8 x SAT, 2 x TER	4 x SAT, 1 x TER	4 x SAT, 1 x TER
Colourcoding oninputs	Yes	Yes	Yes	Yes	Yes
Connector Type	F-female	F-female	F-female	F-female	F-female
MECHANICAL					
Packing QTY	1	1	1	1	1
Product Height	190mm	190mm	145mm	145mm	145mm
Product Depth	78mm	78mm	42mm	42mm	42mm
Product Width	105mm	105mm	255mm	119mm	119mm
Weight (kg)	0.49kg	0.49kg			

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TRIAX[®] Accessories

power supplies – terminators & connectors



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Common features - Power supplies

Power supplies for your multiswitch installation come in many different varieties in terms of voltage, current supply and connector.

Note that the DC output connector may be different depending on the switch series. Make sure you get the one that fits the multiswitch you are installing.

Choose the right power supply (PSU)

Small cascadable setups with 1 or 2 Sat Positions run on the small 2.0A power supply.

A larger cascadable system containing multiple Sat Positions and LNBS can be driven by a 3.0A power supply.



TMS 1520-55 PSU - EU
15VDC/2.0A/
5.5mm DC-plug

Art. No. 318150
EAN Number
5702663181502



TMS 1533-55 PSU - EU
15VDC/3.3A/
5.5mm DC-plugg

Art. No. 318152
EAN Number
5702663181526



TMS 1520-55 PSU - BS
15VDC/2.0A/
5.5mm DC-plug

Art. No. 318158
EAN Number
5702663181588



TMS 1533-55 PSU - BS
15VDC/3.3A/
5.5mm DC-plugg

Art. No. 318151
EAN Number
5702663181519



TMS 1520 PSU - RCA
15VDC/2.0A/
RCA DC-plug

Art. No. 318154
EAN Number
5702663181540

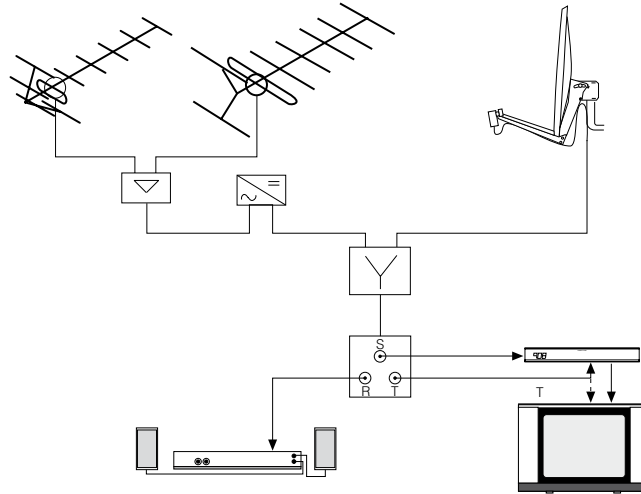


TMS 1533 PSU - RCA
15VDC/3.3A/
RCA DC-plug

Art. No. 318156
EAN Number
5702663181564

TRIAX® Accessories

power supplies – terminators & connectors



In Line DC Block

Art. No. 370706

EAN Number
5702663707061



RFC 75 - F-male Terminator - 5 pcs. bag

Art. No. 153054

EAN Number
5702661530548



RFC 75 DC - F-male Terminator DC Blocked

Art. No. 350659

EAN Number
5702663506596



TMM 75 ohm - F-male Terminator DC Blocked

Art. No. 305349

EAN Number
5702663053496



TMM F_F male Quick connector

Art. No. 370009

EAN Number
5702663700093



TMM LK - Connecting leads - 25,5 cm

Art. No. 305309

EAN Number
5702663053090



TMM RPL - Power lead

Art. No. 305350

EAN Number
5702663053502



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TRIAX[®] DiSEqC switches

for multi satellite reception



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Common features - DiSEqC switches

TRIAX DiSEqC switches are used in multi satellite installations for switching between 2 or 4 LNBs, each pointing at different satellites. High isolation ensures problem-free operation in multiple user installations.

Available in diode or relay versions (relay is a mechanical solution for extreme weather conditions), and can be used with single, dual and quad LNBs.

MFD 41D - 4x1 switch

Art. No. 300509

FREQUENCY	
Frequency range SAT	950...2200 MHz
CONNECTORS	
Number of inputs	4
Number of outputs	1



MFD 21D - 2x1 switch

Art. No. 300510

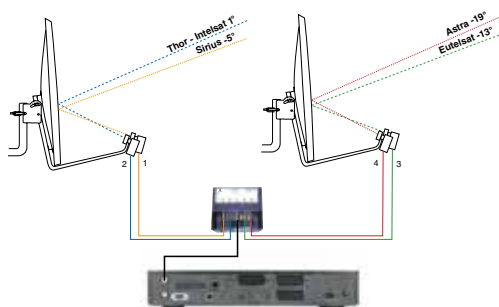
FREQUENCY	
Frequency range SAT	950...2200 MHz
CONNECTORS	
Number of inputs	2
Number of outputs	1



MFD 21R - 2x1 Relay switch

Art. No. 300508

FREQUENCY	
Frequency range SAT	950...2200 MHz
CONNECTORS	
Number of inputs	2
Number of outputs	1



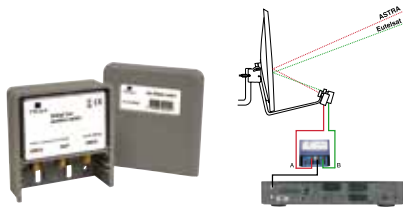
TRIAX[®] DiSEqC switches

for multi satellite reception

DiSEqC 502 - 2x1 switch

Art. No. 300502

FREQUENCY	
Frequency range SAT	900...2150 MHz
CONNECTORS	
Number of inputs	2
Number of outputs	1



DiSEqC 504 - 4x1 switch

Art. No. 300504

FREQUENCY	
Frequency range SAT	900...2150 MHz
CONNECTORS	
Number of inputs	4
Number of outputs	1



Type:	DiSEqC 502 - 2x1 switch	DiSEqC 504 - 4x1 switch	MFD 21D - 2x1 switch	MFD 21R - 2x1 Relay switch	MFD 41D - 4x1 switch
Art. no.	300502	300504	300510	300508	300509
CHARACTERISTICS					
DiSEqC control	DiSEqC 1.0	DiSEqC 1.0	DiSEqC 1.0 and tone burst	DiSEqC 1.0 and tone burst	DiSEqC 1.0 and tone burst
FREQUENCY					
Frequency range SAT	900...2150MHz	900...2150MHz	950...2200MHz	950...2200MHz	950...2200MHz
LOSS					
Through loss	1.5 (max 3.0)dB	1.5 (max 3.0)dB	1.5dB	1dB	2.5dB
ISOLATION					
Isolation input A-B	> 10dB	> 10dB	> 25dB	> 25dB	> 30dB
RETURN LOSS					
Return Loss	> 8dB	> 8dB	> 10dB	> 10dB	> 8dB
ELECTRICAL					
Number of positions	2	4	2	2	4
Switch Type	DiSEqC	DiSEqC	Diodes	Relay	Diodes
OPERATIONAL					
DC Current consumption (typ.)	25mA	25mA	< 30mA	< 30mA	< 30mA
Functions	Position/ tone burst	Position/ option	Position/ option/ band	Position/ option/ band	Position/ option
Temperature range	-30...+60°C	-30...+60°C	-30 ... +60°C	-30 ... +60°C	-30 ... +60°C
MECHANICAL					
Remarks			Hi End DiSEqC switch	Hi End DiSEqC switch	Hi End DiSEqC switch
Height (mm)	60mm	60mm	106mm	106mm	106mm
Width (mm)	60mm	125mm	120mm	120mm	120mm
Depth (mm)	12mm	12mm	43mm	43mm	43mm

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

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TRIAX® Mounting Accessories

for aerials



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SATELLITE
& FIBRE
RECEPTION

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Triax range of masts and brackets – for perfect installations

Triax has a wide range of mounting brackets. Please refer to the mast calculation section of the technical appendix, and make your installation in accordance with the EN 50083-1 standard, with a restriction of 1650 Nm as maximum on a normal building.

Wall bracket - 3 legs

Art. No. 140045

EAN Number 5702661400452

MECHANICAL

Clearance from wall	350 mm
Height (mm)	200 mm
Tube dimension	Ø30 mm
Material	Steel
Packing QTY	1



Wall bracket - 2 x 2 legs 25-50 cm

Art. No. 140037

EAN Number 5702661400377

MECHANICAL

Clearance from wall	250-500 mm
Height (mm)	40 mm
Tube dimension	Ø 51 max.
Material	5 x 35 mm Electrogalv. steel
Packing QTY	1



Window bracket

Art. No. 130016

EAN Number 5702661300165

MECHANICAL

Clearance from wall	600 mm
Material	Aluminium
Packing QTY	1



Wall bracket - 2+3 legs 25-50 cm

Art. No. 140047

EAN Number 5702661400476

MECHANICAL

Clearance from wall	250-500 mm
Height (mm)	40 mm
Tube dimension	Ø 51 max.
Material	5 x 35 mm Electrogalv. steel
Packing QTY	1



Window bracket

Art. No. 130018

EAN Number 5702661300189

MECHANICAL

Clearance from wall	780 mm
Material	Aluminium
Packing QTY	1



Wall bracket - 2+3 legs 25-50 cm

Art. No. 140048

EAN Number 5702661400483

MECHANICAL

Clearance from wall	500-750 mm
Height (mm)	40 mm
Tube dimension	Ø 51 max.
Material	5 x 35 mm Electrogalv. steel
Packing QTY	1



Wall bracket - 2 legs 7,5 cm

Art. No. 140036

EAN Number 5702661400360

MECHANICAL

Clearance from wall	75 mm
Height (mm)	40 mm
Tube dimension	30-50 mm
Material	Galvanized steel
Packing QTY	1



TRIAX® Mounting Accessories

for aerials

Wall bracket - 2 legs 5 cm

Art. No. 131002

EAN Number 5702661310027

MECHANICAL	
Clearance from wall	75 mm
Material	Galvanized steel
Tube dimension	30-50mm
Packing QTY	1



Wall bracket - 2 legs 15 cm

Art. No. 131012

EAN Number 5702661310126

MECHANICAL	
Clearance from wall	150 mm
Material	Galvanized steel
Tube dimension	30-50mm
Packing QTY	1



Wall bracket - 2 legs 25 cm

Art. No. 131022

EAN Number 5702661310225

MECHANICAL	
Clearance from wall	250 mm
Material	Galvanized steel
Tube dimension	30-50mm
Packing QTY	1



Wall bracket - 2 legs 35 cm

Art. No. 131032

EAN Number 5702661310324

MECHANICAL	
Clearance from wall	350 mm
Material	Galvanized steel
Tube dimension	30-50mm
Packing QTY	1



Wall bracket - 2 legs 45 cm

Art. No. 131042

EAN Number 5702661310423

MECHANICAL	
Clearance from wall	450 mm
Material	Galvanized steel
Tube dimension	30-50mm
Packing QTY	1



Wall bracket - 3 legs 15 cm

Art. No. 131013

EAN Number 5702661310133

MECHANICAL	
Clearance from wall	150 mm
Material	Galvanized steel
Tube dimension	30-50mm
Packing QTY	1



Wall bracket - 3 legs 25 cm

Art. No. 131023

EAN Number 5702661310232

MECHANICAL	
Clearance from wall	250mm
Material	Galvanized steel
Tube dimension	30-50
Packing QTY	1



Wall bracket - 3 legs 35 cm

Art. No. 131033

EAN Number 5702661310331

MECHANICAL	
Clearance from wall	350mm
Material	Galvanized steel
Tube dimension	30-50
Packing QTY	1



Wall bracket - 3 legs 45 cm

Art. No. 131043

EAN Number 5702661310430

MECHANICAL	
Clearance from wall	450mm
Material	Galvanized steel
Tube dimension	30-50
Packing QTY	1



Wall bracket - 3 legs 55 cm

Art. No. 131053

EAN Number 5702661310539

MECHANICAL	
Clearance from wall	550mm
Material	Galvanized steel
Tube dimension	30-50
Packing QTY	1



Wall bracket - 3 legs 65 cm

Art. No. 131063

EAN Number 5702661310638

MECHANICAL	
Clearance from wall	650mm
Material	Galvanized steel
Tube dimension	30-50
Packing QTY	1



Wall bracket - 3 legs 75 cm

Art. No. 131073

EAN Number 5702661310737

MECHANICAL	
Clearance from wall	750 mm
Material	Galvanized steel
Tube dimension	30-50
Packing QTY	1



TERRESTRIAL
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SATELLITE
& FIBRE
RECEPTION

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CABLES &
CONNECTORS

OUTLETS
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TERRESTRIAL
RECEPTION

GH 25 - Wall bracket - 25.0 cm Art. No. 350600 EAN Number 5702663506008

MECHANICAL	
Clearance from wall	250 mm
Tube dimension	30-60 mm
Material	Galvanized steel
Packing QTY	1



SATELLITE
& FIBRE
RECEPTION

GF 85 Wall Bracket set Art. No. 140033 EAN Number 5702661400339

MECHANICAL	
Clearance from wall	75 mm
Width (mm)	850 mm
Tube dimension	30-50 mm
Material	Galvanized steel
Packing QTY	1



CABLE TV
(CATV)

GF 125 Wall Bracket set Art. No. 140038 EAN Number 5702661400384

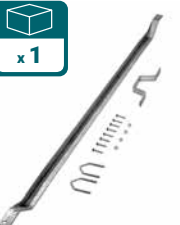
MECHANICAL	
Clearance from wall	75 mm
Width (mm)	1250 mm
Tube dimension	30-50 mm
Material	Galvanized steel
Packing QTY	1



HEADENDS
CAS SYSTEM
MODULATORS

GF 175 Wall Bracket set Art. No. 140039 EAN Number 5702661400391

MECHANICAL	
Clearance from wall	75 mm
Width (mm)	1750 mm
Tube dimension	30-50 mm
Material	Galvanized steel
Packing QTY	1



CABLES &
CONNECTORS

GF 110-170 Wall Bracket set Art. No. 140040 EAN Number 5702661400407

MECHANICAL	
Clearance from wall	75 mm
Width (mm)	1100-1700 mm
Tube dimension	30-50 mm
Material	Galvanized steel
Packing QTY	1



OUTLETS
TAPS &
SPLITTER

U-clamp - for wall mounts Art. No. 140035 EAN Number 5702661400353

MECHANICAL	
Tube dimension	30-50 mm
Material	Elektro galv. steel
Packing QTY	2



INHOUSE
CONNECTIVITY

Single angle pipe - short Art. No. 140010 EAN Number 5702661400100

MECHANICAL	
Clearance from wall	mm
Height (mm)	210 mm
Tube dimension	38 / 30-50 mm
Material	Galvanized steel
Packing QTY	1



SURVEILLANCE
(CCTV)

Single angle pipe - long Art. No. 140011 EAN Number 5702661400117

MECHANICAL	
Clearance from wall	mm
Height (mm)	210 mm
Tube dimension	38 / 30-50 mm
Material	Galvanized steel
Packing QTY	1



INSTRUMENTS
TOOLS &
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Mast clamp - 30-50 mm straight Art. No. 133107 EAN Number 5702661331077

MECHANICAL	
Material	Galvanized steel
Packing QTY	1



Mast clamp - 38 mm w. 2 screws Art. No. 140041 EAN Number 5702661400414

MECHANICAL	
Tube dimension	38 mm
Material	Galvanized steel
Packing QTY	1



Mast clamp - 38 mm straight Art. No. 132003 EAN Number 5702661320033

MECHANICAL	
Tube dimension	38 mm
Material	Galvanized steel
Packing QTY	1



Mast clamp - 50 mm straight Art. No. 132006 EAN Number 5702661320064

MECHANICAL	
Tube dimension	50 mm
Material	Galvanized steel
Packing QTY	1



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Mast clamp - double - 30-50 mm

Art. No. 133245

EAN Number 5702661332456

MECHANICAL

Tube dimension	30-50 mm
Material	Galvanized steel
Packing QTY	1



Clips for index - Steel

Art. No. 133011

EAN Number 5702661330117

MECHANICAL

Height (mm)	5 mm
Tube dimension	30-50 mm
Material	Steel
Packing QTY	1



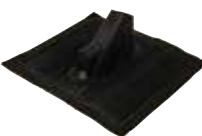
Roof cover - Black

Art. No. 132203

EAN Number 5702661322037

MECHANICAL

Height (mm)	150 mm
Tube dimension	30-50 mm
Material	Aluminium with polyester
Packing QTY	1



MAKA 15 - Mast Top 32-60mm

Art. No. 140406

EAN Number 5702661404061

MECHANICAL

Tube dimension	30-50 mm
Material	Plastic
Packing QTY	20



DAB 42-2 Roof Cover

Art. No. 140400

EAN Number 5702661404009

MECHANICAL

Height (mm)	100 mm
Tube dimension	42 mm
Material	Rubber
Packing QTY	1



Mast Top - ø38 mm pipe

Art. No. 140213

EAN Number 5702661402135

MECHANICAL

Tube dimension	38 mm
Material	Plastic
Packing QTY	1



DAB 50-2 Roof Cover

Art. No. 140399

EAN Number 5702661403996

MECHANICAL

Height (mm)	100 mm
Tube dimension	50 mm
Material	Rubber
Packing QTY	1



Mast Top - ø50 mm pipe

Art. No. 140215

EAN Number 5702661402159

MECHANICAL

Tube dimension	50 mm
Material	Plastic
Packing QTY	1



DAB 60-1 Roof Cover

Art. No. 140398

EAN Number 5702661403989

MECHANICAL

Height (mm)	100 mm
Tube dimension	60 mm
Material	Plastic
Packing QTY	1



Bracket kit for UFO

Art. No. 133226

EAN Number 5702661332265

MECHANICAL

Material	Steel / Plastic
Packing QTY	1



Index medium - Black

Art. No. 132213

EAN Number 5702661322136

MECHANICAL

Height (mm)	50 mm
Tube dimension	30-50 mm
Material	Rubber
Packing QTY	1



Center bracket for UFO

Art. No. 133225

EAN Number 5702661332258

MECHANICAL

Material	Steel - Polyester Powder Coated
Packing QTY	1



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TERRESTRIAL
RECEPTION

ASR Mast 50 mm, length 2.0 m
Art. No. 140384
EAN Number 5702661403842

MECHANICAL	
Length	2000 mm
Tube dimension	50 mm
Material	Galvanized steel
Packing QTY	1



Mast 38 mm, length 6.0 m
Art. No. 140110
EAN Number 5702661401107

MECHANICAL	
Height (mm)	6000 mm
Tube dimension	38 mm
Material	Hot Galv. steel
Packing QTY	1



SATELLITE
& FIBRE
RECEPTION

ASR Mast 50 mm, length 3.0 m
Art. No. 140385
EAN Number 5702661403859

MECHANICAL	
Length	3000 mm
Tube dimension	50 mm
Material	Galvanized steel
Packing QTY	1



Mast 50 mm, length 2.0 m
Art. No. 140028
EAN Number 5702661400285

MECHANICAL	
Height (mm)	2000 mm
Tube dimension	50 mm
Material	Hot Galv. steel
Packing QTY	10



CABLE TV
(CATV)

Mast 38 mm, length 1.5 m
Art. No. 140030
EAN Number 5702661400308

MECHANICAL	
Height (mm)	1500 mm
Tube dimension	38 mm
Material	Hot Galv. steel
Packing QTY	10



Mast 50 mm, length 3.0 m
Art. No. 140029
EAN Number 5702661400292

MECHANICAL	
Height (mm)	3000 mm
Tube dimension	50 mm
Material	Hot Galv. steel
Packing QTY	1



HEADENDS
GAS SYSTEM
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Mast 38 mm, length 3.0 m
Art. No. 140031
EAN Number 5702661400315

MECHANICAL	
Height (mm)	3000 mm
Tube dimension	38 mm
Material	Hot Galv. steel
Packing QTY	10



Mast 50 mm, length 4.0 m
Art. No. 140008
EAN Number 5702661400087

MECHANICAL	
Height (mm)	3000 mm
Tube dimension	50 mm
Material	Hot Galv. steel
Packing QTY	1



CABLES &
CONNECTORS

OUTLETS
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INHOUSE
CONNECTIVITY

Mast 38 mm, length 3.0 m
DIN 2394
Art. No. 140113
EAN Number 5702661401138

MECHANICAL	
Height (mm)	3000 mm
Tube dimension	38 mm
Material	Hot Galv. steel
Packing QTY	1



Mast 50 mm, length 6.0 m
Art. No. 140120
EAN Number 5702661401206

MECHANICAL	
Height (mm)	6000 mm
Tube dimension	50 mm
Material	Hot Galv. steel
Packing QTY	1



SURVEILLANCE
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Mast 38 mm, length 4.0 m
Art. No. 140112
EAN Number 5702661401121

MECHANICAL	
Height (mm)	3000 mm
Tube dimension	38 mm
Material	Hot Galv. steel
Packing QTY	1



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TRIAx[®] Mounting Accessories

for aerials

2-part chimney bracket with band

Art. No. 140032

EAN Number 5702661400322

MECHANICAL

Clearance from wall 50 mm

Tube dimension 30-50 mm

Material Galvanized steel

Packing QTY 1



Cable guards - Alu 10/12 mm

Art. No. 133053

EAN Number 5702661330537

MECHANICAL

Length 2375 mm

Material Aluminum

Packing QTY 5



TERRESTRIAL
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SATELLITE
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RECEPTION

Chimney bracket 2 split

Art. No. 130030

EAN Number 5702661300301

MECHANICAL

Clearance from wall 50 mm

Tube dimension 30-50 mm

Material Galvanized steel

Packing QTY 1



Cable guards - Alu 10/12 mm

Art. No. 133054

EAN Number 5702661330544

MECHANICAL

Height (mm) 5500 mm

Material Aluminum

Packing QTY 5



CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
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Single wireset for chimney mounting - spare parts

Art. No. 130001

EAN Number 5702661300011

MECHANICAL

Material Galvanized steel

Packing QTY 1



Expansion bolts

Art. No. 140380

EAN Number 5702661403804

MECHANICAL

Diameter Ø 10 mm

Length 80 mm

Material Electro galv.

Packing QTY 50



CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

Black selfvulcanized tape

Art. No. 153061

EAN Number 5702661530616

MECHANICAL

Height (mm) 18 mm

Material Rubber

Packing QTY 1



Screw 8 x 80

Art. No. 140351

EAN Number 5702661403514

MECHANICAL

Diameter Ø 8 mm

Length 80 mm

Material Electro galv.

Packing QTY 200



INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

Grey mountingtape - l=10m

Art. No. 153060

Frequency range

Height (mm) 10 mm

Material Plastic

Packing QTY 10



Screw 10 x 50

Art. No. 140360

EAN Number 5702661403606

MECHANICAL

Diameter Ø 10 mm

Length 50 mm

Material Electro galv.

Packing QTY 100



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TRIAX® Mounting Accessories

for a professional installation



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**Cable clips white,
25 pcs. - blister**
Art. No. 153009
EAN Number 5702661530098



Cable strip - SST 21 black
Art. No. 153065
EAN Number 5702661530654
Packing QTY 100



**Cable clips - C 5/20 mm natural -
box of 100 clips**
Art. No. 153003
EAN Number 5702661530036



**Cable clips - C 7-10 mm white -
box of 100 clips.**
Art. No. 153008
EAN Number 5702661530081



Stapler Arrow T25
Art. No. 153070
EAN Number 5702661530708



**Cable clips - C 7-10 mm black -
box of 100 clips.**
Art. No. 153080
EAN Number 5702661530807



**Staples T25 - 9/16» (14mm) -
White - box of 1000 pcs.**
Art. No. 153069
EAN Number 5702661530692



**Cable clips - C 11-13 mm black -
box of 100 clips.**
Art. No. 153082
EAN Number 5702661530821



**Staples T25 - 9/16» (14mm) -
Galv. - box of 1000 pcs.**
Art. No. 153071
EAN Number 5702661530715



TRIAX® Mounting Accessories

for dishes

Brackets for all your needs

TRIAX has all kinds of mounting brackets for dishes, alongside a complete range of accessories to ensure everything is mounted to perfection.

Triax 2561 stand

Art. No. 127100

EAN Number 5702661271007

MECHANICAL	
Clearance from wall	
Material	Galvanized steel
Tube dimension	Ø 50
Packing QTY	1
Weight net	
Remarks	For mounting dish on ground



Wall bracket type «J»

Art. No. 128050

EAN Number 5702661280504

MECHANICAL	
Clearance from wall	250 mm
Material	Galvanized steel
Tube dimension	Ø 25
Packing QTY	1
Weight net	
Remarks	incl. 2 plastic plugs



Wall bracket type «S»

Art. No. 128070

EAN Number 5702661280702

MECHANICAL	
Clearance from wall	250 mm
Material	Galvanized steel
Tube dimension	Ø 25
Packing QTY	1
Weight net	
Remarks	incl. 2 plastic plugs



Mast bracket - for TD110 Dish

Art. No. 140051

Packing QTY 2



Universal roof/wall bracket

Art. No. 300709

EAN Number 5702663007093

MECHANICAL	
Clearance from wall	450 mm
Material	Alu
Tube dimension	Ø 45
Wall plate dimension	mm
Packing QTY	1
Weight net	
Remarks	For mounting dish on roof/wall



Wall Bracket - EXA 192

Art. No. 131092

EAN Number 5702661310928

MECHANICAL	
Clearance from wall	250 mm
Material	Aluminium
Tube dimension	Ø 48
Wall plate dimension	155 x 155 x 3 mm
Packing QTY	10
Weight net	
Remarks	



Wall bracket - EXA 194

Art. No. 131094

EAN Number 5702661310942

MECHANICAL	
Clearance from wall	450 mm
Material	Aluminium
Tube dimension	Ø 48
Wall plate dimension	155 x 155 x 3 mm
Packing QTY	10
Weight net	
Remarks	



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TRIAX[®] HFC Equipment

takes your CATV network to the next level

Content	Page
Optical Fibre Equipment	
■ Hybrid Fibre Coax optical transmitters (HFC)	186-187
■ Hybrid Fibre Coax receivers and nodes (HFC)	188-193
Coaxial Equipment	
■ Broadband Distribution Amplifiers	196-201
■ Apartment Amplifiers	202-203
catTV system [TV over cat cabling]	204-206

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TRIAX® Cable TV Network Equipment

covers all the equipment to transmit TV and DOCSIS signals.



A choice of active components for your CATV network

Fibre Coax optical transmitters, receivers & nodes



An Optical Receiver converts the fibre-optic light signal into a traditional RF coax-based Distribution Signal (one-way = Downstream).

Optical Nodes provide a full Return Path channel from coax and back, via fibre-optic to the HeadEnd (two-way = Downstream and Upstream).

Power - & Line Amplifier



Broadband Amplifiers for CATV / SMATV amplify the full signal range of a cable TV network to compensate for the attenuations of the passive distribution components like cable, taps, splitters and subscriber outlets in the network.

The amps are specially designed for transmission of a large number of PAL and QAM channels with low intermodulation and low distortion.

The amplifiers for CATV networks consist of a forward path for the downstream signal, and the option to use a return path for up-streaming of the DOCSIS signal to implement Fast Internet Access.

Apartment Amplifier



Triax booster amplifiers give you the benefit of reliability, long lifetime and quick installation when you need to distribute the signal to more rooms.

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TRIAx[®] Optical Fibre Equipment

takes your CATV network to the next level

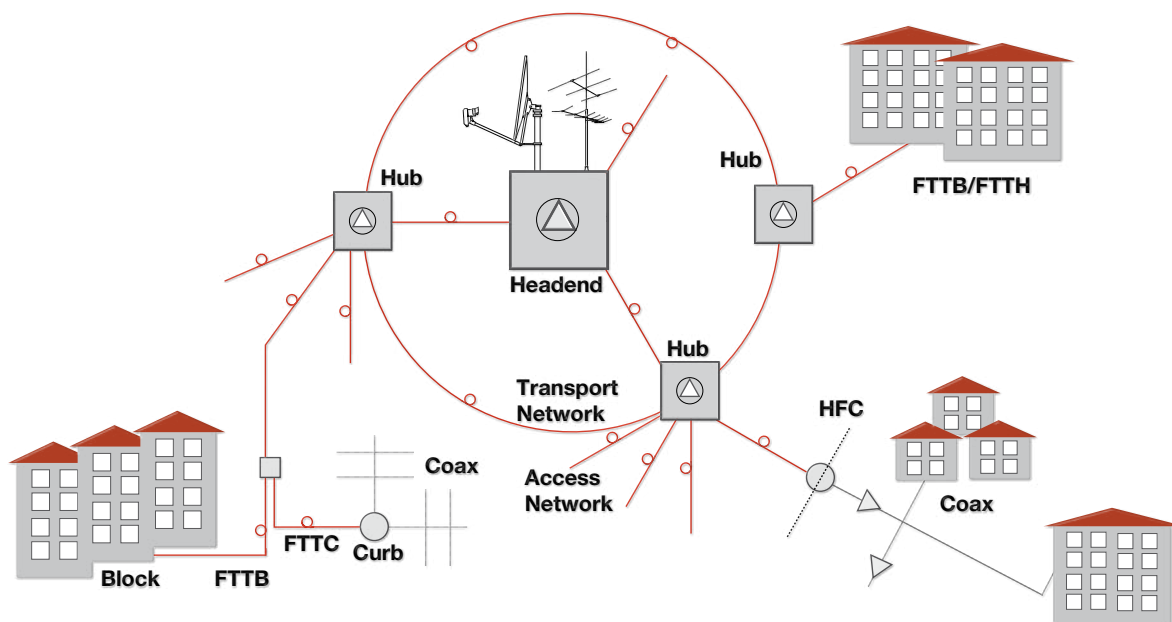
The fibre possibilities

Cable Television Networks (CATV) have a centralized Headend where the signals are processed and then distributed via a fibre optic infrastructure to sub headends. The centralized CATV headend processes the signals from Terrestrial

or Satellite sources converts them to RF and then to an optical output which is then sent out to the network. Internet and return path signals can be added to the fibre network at the main or sub headends. All of the fibre optic cables are

distributed and terminated at the optical receiver or node within the cabinet; this is referred to as fibre to the curb FTTC. The Optical nodes convert the signal from light back to RF so that they can be distributed to the home via coaxial cabling.

The following network structures are now commonplace:



CATV Optics

cover all active equipment to transmit TV broadcast and DOCSIS signals via fibre optic networks. Because of the sensitive high dense TV- QAM signals (QAM 64, 256,...) CATV optical transmitters and receivers need to work very linear with low distortions. The signals are transmitted transparently by amplitude-modulated light in the two optical wave lengths windows around 1310 and 1550 nm.

Optical transmission is used in HFC (Hybrid Fiber Coax) networks in combination with active coaxial parts of the access network or in deep fibre applications like FTTC (Fibre to Curb), FTTB (Fibre to the Building) and FTTH (Fibre to the Home). The devices are mostly designed on Headend site for installing in 19" racks and on subscriber site as compact Fibre Nodes and Fiber Receivers.

Optical Receivers and Nodes

An Optical Receiver converts the Fibre Optical Light signal into a traditional RF coax based Distribution Signal (one-way = Downstream), whereas an Optical Node in addition provides a full Return Path channel from coax and back via the Fibre Optic to the HeadEnd (two-way = Downstream and Upstream).

HFC solution

Situations where HFC (hybrid fibre/coax) is the right choice for you and your customers:

- when you want to distribute CATV
- when you want to keep an internet return path ready should your customers suddenly need one
- when you want to add cable TV to a SAT-IF installation

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TRIAX[®] Optical Fibre Equipment

Optical transmitter 1310 nm for HFC networks



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DVB-C
Cable

HD
TV

EASY
mounting

Warranty
2 Years

Common features

- Directly modulated and cooled high-performance DFB laser.
 - Automatic processor-controlled adjustment of the laser drive with regard to level and channel loading of various RF input signals produces the best transmission characteristics in terms of low intermodulation (CTB/CSO) and low noise.
 - Multichannel pre-distortion and GaAs amplifier technology also provide the best signal quality with low noise and low distortion.
- Two redundant power supply units.
 - 32-bit microprocessor for automatic monitoring and control of the laser ensures constant output level and long service life.
 - 19" 1 HE enclosure with 10TBase Ethernet (IEEE802.2) and RS 232 interface for external network monitoring.
 - Other output levels available on request.
 - RF connectors: F female.
 - Fibre optic connectors: SC/APC.

OTXS 06-1 Optical Transmitter

Art. No. 307507

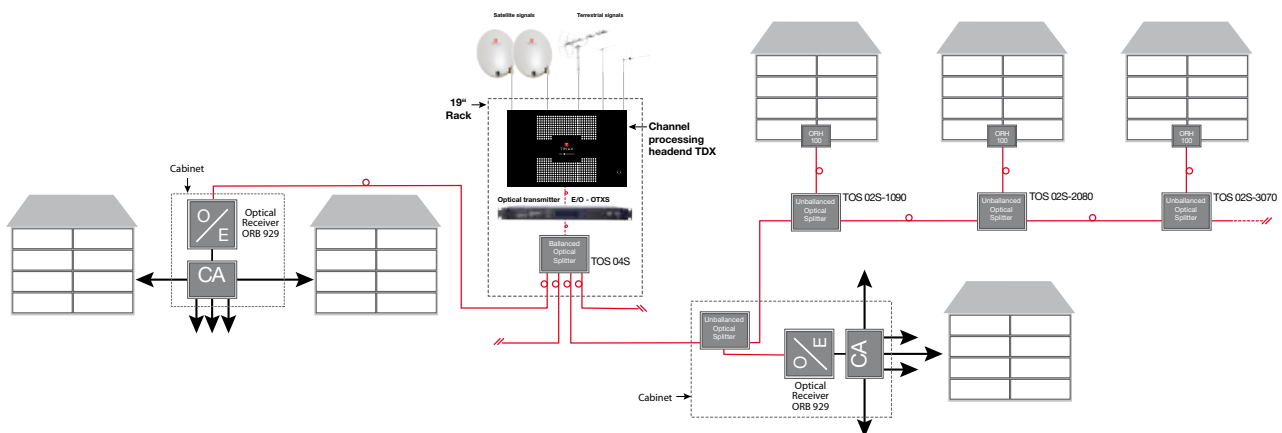
EAN Number
5702663075078



OTXS 20-1 Optical Transmitter

Art. No. 307521

EAN Number
5702663075214



TRIAX[®] Optical Fibre Equipment

Optical transmitter 1310 nm for HFC networks



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Type:	OTXS 06-1 Optical Transmitter	OTXS20-1 Optical Transmitter
Art. no.	307507	307521
OPTICAL CHARACTERISTICS		
Wavelength	1310nm	1310nm
Optical output power	8.0 (~6.0mW)dBm	13.0 (~20.0mW)dBm
CHARACTERISTICS		
Carrier to noise (Popt in= -1dBm, 84 ch PAL-D)	> 51.0dB	> 51.0dB
CSO - non linear distortion (Popt in= -1dBm, 84 ch PAL-D)	> 60.0dB	> 60.0dB
CTB - non linear distortion (Popt in= -1dBm, 84 ch PAL-D)	> 65.0dB	> 65.0dB
Laser type	DBF temp contr.	DBF temp contr.
RF-input level (@15...84 channels)	72...88dBμV	72...88dBμV
Test point [F-con]	-20.0dB	-20.0dB
FREQUENCY		
Frequency range	47...862/1003MHz	47...862/1003MHz
GAIN		
Relative intensity noise	≥ 155.0dBc/Hz	≥ 155.0dBc/Hz
RETURN LOSS		
Return Loss	> 14.0dB	> 14.0dB
ELECTRICAL		
Impedance	75Ω	75Ω
Linearity	± 0.75dB	± 0.75dB
OPERATIONAL		
Control unit	3 buttons, LCD 2-lines/16 char.	3 buttons, LCD 2-lines/16 char.
AC Supply voltage	110...253VAC	110...253VAC
Remote control	RJ45, TCP/IP, SNMP r/o	RJ45, TCP/IP, SNMP r/o
Software update	RS232, 9-pin	RS232, 9-pin
CONNECTORS		
Input connectors (RF)	F-connector	F-connector
Output connectors (for Fibre)	SC/APC	SC/APC
MECHANICAL		
Product Depth	380mm	380mm
Product Width	480mm	480mm
Product Height	44mm	44mm
Housing	19", 1RU	19", 1RU
Packing QTY	1	1

TRIAX[®] Optical Fibre Equipment

Optical Headend components and systems



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

DVB-C
Cable

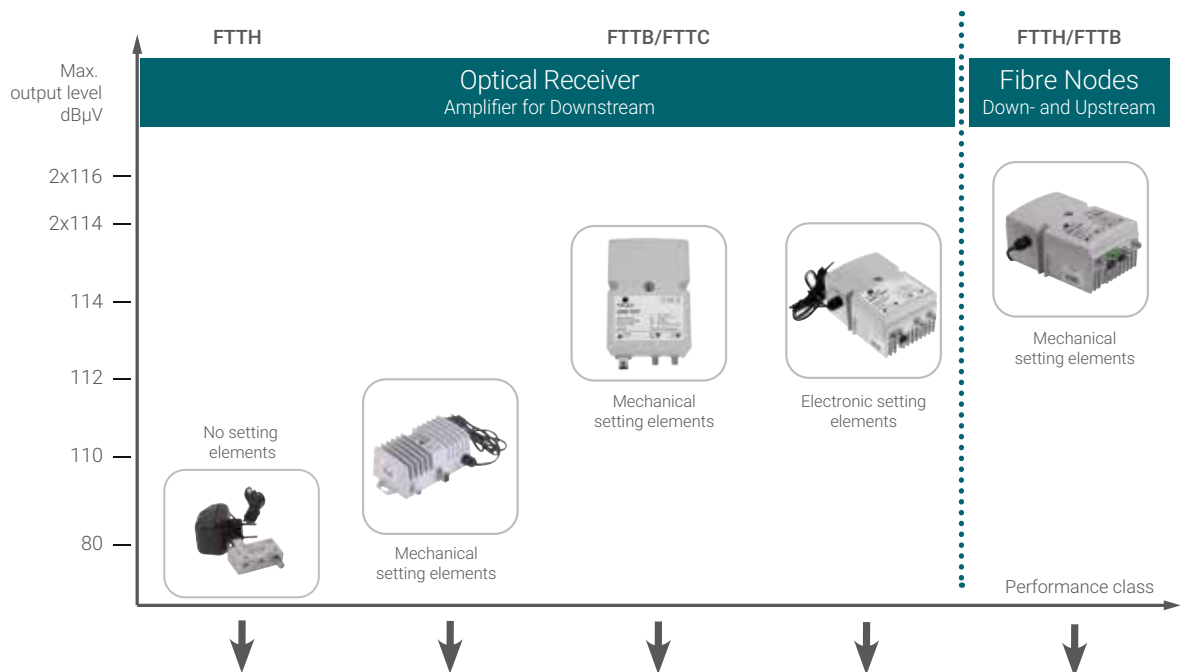
HD
TV

EASY
mounting

Warranty
2 Years

TRIAX supports your HFC projects also with a wide assortment of special Optical Fibre Headend equipment like:

- 1550 nm transmitters for transmission over long distances
- DWDM transmitters for FTTx applications
- Erbium Doped Fibre Amplifiers (EDFA)
- Return path receiver systems
- Combined CATV+SAT-IF transmitters
- The products are ready for DOCSIS 3.1 as well



Variant Receiver/Fibre Node	FTTH	FTTB/HFC	FTTB/HFC	FTTB/HFC	Allround fibre node
Delivery	*	**	*	**	*
1 Optical input, local feed	ORH 100	ORB 923	ORB 929	ORB 729/1	ORB 1923
Special features/use in	FTTH	FTTB/HFC	FTTB/HFC	FTTB/HFC	Allround fibre node

* From stock
** Order for projects

Overview

Optical Receivers and Fibre Nodes

Modules

Variant Receiver/Fibre Node					
Delivery	*	**	*	**	*
1 Optical input, local feed	ORH 100	ORB 923	ORB 929	ORB 729/1	ORB 1923
Special features/use in	FTTH	FTTB/HFC	FTTB/HFC	FTTB/HFC	Allround fibre node
Module					
Control + Monitoring locally via HotSwap remote via SNMP				TCM 729	
Sender returnway	-	-	-	-	OTBM... *)
Output modules	-	-	-	-	-
Tap					TSTI 01 **)
Splitter					TJMP 01 **)
Bridge					

*) Optical receiver and transmitter module for fibre nodes

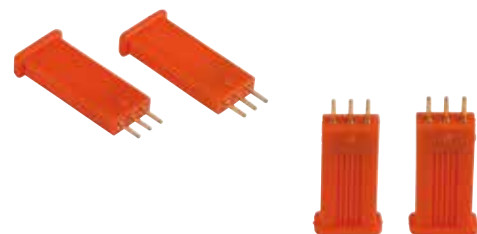
- OTBMs are return channel modules for use in ORB1923



Return path transmitter modules for use in ORB 1923	Wavelength	Unit	Art. No.
OTBM 1310nm DFB, 3dBm	1310	nm	307811
OTBM 1610nm DFB, CWDM, 3dBm	1610	nm	307832

**) Filter-, Splitter and Taps

- TJMP is a bridge module for use in ORB 1923
- TSTI is a distributor module for use in ORB 1923



Plug-in modules to configure the RF output (required min 1 x)	RF output 1 Attenuation	RF output 2 Attenuation	Art. No.
TJMP 01, Bridge, Oneway	0 dB	∞	307710
TSTI 01, 2-Way - Splitter modul	-3.5 dB	-3.5 dB	307711

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SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

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TRIAX® Fibre Optics

Optical Receiver FTTB for multi-dwelling homes - 1 way



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& FIBRE
RECEPTION

CABLE TV
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(CCTV)

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The ORB 923

is an optical receiver in a compact die-cast housing. The relatively high output level enables very cost effective FTTB installations in medium sized residential buildings. Optical level signalling and automatic gain control provide the correct as well as constant RF output level within a wide optical input level window. Settings are made using reliable plug-in pads.

- AGC for constant RF output level
- 3-colour LED for rapid indication of the correct optical input level
- Level control and equalizer adjusted via JXP plug-in pads *)
- High output level 110 dBµV
- Low power consumption

*) Model ORB 823 with potentiometer available on request

The ORB 929

is a very compact high-performance optical receiver for cable TV systems without a return path. Its high degree of control enables it to be used as an optical network unit in both FTTC and FTTB constellations as well as in HFC networks with subsequent coaxial amplifiers on the line. Easy indication of optical input level via LED display. Reliable long-term operation by use of JXP pads to make adjustments as well as regulation of optical level fluctuation via AGC.

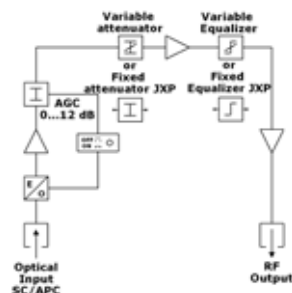
- LED display (2-digit, 7-segment) for accurate indication of optical input level
- Level control and equalizer adjusted via JXP attenuator pad*)
- Level control 0...20 dB
- Equalizer 0...20 dB
- External test point for output level
- High output level 114 dBµV

ORB 923 - optical receiver

Art. No. 307563
EAN Number
5702663075634



ORB 923
block diagram

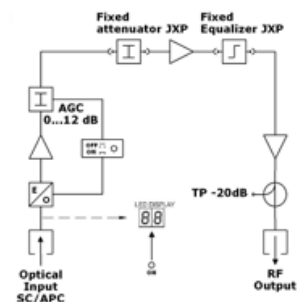


ORB 929 - optical receiver

Art. No. 307568
EAN Number
5702663075689



ORB 929
block diagram



TRIAX® Fibre Optics

Optical Receiver FTTB for larger buildings and HFC networks



ORH 100 - optical FTTB receiver

Art. No. 307565

EAN Number
5702663075658



ORH 100 optical receiver

is a highly cost effective optical network termination for an individual residence. The receiver's output is directly connected to outlets via passive coaxial distribution. Simple setting up and stable operation via AGC and LED display. Receiver is supplied in a plastic hood with a plug-in power supply.

- AGC for constant RF output level
- 3-colour LED for rapid indication of the correct optical input level
- Compact and space saving
- Low power consumption
- Includes 9V power supply
- SC/APC connection at optical input
- RF output level 80 dBμV

Type:	ORB 923 optical receiver	ORB 929 optical receiver	ORH 100 optical FTTB receiver
Art. no.	307563	307568	307565
OPTICAL CHARACTERISTICS			
Optical return loss	>40.0dB	>40.0dB	>40.0dB
Eq. Input Noise Current	pA/√Hz	8.0pA/√Hz	6.5pA/√Hz
Optical input power	-8.0 ... +1.0dBm	-10.0...+1.0/max. +3.0dBm	-10.0 ... +1.0dBm
Reception wavelength	1100...1650nm	1100...1650nm	1100...1650nm
CHARACTERISTICS			
RF-output level (DIN 45004 B)	123.0dB	129.0dB	
RF-output level @42 ch CENELEC CTB <60 dBc	110.0dB	114.0dB	80.0dB
9 dB slope 3.5% CSO <60 dBc	110.0dB	114.0dB	80.0dB
AGC (Automatic Gain Control)	-6.0...0dB	-6.0...0dB	-6.0...0dB
Test point		-20dB	
FREQUENCY			
Frequency range	47...862MHz	47...862MHz	47...862MHz
GAIN			
Gain flatness	± 0.75dB	± 0.75dB	± 1.0dB
LOSS			
Attenuator/Equalization	JXP plug-in 0...20	JXP plug-in 0...20	
RETURN LOSS			
Return Loss	> 18dB	> 18dB	> 18dB
ELECTRICAL			
Number of receivers	1	1	1
OPERATIONAL			
DC Operating voltage			9VDC
DC Current consumption (typ.)			150mA
External PSU			Included
Operating temperature range	-20 ... +55°C	-20 ... +55°C	-20 ... +55°C
AC Supply voltage	180...253 / 50...60HzVAC		
Power Consumption (typ.)	5.5W	13.0W	< 1.0W
CONNECTORS			
Connector Optical	Optical - SC/APC	Optical - SC/APC	Optical - SC/APC
Input connectors (from transmitter)	SC/APC	SC/APC	SC/APC
Output connectors (for RF)	F-female type	F-female type	F-female type
MECHANICAL			
Product Depth	56mm	75mm	20mm
Product Width	96mm	155mm	60mm
Product Height	155mm	107mm	50mm
IP Housing protection class	IP 40	IP 64	IP 40
Packing QTY	1	1	1
Weight	0.76kg	1.1kg	0.1kg
Optical power in indication LED	Orange: Pin <-6.0 Green : -6.0 <Pin < 0 Red : Pin >0		Optical power indicator: Orange: Pin <-6.0 Green : -6.0 <Pin < 0 Red : Pin >0

TERRESTRIAL
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SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

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OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

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(CCTV)

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TRIAX® Fibre Optics

Fibre Node FTTB - 1 and 2 way



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& FIBRE
RECEPTION

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ORB 729 Fibre Node

Optical receivers of the ORB 7-series are very compact high-performance optical network units for FTTB-/FTTC and HFC cable TV systems without a return path.

Uninterruptible, electronic settings and monitoring of device parameters either on the device or via Ethernet interface.

Professional operating and monitoring features:

- Locally on the device - hot-swap module TCM 729 via keyboard
- Electronic level control and equalizer by using control module TCM 729 with 3 digit LED display and 3 cursor button
- Second RF output, configurable via plug-in module TST1
- Monitoring parameters: optical input- path and level, input signal switching hysteresis, output level, temperature, attenuation, equalizer and more
- Output level 114 dB μ V

ORB 729/1 - fibre nodes

Art. No. 307700

EAN Number
5702663077003



TCM 729 module

Art. No. 307708

EAN Number
5702663077089



ORB 1923

is a very compact high-performance optical network unit for two fibre way networks with a return path. Its high degree of control and free selection of the return path laser modules enables it to be used as an optical network unit in both FTTC and FTTB constellations as well as in HFC networks with subsequent coaxial amplifiers down the line. Reliable long-term operation by using JXP pads to make settings as well as regulation of optical level fluctuations via AGC.

- 3-colour LED to indicate the optical input signal level
- Level control and equalizer adjusted via JXP attenuator pad
- External test point for output level
- Large selection of laser modules (order separately)
- High output level 109 dB μ V

ORB 1923 - Optical node

Art. No. 307717

EAN Number
5702663077171



OTBM 1310FP Optical return module for fibre nodes

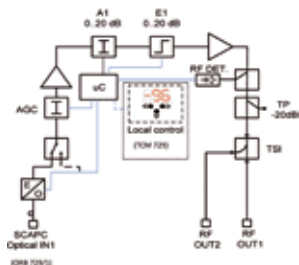
- OTBMs are return channel modules for use in ORB1923



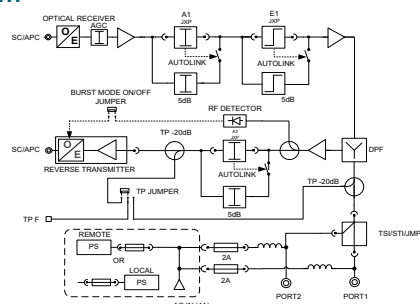
TRIAx® Fibre Optics

Allround Fibre Node FTTB for multiple dwellings and HFC networks

ORB 729/1
block diagram



ORB 1923
block diagram



Type:	ORB 729/1 optical receiver	ORB 1923 Optical node	TCM 729 Local ctrl. module
Art. no.	307700	307717	307708
OPTICAL CHARACTERISTICS			
Reception wavelength	1100...1650nm	1100...1650nm	
Optical return loss	>40.0dB	>40.0dB	
Eq. Input Noise Current	6.5pA/√Hz	<8.0pA/√Hz	
Optical input power	-10.0... +1.0 / max. +3.0dBm	-9.0...+1.0 / max. +3.0dBm	
CHARACTERISTICS			
RF-output level (DIN 45004 B CTB <60 dBc)	114.0dB	123.0dBμV	
1310 nm @- dBm,9 dB slope 3.5% CSO <60 dBc	114.0dB	109.0dBμV	
AGC (Automatic Gain Control)	-6.0...0dB	-6.0...0dB	
Optical power indicator range accuracy (electronic)	± 0.1dBm		
Test point	-20dB	-20dB	
FREQUENCY			
Frequency range	47...862MHz	87...1006MHz	
Frequency return path (depending on modules)		5...65MHz	
Frequency response		± 1.0dB	
GAIN			
Gain flatness	± 0.75dB		
LOSS			
Attenuator/Equalization		JPX plug in, 0...20dB	
RETURN LOSS			
Return Loss	> 18 (40 MHz)-4.5/Octave dB	> 18dB	
ELECTRICAL			
Number of receivers	1	1	
OPERATIONAL			
Return gain		Return gain	
Level output stability in the AGC mode	± 1.0dB		
Interstage attenuator/ Interstage equalizer	0...15, step 1dB	± 1.0dB	
Operating temperature range	-20 ... +55°C	-20 ... +55°C	
AC Supply voltage	180...253 / 50...60HzVAC	180...253VAC	
Power Consumption (typ.)	< 13.5W	9W	
CONNECTORS			
Connector Optical	Optical - SC/APC	Optical - SC/APC	
Input connectors (from transmitter)	SC/APC		
Output connectors (for RF)	2 x F-female	F-female type	
MECHANICAL			
Product Depth	75mm	75mm	
Product Width	155mm	107mm	
Product Height	107mm	155mm	
IP Housing protection class	IP 64	IP 64	
Packing QTY	1	1	
Weight	1.1kg	1.1kg	
Optical power in indication LED		Orange: Pin <-7.0 Green: -7.0 <Pin < 0 Red: Pin >0	

- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX

TRIAX® Coax Amplifiers

Active components for your CATV/SMATV in-door network



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
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The perfect choice for everybody!

The TRIAX GHV/GPV ranges offer great solutions for TV house distribution systems of almost every size. The products boast state-of-the-art technological design, excellent transmission qualities and an exceptionally high adjustability/variability.

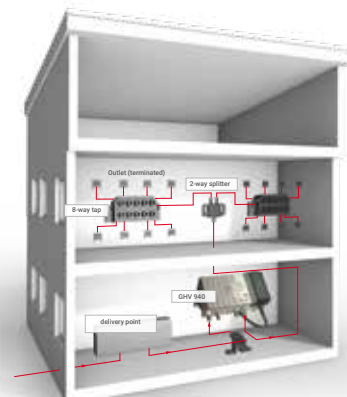
The readable adjusters allow the user to set up values calculated during the planning phase when placing the amplifier into operation. This also helps in case the amplifier should need to be serviced as all adjustments previously made can easily be transferred to a replacement. As calibration of the distribution system thus will be quicker and easier you can save valueable time and money.

No matter which amplifier you choose - you will always profit by the excellent product quality and the good technical service TRIAX is known for.

Finding the right amplifier is easy.

You can choose from two series with different amplifications and corresponding additional characteristics. The GHV 500 series is designed as a low noise coaxial distribution amplifier for use in small headend-based communal installations (MATV/SMATV).

The GHV/GPV 900 series can be used as a house amplifier in cable television distribution networks (CATV) with a multimedia-enabled return path. As the return path can optionally be switched off the amplifiers of the GHV 900 are also perfect for use with VHF band I. In case the network will later be upgraded by adding return path services like internet access the return path can easily be re-activated by replugging the jumpers.



TRIAX[®] Broadband Distribution Amplifier

– for all your applications

A selection of the best

TRIAX GHV 520

AMPLIFIER TYPE	SERIE	GAIN (in dB) max. Output Level (42 ch CENELEC in dBμV)					YOUR DEVICE Type
		20	30	35	40	41	
House amplifier Output levels in dBμV	GHV	100	103	105	109	114	
MATV/SMATV - system without return path	500	■					TRIAX GHV 520
	500		■				TRIAX GHV 530
	900	■					TRIAX GHV 920
CATV TV - system with return path	900		■				TRIAX GHV 930
	900			■			TRIAX GHV 935
	900				■		TRIAX GHV 940
	950					■	TRIAX GPV 950

GHV 500



GHV 900



GPV 950



COMMON FEATURES	500 SERIE	900 SERIE	950 SERIE
High output level	■	■	■
Optimised 1 GHz technology	■	■	■
16 step rotary switch for attenuation	■	■	■
16 step rotary switch for equalization	■	■	■
Interstage equalization	■ (3 dB fix)	■ (variable)	■ (variable)
VHF-Band I	■	■ (variable)	
Selectable return path 5-65 MHz		■ (active/passive/off)	■
Reliable all-on-board return path technology		■	■
Measurement port -20 dB for input and output	■	■	■
Extensive ESD- and surge protection	■	■	■
F-connectors (female)	■	■	■
Built-in energy-saving mains-fed power supply	■	■	■
Remote feeding psu model			■ (via RF input)
Functional die-cast housing	■	■	■

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

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(CATV)

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TRIAX® Broadband Distribution Amplifier

GHV 500 series - 1 way



TERRESTRIAL
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GHV 500 Series

The GHV 500 amplifier series is designed as a low noise coaxial distribution amplifier for use in small head-end-based communal installations where no return path is needed. Setting up the amplifier is made easy by the rotary switch and the interstage equalization of 3 dB. Measurement ports at input and output also help to level out the forward path.

Choose this coax amplifier and enjoy these benefits:

- Place it on a wall inside your house or in a cabinet at the curb
- High output level
- Rotary switch for attenuation
- Interstage equalization fix 3 dB
- F-connectors (female)
- Available versions:
 - GHV 520 with 20dB Gain
 - GHV 530 with 30dB Gain

GHV 520 Broadband Distribution Amplifier, no RC, Gain 20dB, 47...1006MHz

Art. No. 323138

EAN Number
5702663231382



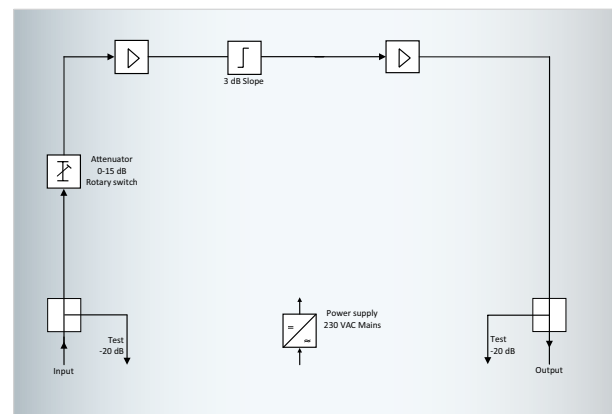
GHV 530 Broadband Distribution Amplifier, no RC, Gain 30dB, 47...1006MHz

Art. No. 323142

EAN Number
5702663231429

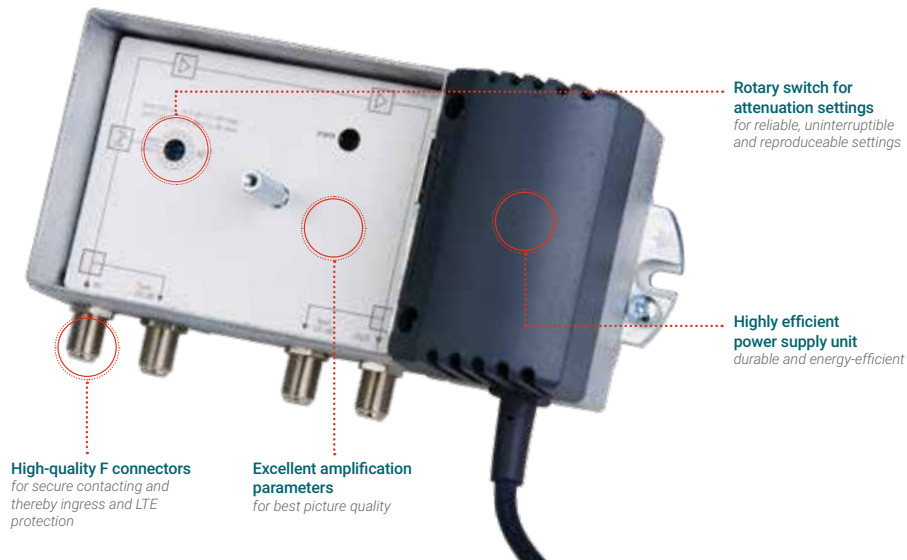


GHV 530 block diagram



TRIAx[®] Broadband Distribution Amplifier

House amplifier for small buildings



Type:	GHV 520 Amplifier no RC	GHV 530 Amplifier no RC
Art. no.	323138	323142
CHARACTERISTICS		
Output level forward - CSO (42ch.@862 MHz)	101 dBμV	102dBμV
Output level forward - CTB (42ch.@862 MHz)	104 dBμV	105dBμV
Test point - input (bi-directional)		-20 dB
Test point - output (uni-directional)		-20 dB
FREQUENCY		
Frequency range	47...1006MHz	
GAIN		
Gain forward (@1006 MHz)	21 dB	30 dB
Noise figure - forward	4.5 dB	5.5 dB
LOSS		
Attenuation low/high jumper	0...15dB	0...22.5dB
Interstage equalizer/slope (jumper)	3 fixdB	3 fixdB
Return loss @40MHz,-1.5 dB oct.(forward)	> 18.0dB	> 18.0dB
ELECTRICAL		
Impedance	75Ω	75Ω
Linearity (@47/87..1006 MHz) jumper	± 1.0dB	± 1.0dB
OPERATIONAL		
Class	II	II
Operating temperature range	-25...+55°C	-25...+55°C
AC Supply voltage	190...264VAC	190...264VAC
Power Consumption (typ.)	<3 W	<3 W
CONNECTORS		
Connector Type (input/output) - test point	F-female/F-female	F-female/F-female
MECHANICAL		
Product W x H x D (mm)	170 x 90 x 65 mm	170 x 90 x 65 mm
IP Housing protection class	IP 20	IP 20
Packing QTY	1	1
Weight (kg)	0.65kg	0.65kg
Reference standards	EN 60728-3 - Class 2 / EN 307728-11 / EN 60065 / EN 50083-2	

TERRESTRIAL
RECEPTION

SATELLITE
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CABLE TV
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TRIAx® Broadband Distribution Amplifier

GHV 900 series - 2 way



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SATELLITE
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RECEPTION

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GHV 900 Series

features flexibly configurable return paths. Upon delivery, the implemented return path amplifiers are activated at maximum gain but can be switched to "passive" or "off" via a jumper.

When the return path is switched off the transmission bandwidth in forward path is expanded by VHF band I. Return path basic gains are adjusted to the specific forward path gains of the different types. Additionally, a jumper

in the pre-stage can be used to lowered the return path gain by 6 dB (except with GHV 920) without affecting the excellent transmission performance regarding noise and modulation capability. 16 step rotary switches, far superior to normal spindle controller regarding reliability and log-term stability, and jumpers allow for an easy, uninterrupted and reproduceable setting of attenuation, equalization and cable simulation. Measurement ports at input and output also support an exact leveling of forward and return path.



**GHV 920 Amplifier,
w/RC, Gain 20dB,
47...1006MHz**

Art. No. 323150
EAN Number
5702663231504



**GHV 940 Amplifier,
w/RC, Gain 40dB,
47...1006MHz**

Art. No. 323166
EAN Number
5702663231665



**GHV 930 Amplifier,
w/RC, Gain 30dB,
47...1006MHz**

Art. No. 323158
EAN Number
5702663231580

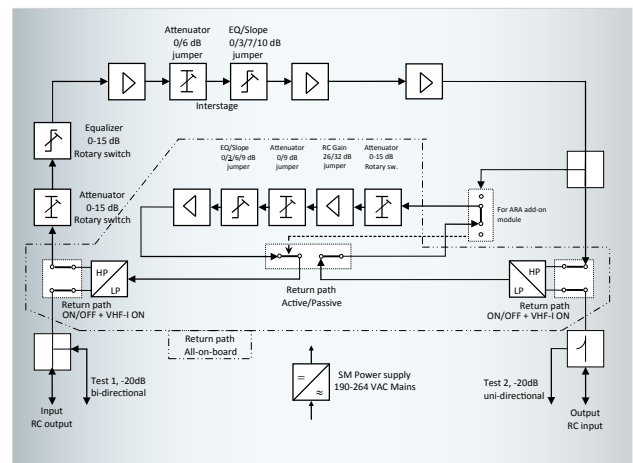


**GHV 935 Amplifier,
w/RC, Gain 35dB,
47...1006MHz**

Art. No. 323162
EAN Number
5702663231627



GHV 930 block diagram

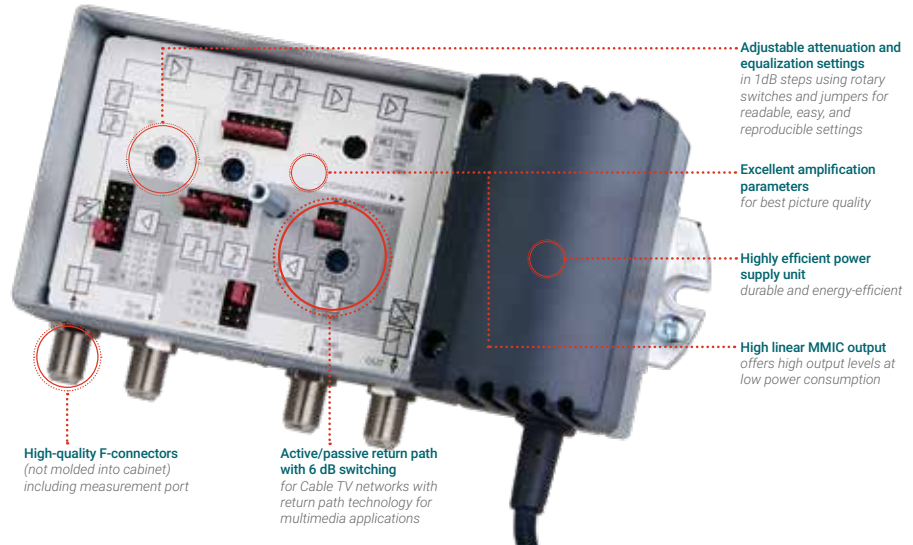


TRIAx[®] Broadband Distribution Amplifier

for small to mid-sized buildings with active/passive return path

Choose this coax amplifier and enjoy these benefits:

- All-on-board: active/passive return path technology for 6 dB switching (GHV 920: 20 dB) - no performance loss and no additional modules
- Active return channel
- Optional plug-in module to enable the automatic return path activation
- Available versions:
 - GHV 920 with 20dB
 - GHV 930 with 30dB
 - GHV 935 with 35dB
 - GHV 940 with 40dB



Type:	GHV 920 Amplifier	GHV 930 Amplifier	GHV 935 Amplifier	GHV 940 Amplifier
Art. no.	323150	323158	323162	323166
CHARACTERISTICS				
Output level forward - CSO (42ch.@862) Slope 0/7 dB	98/100 dB μ V	103/105dB μ V	103/105dB μ V	107/109dB μ V
Output level forward - CTB (42ch.@862) Slope 0/7 dB	98/100 dB μ V	103/105dB μ V	103/105dB μ V	107/109dB μ V
Output level return path- 16 QAM	120dB μ V	120dB μ V	120dB μ V	120dB μ V
Test point - input (bi-directional)			-20 dB	
Test point - output (uni-directional)			-20 dB	
FREQUENCY				
Frequency range		47...1006/ 85...1006MHz		
Frequency range return path		5...65MHz		
GAIN				
Gain forward (@1006 MHz)	20 dB	30 dB	35 dB	40 dB
Gain return (@60 MHz) jumper	20 dB	22/28dB	24/30dB	26/32dB
Noise figure - forward	6.5 dB	6.5 dB	6.5 dB	6.5 dB
Noise figure - return path	5.0 dB	5.0 dB	5.0 dB	5.0 dB
LOSS				
Attenuation low/high jumper	0...15dB	0...15dB	0...15dB	0...15dB
Input attenuator - 1dB step rotary	0...15dB	0...15dB	0...15dB	0...15dB
Input equalizer - 1dB step rotary	0...15dB	0...15dB	0...15dB	0...15dB
Interstage attenuation (jumper)	0/6 dB	0/6 dB	0/6 dB	0/6 dB
Interstage equalizer/slope (jumper)	0/3/7/10dB	0/3/7/10dB	0/3/7/10dB	0/3/7/10dB
Input attenuator (return) - 1dB step rotary	0...15dB	0...15dB	0...15dB	0...15dB
Interstage equalizer/slope (return) jumper	0/3/6/9dB	0/3/6/9dB	0/3/6/9dB	0/3/6/9dB
Return loss @40MHz,-1.5 dB oct.(forward)	> 18.0dB	> 18.0dB	> 18.0dB	> 18.0dB
Return loss @40MHz,-1.5 dB oct.(return)	> 18.0dB	> 18.0dB	> 18.0dB	> 18.0dB
ELECTRICAL				
Impedance	75 Ω	75 Ω	75 Ω	75 Ω
Linearity (@47/87..1006 MHz) jumper	\pm 1.0dB	\pm 1.0dB	\pm 1.0dB	\pm 1.0dB
Linearity (@5...65 MHz return) jumper	\pm 1.0dB	\pm 1.0dB	\pm 1.0dB	\pm 1.0dB
OPERATIONAL				
Class	II	II	II	II
Operating temperature range	-25...+55°C	-25...+55°C	-25...+55°C	-25...+55°C
AC Supply voltage	190...264VAC	190...264VAC	190...264VAC	190...264VAC
Power Consumption (typ.)	<5W	<7W	<9W	<11W
CONNECTORS				
Connector Type (input/output) - test point	F-female/F-female	F-female/F-female	F-female/F-female	F-female/F-female
MECHANICAL				
Product W x H x D (mm)	170 x 90 x 65 mm	170 x 90 x 65 mm	170 x 90 x 65 mm	170 x 90 x 65 mm
Housing protection class	IP 20	IP 20	IP 20	IP 20
Packing QTY	1	1	1	1
Weight (kg)	0.65kg	0.65kg	0.65kg	0.75kg
Reference standards	EN 60728-3 - Class 2 / EN 307728-11 / EN 60065 / EN 50083-2			

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

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SURVEILLANCE (CCTV)

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TRIAX® Broadband Distribution Amplifier

GHV 950 series - 2 way



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GPV 950/950L

are high output Distribution Amplifiers for use primarily in CATV distribution networks in multi-dwelling premises. Basic gain switching permits configuration of the amplifiers as line extenders or as cascade amplifiers in a trunk position.

All functional parts and setting elements are implemented on the printed board and additional external accessories are not required to configure and operate these amplifiers.



GPV 950 amplifier w/active RC, 85...1006MHz

Art. No. 323170

EAN Number
5702663231702



GPV 950 L amplifier - Line fed - w/ active RC, 85...1006MHz

Art. No. 323174

EAN Number
5702663231740



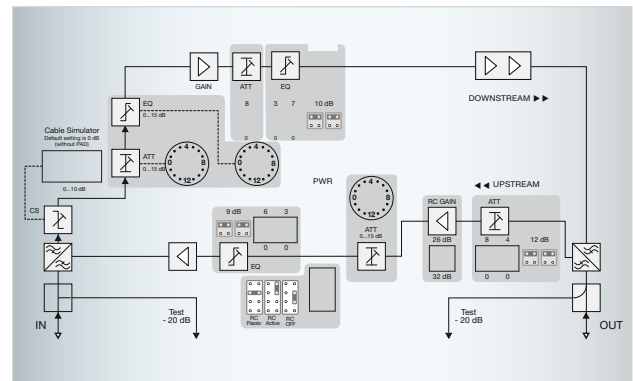
Choose this coax amplifier and enjoy these benefits:

- One-board technology: all functionality implemented
- Rotary switches in 1 dB steps for precise attenuation/ equalization setting
- Downstream: 85...1006 MHz @ max. output level 112 dB μ V
- Upstream: 5-65 MHz, max. output 120 dB μ V (high load performance for DOCSIS 3.1)
- Basic gain selectable via jumpers
- Integrated cable simulator by Pad*

- * Pad JXP-OT, 1-10 dB, is available as option, e.g.
- 4 dB, JXP-OT4, Order No. 322204
- 7 dB, JXP-OT7, Order No. 322207
- 10 dB, JXP-OT10, Order No. 322210.

Further attenuation values available upon by request.

GHV 950 block diagram



TRIAX[®] Broadband Distribution Amplifier

High Output Amplifier with active return path

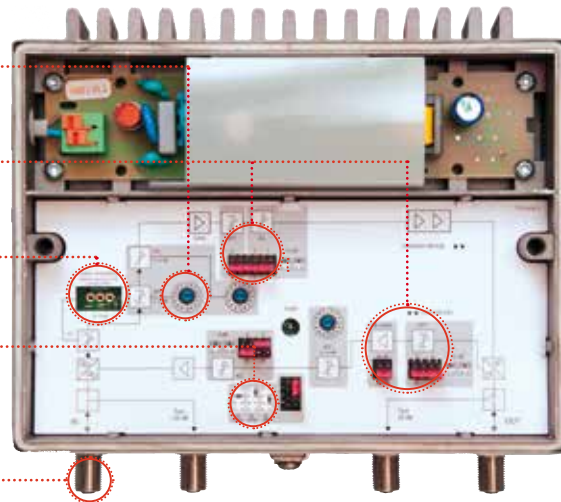
Rotary Switches
for readable, easy and reproducible attenuation and equalization settings in 1 dB steps

Versatile configuration options
for optimizing gain settings via jumpers

Integrated Cable simulator
activated by standard PAD (1...10 dB) plug

Low distortion pre- and power stages
without signal quality degradation

High-quality F connectors
Reliable interface protects against noise interference. Waterproof housing IP 65



Type:	GPV 950 amplifier with active RC	GPV 950 L amplifier Line fed with active RC
Art. no.	323170	323174
CHARACTERISTICS		
Output level forward - CSO (42ch.@862 MHz) Slope 0/7 dB	112/114 dB μ V	112/114 dB μ V
Output level forward - CTB (42ch.@862 MHz) Slope 0/7 dB	112/114 dB μ V	112/114 dB μ V
Output level return path- 16 QAM	120dB μ V	120dB μ V
Test point - input (bi-directional)		-20 dB
Test point - output (uni-directional)		-20 dB
FREQUENCY		
Frequency range	85...1006MHz	
Frequency range return path	5...65MHz	
GAIN		
Gain forward (@1006 MHz)	41/33 dB	41/33 dB
Gain return (@60 MHz) jumper	20 dB	32/26dB
Noise figure - forward	6.5 dB	6.5 dB
Noise figure - return path	5.0 dB	5.0 dB
LOSS		
Cable simulator (Pads, optional)	1...10dB	1...10dB
Input attenuator - 1dB step rotary	0...15dB	0...15dB
Input equalizer - 1dB step rotary	0...15dB	0...15dB
Interstage attenuation (jumper)	0/8 dB	0/8 dB
Interstage equalizer/slope (jumper)	0/3/7/10dB	0/3/7/10dB
Input level control return (jumper)	0/4/8/12dB	0/4/8/12dB
Interstage attenuator (return) - 1dB step rotary	0...15dB	0...15dB
Interstage equalizer/slope (return) jumper	0/3/6/9dB	0/3/6/9dB
Return loss @ 40MHz,-1.5 dB oct.(forward)	> 18.0dB	> 18.0dB
Return loss @ 40MHz,-1.5 dB oct.(return)	> 18.0dB	> 18.0dB
ELECTRICAL		
Impedance	75 Ω	75 Ω
Linearity (@ 87..1006 MHz) jumper	\pm 1.0dB	\pm 1.0dB
Linearity (@ 5...65 MHz return) jumper	\pm 1.0dB	\pm 1.0dB
OPERATIONAL		
Class	II	II
Operating temperature range	-25...+55 $^{\circ}$ C	-25...+55 $^{\circ}$ C
AC Supply voltage	190...264VAC	28...65 VAC (via RF input)
Power Consumption (typ.)	<15 W	<15 W
CONNECTORS		
Connector Type (input/output) - test point	F-female/F-female	F-female/F-female
MECHANICAL		
Product W x H x D (mm)	180 x 145 x 70 mm	180 x 145 x 70 mm
IP Housing protection class	IP 65	IP 65
Packing QTY	1	1
Weight (kg)	1.60kg	1.60kg
Reference standards / ROHS compliant	EN 60728-3 - Class 2 / EN 307728-11 / EN 60065 / EN 50083-2 /Yes	

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

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SURVEILLANCE (CCTV)

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TRIAX® Apartment Amplifier

IFA series



TERRESTRIAL
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(CATV)

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Indoor amplifier for your apartment

An amplifier for MATV/SMATV low channel density distributes a limited number of powerful cable TV signals to your home.

Choose this coax amplifier and enjoy these benefits:

- Few but powerful TV-signals/channels – which also means elimination of most disturbance and background noise
- Indoor amplifier – always within easy reach inside your house/apartment
- Need to attach another TV set? - there is an IFA solution for you.



IFA 213 amplifier - 1 output - w/ RC 5....65, Gain 0...20dB

Art. No. 339213

EAN Number
5702663392137



IFA 384, 4-port apartment amp

Art. No. 339384

EAN Number
5702663393844



IFA 219 amplifier - 1 output, Gain 0...20dB

Art. No. 339219

EAN Number
5702663392199



IFA 388, 8-port apartment amp

Art. No. 339388

EAN Number
5702663393882



IFA 220 amplifier - 2 outputs, Gain 0...17dB

Art. No. 339220

EAN Number
5702663392205

TRIAX[®] Apartment Amplifier

IFA series



Type:	IFA 213 amplifier w/ RC	IFA 219 amplifier	IFA 220 amplifier	IFA 384 4-port apartment amp	IFA 388 8-port apartment amp
Art. no.	339213	339219	339220	339384	339388
CHARACTERISTICS					
Input level				60...78dB μ V	60...78dB μ V
Linearity return	± 1.0 dB				
Max. output level				93 (IMD3.)dB μ V	93 (IMD3.)dB μ V
Output level CSO @ 60 dB IMD	96.0dB μ V	96.0dB μ V	92.0dB μ V		
Output level CTB @ 60 dB IMD (42 ch) flat	96.0dB μ V	96.0dB μ V	96.0dB μ V		
Output level IMD 2, EN 50083-3	104.0dB μ V	104.0dB μ V	100.0dB μ V		
Output level IMD 3, EN 50083-5	112.0dB μ V	112.0dB μ V	108.0dB μ V		
FREQUENCY					
Frequency range	87...862MHz	47...862MHz	47...862MHz	87...1006MHz	87...1006MHz
Frequency range return path	5...65MHz				
GAIN					
Gain	0...20dB	0...20dB	0...17dB	12dB	12dB
Noise figure	< 6.0 (typ. 5.5)dB		< 6.0dB	<7dB	<7dB
LOSS					
Attenuation	0...18dB	0...18dB		0/6/12 (0dB default)dB	
Equalization			0-18		
Through loss return	1.0dB				
ISOLATION					
Isolation				>40dB	>40dB
RETURN LOSS					
Return Loss				>18 (@40...1000MHz) (@40MHz -1.5dB/Oct(min. 10dB))dB	
ELECTRICAL					
Impedance	75 Ω				
Linearity	± 1.5 dB				
OPERATIONAL					
Certification	CE				
Operating temperature range	0...+50°C	0...+50°C	0...+50°C	-10...+40°C	-10...+40°C
AC Supply voltage	230 \pm 10%VAC	230 \pm 10%VAC	230 \pm 10%VAC	100...264 / 50...60HzVAC	
Power Consumption (typ.)	3.0W	3.0W	3.0W	3,1W	3,1W
CONNECTORS					
Connector Type	F-female				
Number of inputs	1	1	1	1	1
Number of outputs	1	1	2	4	8
MECHANICAL					
Product Width	118mm	118mm	118mm	255mm	255mm
Product Depth	61mm	44mm	61mm	110mm	110mm
Product Height	44mm	61mm	44mm	53mm	53mm
Main Material					
Packing QTY	1				
Weight (kg)	0.475kg	0.4kg	0.4kg	0.65kg	0.65kg

TERRESTRIAL
RECEPTION

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CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
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TRIAX® catTV system

TV over symmetric data cable



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The catTV technique

was developed to transfer over the previously used only for telephone and Internet data network and radio, television and value-added services. Thus, the additional coaxial cabling for television reception is unnecessary. TV reception can be at any point in the data network realized.

- catTV technology from TRIAX was developed to enable transmission of radio, television, and value-added services via the data network that formerly was used only for telephone and Internet. Thus additional coax cabling can be dispensed with for television reception. Television reception can then be implemented at any point of the data network.
- Multimedia application (radio, TV) directly via the existing 100 Ohm application-neutral building cabling = "structured cabling" (symmetric cabling in accordance with category 6/7)

- With the double-active catTV systems (distribution panel and Balun) link attenuation of up to 50 dB can be compensated. This also means that the maximum structured cabling length of (90 m) can be bridged.
- The service can be fed individually to each subscriber via star-shaped "structured cabling"
- Cost-effective extensions and supplemental integration of additional subscribers are possible without installation expenses - additional calibration is not required
- Installation of an additional coax network is not required for the TV multimedia application
- All TV channels offered from 45 (85) to 862 MHz can be transmitted
- Return channel enabled, optionally available with active or passive return channel (5-65 MHz)
- Plug and play system. Adjustment of attenuation and slope to the existing cable length merely requires a changeover switch (in 3 steps) on the balun.

NPN 3412 CatTV panel

Art. No. 350663

EAN Number
5702663506633



NPN catTV panels for television and radio reception at any point in the data network without additional installation of coaxial cable.

The panel with electric NPN input (coaxial/75 ohms), converts the input signal into a balanced signal (sym./100 ohms) to it via the patch (patch panel) of the building wiring intrude subscriber line.

- Super low noise push-pull technology
- Attenuator + equaliser on the input

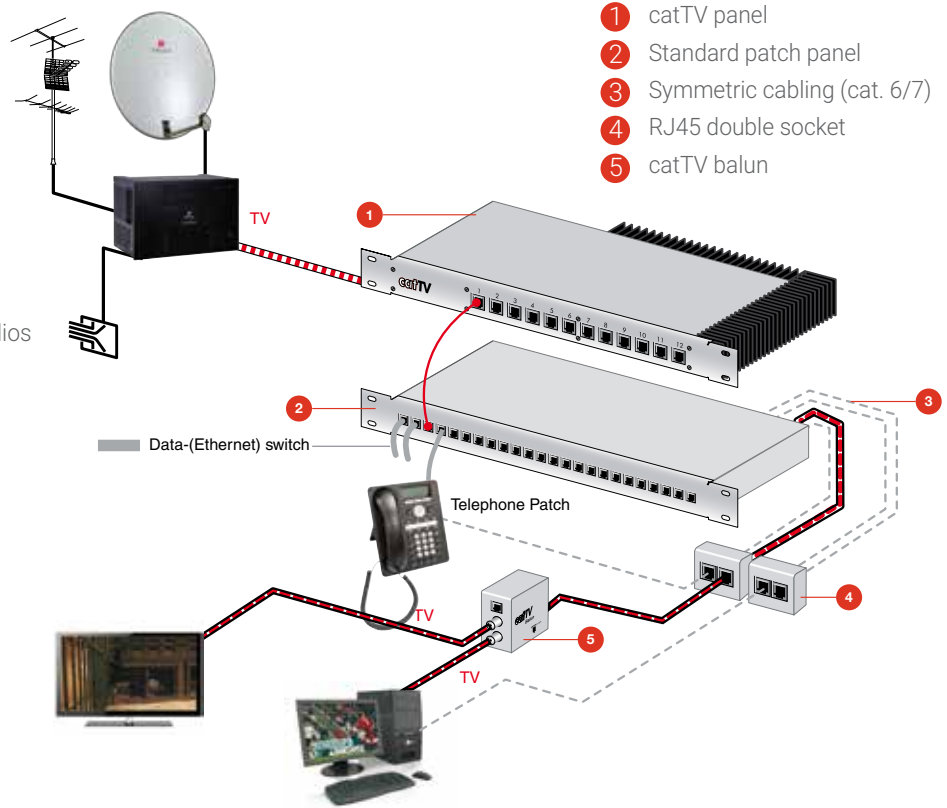
- Input measuring socket
- Amplification through GaAs- hybrids
- Conversion of 75 W(coaxial) to 100 W(symetric), RJ 45
- Paired cable configuration (HF 1,2; remote feed/RC 7, 8)
- TV signals are only actively switched when balun is connected
- Standard RC module active and passive can be retrofitted
- Static switch-off of individual ports is possible
- External power supply

TRIAX[®] catTV system

catTV-Panel NPN

Applications in / to

- Office and industrial buildings
- Clinics and hospitals
- Rehabilitation centres
- Banks, savings institutions
- Stock exchange workstations
- Brokerage firms
- Insurance buildings
- Airports
- TV stations and television studios
- Munciple buildings
- Hotels, vacation resorts
- Housing estates
- Athletic arenas
- Correspondent workstations



- 1 catTV panel
- 2 Standard patch panel
- 3 Symmetric cabling (cat. 6/7)
- 4 RJ45 double socket
- 5 catTV balun

Type:	NPN 3412 CatTV panel
Art. no.	350663
CHARACTERISTICS	
Output level CSO @ 60 dB IMD	94 (104) @ 15 dB SlopedB μ V
Output level CTB @ 60 dB IMD	94 (104) @ 15 dB SlopedB μ V
FREQUENCY	
Frequency range	45..862MHz
GAIN	
Gain	34dB
Noise figure	7dB
LOSS	
Attenuation - adjustable	0-20dB
Equalization	0...18 dB
ELECTRICAL	
Impedance	75 (IN), 100 (OUT) Ω
OPERATIONAL	
DC Operating voltage	28VDC
DC Current consumption (typ.)	930mA
External PSU	Included
LED indicator	green LED for Power on
Operating temperature range	0...+50°C
Power Consumption (typ.)	26W
CONNECTORS	
Connector Type	RJ45 female / F-female
Number of inputs	1
Number of outputs	12
RF connector - Test point input: bi-directional	-20dB
MECHANICAL	
Dimension (H x D x W)	42 x 180 x 483 mm (19 inch, 1 RU)

TERRESTRIAL
RECEPTION

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CABLE TV
(CATV)

HEADENDS
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TRIAX[®] catTV system

catTV Balun



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The balun (balanced - unbalanced)

converts the panel from catTV transmitted over the generic cabling symmetrical signal (100 ohms) to be processed in one of the devices (eg TV and radio) coaxial signal (75 ohm).

- The catTV balun is plugged in via a patch cable to the RJ45 socket participants.
- Phone input signals via RJ 45
- Back conversion of 100 W into 75 W

- Amplification of the HF signal
- Allocation of the signals to the outputs
- 2 variants, one without Return Path and one with Return Path 5-65 MHz
- Slope and attenuation of max. 50 dB are compensated
- Plug and play, 3 switch settings for easy adjustment to different cable lengths

NBL 0200 CatTV-Balun

Art. No. 350661

EAN Number
5702663506619



NBL 0265 CatTV-Balun

Art. No. 350662

EAN Number
5702663506626



Type:	NBL 0200 CatTV-Balun	NBL 0265 CatTV-Balun
Art. no.	350661	350662
CHARACTERISTICS		
Max. input level	54-90dBuV	54-90dBuV
Output level	60-77dBuV	60-77dBuV
FREQUENCY		
Frequency range	45...862MHz	80...862MHz
Frequency range return path		5...65MHz
Gain		
Gain	6/-7/-20 dB	6/-7/-20 dB
Pre-emphasis	18/10/0 dB	18/10/0 dB
ELECTRICAL		
Impedance	75 (RF OUT), 100 (RF IN) Ω	75 (RF OUT), 100 (RF IN) Ω
OPERATIONAL		
DC Operating voltage	10VDC	10VDC
DC Current consumption (typ.)	70mA	70mA
Operating temperature range	0...+50°C	0...+50°C
CONNECTORS		
Connector type - input	RJ 45-Buchse, 8-polig	RJ 45-Buchse, 8-polig
Connector type - output	IEC-male/IEC-female/RJ 45	F-female/IEC-male/RJ 45
Number of inputs	1	1
Number of outputs	3	3
MECHANICAL		
Colour	White	White
Product W x H x D (mm)	81 x 59 x 35 mm	81 x 59 x 35 mm
Packing QTY	1	1
Weight (kg)	0.112kg	0.112kg

TRIAX® Headend Solutions

find the right headend for your needs

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TERRESTRIAL
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CABLE TV
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TRIAX[®] headends

overview of our headend system



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TECHNICAL
APPENDIX

TDX BLACK EDITION



...a strong headend for medium sized CATV networks, town districts, CATV clusters, etc. The ultimate flexible hospitality solution including DRM interface and middleware support via IPTV signals

- Multi-unit (48 frontends and 72 output channels)
- Wide range of input and output technologies
- Simultaneous output of QAM/COFDM, PAL and IP
- Multiplexing
- Remote management and monitoring
- Local Service and hotel info channel insertion
- PID Management – to adapt PIDs if required
 - to secure Service changes without retuning of the television in each room
- One-stop solution (TDX in combination with the TRIAX CAS solution)
- Encryption and re-scrambling in one unit with no insecure interfaces to the decrypted content
- Provide scrambled services on differed distribution networks and technologies. Simultaneously distribution of QAM, COFDM and/or IP.
- IP-out for IPTV and middleware solutions

TDH 800



...a modular solution for hotels, multi-dwelling units, and as an add-on programme solution

- Wide range of input and output technologies
- Simultaneous output of QAM/COFDM and PAL
- Multiplexing
- Remote management and monitoring
- PID Management: – to secure service changes without retuning of the television in each room
- Local service and hotel info channel insertion

TDX Black Edition

technology that turns everything on its head

TDX headend – quite simply a revolution

Forget everything you know about headends: with TRIAX TDX you move into a completely new world. TRIAX's revolutionary IP Pool technology simplifies the setting up and management of headends, making the input and output modules

mutually independent. All input signals, regardless of whether they are received via satellite, terrestrial, cable, audio/video or via the Internet, can be flexibly and independently distributed from a "pool" to each and every output module.

Each of these input signals can be converted to any output signal: PAL, QAM, COFDM or IP, and because the input signals are not fixed to any particular outputs, they can be assigned to several output modules.

Energy friendly – long-term reliability

- 16 tuners, fully loaded 280W power consumption
- Intelligent cooling system with integrated fans increases the life of the equipment and allows installation in 19" cabinets

Easier service handling

- HOT SWAP service
- Fewer modules – allows easy spare part handling
- Log file on all TDX activity
- Remote access to the TDX for the installer and/or TRIAX support

Easy setup and configuration

- HTML based user interface means no special software for managing the system
- Mux bandwidth monitor to ensure that the mux is not overloaded
- The respective four adjacent output channels can be freely selected across the full frequency range
- LED to indicate operation and errors on each module
- Intuitive and easy, step-by-step configuration

Better and stronger performance

- Up to three headends can be combined into a multi unit system

- Up to 72 PAL, QAM or COFDM channels



A true IP headend

- Muxing technology
- IP in to any output
- IP out from any input
- Future proof: full compatibility with CAS systems, middleware, PMS, VOD services, EPG server, etc.

Easy installation

- Input modules are independent of output modules, resulting in fewer modules in total
- Faster installation
- DiSEqC 1.1 functionality
- The housing is designed to accommodate up to 16 input and 6 quad output modules. The output modules provide the possibility to support 12 CAM modules
- Can easily be installed on a wall or a 19" cabinet
- All inputs and outputs as well as all modules and cables can be accessed and operated easily from the front
- The 22 modules are numbered so their respective allocations are always immediately clear
- Cabinet lock system
- Cable management on top, left and right



- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
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- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
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TRIAX® TDX cabinet

main unit for TDX range of modules



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User-friendly technology

- Fully configurable: all implementation variants are possible with significantly fewer modules than a standard headend, thereby reducing costs for acquisition, service and warehousing
- Browser-based (HTML5) user interface configuration.
- Infinite variety of programmes thanks to revolutionary IP-pool technology, that makes TDX Black Edition uniquely flexible, efficient and economical

Futureproof

- IPTV offers video on demand, time-shifted television, many additional services for hoteliers, trade shows and much more

- No re-programming of the TV sets when a channel changes, thanks to PID management
- Energy-saving and durable

Perfect service for installers

- New modules are automatically recognised and configured
- No downtime for TV customers, as modules can be replaced during operation (hot swap)
- Supplied ready to fit the desired configuration
- Halved installation times due to easy programming
- Remote access for service and support

TDX Black Edition Main Unit



Art. No. 492091

EAN Number
5702664920919



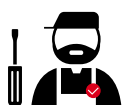
TDX Black Edition

technology that turns everything on its head

Easy to install. Easy to use.

The configuration XML file from the headend system can be stored anywhere as a backup, and can be installed rapidly on a new installation.

In close collaboration with installers, TRIAX has optimised system handling: installation and commissioning is very easy, and operating the system is straightforward for both users as well as service staff.



Type:	TDX Black Edition Main Unit
Art. no.	492091
CHARACTERISTICS	
Max. LNB control	4 x 305mA
Output level max. @ 60 dB IMD - 24 combined channels	103dB μ V
Test point	-20dB
FREQUENCY	
Frequency range (RF OUT)	47 - 862MHz
RETURN LOSS	
Return loss (RF OUT)	> 14 dB at 47 MHz (-1,5 dB/octave; min. 10 dB)
ELECTRICAL	
Impedance	75 Ω
OPERATIONAL	
Humidity - operating	20 ... 80%
Humidity - storage	10 ... 90%
AC Supply voltage	190 - 260 (50/60) HzVAC
Power Consumption (typ.)	280 (min. 20)W
Temperature - operating	-10 ... +50°C
Temperature - storage	-20 ... +70°C
CONNECTORS	
External RF OUT	F-connector
External test point	F-connector
PC interface	RJ 45
SFP cage	SFP Module (Cat5/Opto)
MECHANICAL	
Dimensions product (H x D x W) (HE)	290 x 240 x 440 mm / 6.5
Weight (kg)	12.0 kg
Packing QTY	1
Remarks	SNMP version : V1 & V2c

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TRIAX® TDX input modules

DVB-C - DVB-S/S2 - DVB-T/T2 - HDMI & AV frontend encoder modules



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DVB-S/S2

An input module for the reception of digital satellite signals in a TDX headend system.

The module can receive a complete transponder and all services on the chosen frequency can be transferred to the TDX pool. The DVB-S/S2 frontend module includes an IF tuner and a QPSK/8PSK demodulator with serial transport stream input to the TDX headend system.

TDX Frontend - DVB-S/S2 [QPSK/8PSK]

Art. No. 492020

EAN Number
5702664920209



DVB-T/T2

A frontend input module for the reception of both T and T2 digital terrestrial signals.

The module can receive a complete terrestrial mux and send all services in the mux to the TDX pool.

DVB-C

An input QAM demodulator module for the reception of a complete cable mux, sending all services in the mux to the TDX pool. The DVB-C frontend module includes a tuner, with integrated gain control and channel filtering, and a QAM demodulator with serial transport stream input to the TDX system.

TDX Frontend - DVB-T/T2 [COFDM]

Art. No. 492023

EAN Number
5702664920230



TDX Frontend - HDMI [Encoder module]

Art. No. 492030

EAN Number
5702664920308



TDX Frontend - DVB-C [QAM]

Art. No. 492024

EAN Number
5702664920247



TDX Frontend - AV [Encoder module]

Art. No. 492080

EAN Number
5702664920803



TRIAX® TDX input modules

DVB-C - DVB-S/S2 - DVB-T/T2 - HDMI & AV frontend encoder modules

HDMI & AV

The AV encoder module converts analogue video (CVBS) and the HDMI encoder module converts digital signals from a set top box, a DVD player, a camera or other sources, into a MPEG2 or MPEG4 data stream.

This data stream is then available in the TDX pool and can be sent out on all TDX output modules.

A 15 pol Sub-D or HDMI cable can be used to connect the source to the AV or HDMI module is also available.

Type:	TDX Frontend DVB-S/S2 [QPSK/8PSK]	TDX Frontend DVB-T/T2 [COFDM]	TDX Frontend DVB-C [QAM]	TDX Frontend HDMI [Encoder modul]	TDX Frontend AV [Encoder module]
Art. no.	492020	492023	492024	492030	492080
CHARACTERISTICS					
Audio embedded				AAC, 48 kHz/ MPEG-2(L1)	AAC, 48 kHz/ MPEG-2(L1), Stereo
Code rates DVB-T		1/2, 2/3, 3/4, 5/6, 7/8			
Code rates DVB-T2		1/2, 2/3, 3/4, 5/6			
Constellations DVB-T		QPSK, 16QAM, 64QAM			
Constellations DVB-T2		QPSK, 16QAM, 64QAM, 256QAM			
Demodulator		QPSK, 16QAM, 64QAM, 256QAM/ 1k, 2k, 8k, 16k, 32k	16 QAM, 64 QAM, 128 QAM, 256 QAM		
Demodulator Symbolrate			1.8 ...7.2Msym/s		
Demodulator Type	QPSK/8PSK	COFDM	QAM		
DiSEqC level	1.1				
FFT mode DVB-T		2K, 8K			
FFT mode DVB-T2		1K, 2K, 8K, 16K, 32K			
Guard Interval DVB-T		1/4, 1/8, 1/16, 1/32			
Guard interval DVB-T2		1/4, 1/8, 1/16, 1/32, 1/128			
Input Aspect Ratio					4:3 or 16:9
Input audio level					2.4Vpp
Input level	55...75dBµV	45...75dBµV	45...75dBµV		
Input Video S/N Ratio					> 52dB
Input video standards				480i30; 480p30 576i25; 576p50; 720p50/60; 1080p/i25/30	PAL, Secam
LNB LO/HI programmable	0/22kHz				
LNB V/H programmable	0..13..18/300V/ma				
FREQUENCY					
Input Audio Freq. Linearity					± 0.75dB
Input frequency range	950-2150MHz	177.5-226.5/474 - 858MHz	114 - 858MHz		
GAIN					
Input noise figure		< 7.0dB	< 7.0dB		
RETURN LOSS					
Input return loss	>10dB	> 6.0dB	> 7.0dB		> 26dB
ELECTRICAL					
Harmonic Distortion Max.					< 1%
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω
Input Audio Impedance					10 ± 1kΩ
Physical Interface					CVBS
OPERATIONAL					
DC Operating voltage	12 ± 1VDC	12 ± 1VDC	12 ± 1VDC	12 ± 1VDC	12 ± 1VDC
DC Current cons.(typ.)	OFF 150/ON 450mA	275mA	120mA	< 320mA	mA
Humidity - operating	20...80%	20...80%	20...80%	20...80%	20...80%
Temperature - operating	-10...+50°C	-10...+50°C	-10...+50°C	-10...+50°C	-10...+50°C
CONNECTORS					
Connector Type					
Connector IN	F-female	F-female	F-female	HDMI female (A)	15pol Sub-D
Number of inputs	1	1	1	1	1 x AV-signal
MECHANICAL					
Dimensions (H x D x W)	29 x 132 x 50mm	29 x 132 x 50mm	29 x 132 x 50mm	29 x 126 x 53mm	29 x 126 x 53mm
Packing QTY	1	1	1	1	1

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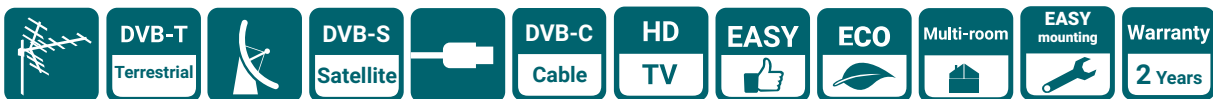
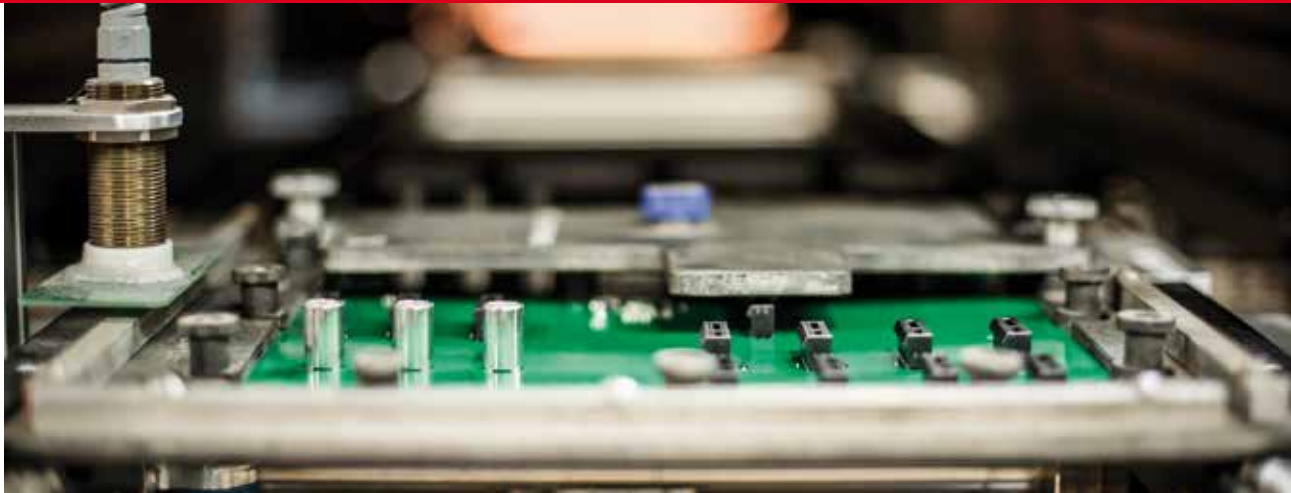
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TRIAX® TDX backend modules

quad QAM backend module DVB-C in FTA or with 2 x CI slot



TDX quad QAM

These backend output modules that enable you to create up to 4 muxes of services / TV programmes available from the TDX pool. The services are distributed in a QAM data stream and can be combined so that the bandwidth of each output mux is optimised. The mux bandwidth monitor function in the TDX service tool ensures that you don't overload the bandwidth and cause problems with the transmission.

TDX quad COFDM

These backend output modules enable you to create up to 4 muxes of services / TV programmes available from the TDX pool. The services are distributed in a COFDM data stream and can be combined so that the bandwidth of each output mux is optimised. The mux bandwidth monitor function in the TDX service tool ensure that you don't overload the bandwidth and cause problems with the transmission.

TDX Backend - QAM

Art. No. 492055
EAN Number
5702664920551



TDX Backend - COFDM

Art. No. 492060
EAN Number
5702664920605



TDX Backend - QAM - 2CI

Art. No. 492056
EAN Number
5702664920568



TDX Backend - COFDM - 2CI

Art. No. 492061
EAN Number
5702664920612



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TRIAX® TDX backend modules

quad COFDM backend module DVB-T in FTA or with 2 x CI

Multi-Unit for more power

- Up to three TDX headends can be combined as one system.
- Up to 72 PAL, QAM or COFDM channels are possible (around 280 HD programmes or 570 SD programmes).
- High output level at 103 dBµV for interference free reception.



Type:	TDX Backend QAM	TDX Backend QAM - 2CI	TDX Backend - COFDM	TDX Backend - COFDM - 2CI
Art. no.	492055	492056	492060	492061
CHARACTERISTICS				
Carrier supported			2K	2K
Deinterleaver	I=12	I=12		
FEC block code	RS 204, 188	RS 204, 188		
Guard Interval			1/32, 1/16, 1/8, 1/4	1/32, 1/16, 1/8, 1/4
MER	≥ 41.0 (typ. 42)dB	≥ 41.0 (typ. 42)dB	≥ 36 (typ. 38)dB	≥ 36 (typ. 38)dB
Output level adjustment	+3...-17dB	+3...-17dB	+3...-17dB	+3...-17dB
Output Level System	100dBµV	100dBµV	100dBµV	100dBµV
Output QAM Modes	16 QAM, 32 QAM, 64 QAM, 128 QAM, 256 QAM	16 QAM, 32 QAM, 64 QAM, 128 QAM, 256 QAM	16 QAM, 64 QAM, QPSK	16 QAM, 64 QAM, QPSK
Output symbol rate	3.15 - 7.2Mbit/s	3.15 - 7.2Mbit/s	Mbit/s	Mbit/s
Reed Solomon decoder	204, 188, t=8	204, 188, t=8	204 byte mode	204 byte mode
Roll-Off Factor	15%	15%		
Spurious Signals	> 60dB	> 60dB	> 60dB	> 60dB
FREQUENCY				
Bandwidth	7, 8MHz	7, 8MHz	6, 7, 8MHz	6, 7, 8MHz
Channel Raster	7, 8, 8.5MHz	7, 8, 8.5MHz	7, 8, 8.5MHz	7, 8, 8.5MHz
Frequency step	250kHz	250kHz	250kHz	250kHz
Output frequency range	50.5 - 858MHz	50.5 - 858MHz	50.5 - 858MHz	50.5 - 858MHz
RETURN LOSS				
Output Return Loss	> 10dB	> 10dB	> 10dB	> 10dB
OPERATIONAL				
CI slots	0	2	0	2
DC Operating voltage	12 ± 1VDC	12 ± 1VDC	12 ± 1VDC	12 ± 1VDC
DC Current consumption (typ.)	700mA	900mA	1000mA	1200mA
Humidity - operating	20 ... 80%	20 ... 80%	20 ... 80%	20 ... 80%
Humidity - storage	10 ... 90%	10 ... 90%	10 ... 90%	10 ... 90%
Temperature - operating	-10 ... +50°C	-10 ... +50°C	-10 ... +50°C	-10 ... +50°C
Temperature - storage	-20 ... +70°C	-20 ... +70°C	-20 ... +70°C	-20 ... +70°C
MECHANICAL				
Dimensions product (H x D x W)	17 x 162 x 185mm	24 x 162 x 185mm	17 x 162 x 185mm	24 x 162 x 185mm
Packing QTY	1	1	1	1
Weight (kg)	0.41kg	0.44kg	0.43kg	0.46kg

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TRIAX® TDX backend modules

PAL HD downscale - 2 x CI slot and IP backend modules



TDX quad PAL HD downscale

These modules take any HD service from the TDX pool, scale the service down to SD format, modulate it to a PAL signal and distribute it in a PAL network. You can distribute 4 PAL services / TV programmes from each module, equal to 24 PAL services from one cabinet.

The PAL HD downscale module comes in 2 versions: a Free-to-Air version and a CI version with 2 CI slots for decrypting content or services. AC3 support is possible with the addition of an AC3 activation licence.

Triax IP backend

This is an output module for the transmission of digital video, audio and miscellaneous data, encapsulated within one or more MPEG2/DVB single programme transport streams. Besides the backend module the package consists of a AUX-TS-Loop module and an SFP RJ45 (small form factor pluggable) module. IP licences are required.

Features:

- IP transmission of up to 80 MPEG2/DVB SPTS
- Configurable ratio of 3-7 TS packets / MTU
- Configurable output priority for each output SPTS
- RTP option
- 2 x CI slots complying to EN 50 221
- Hotswappable

TDX Backend - PAL HD FTA downscale

Art. No. 492052

EAN Number
5702664920520



TDX Backend - 2CI

Art. No. 492070

EAN Number
5702664920704



TDX Backend - PAL HD downscale - 2CI

Art. No. 492053

EAN Number
5702664920537



TDX Backend - IP - 2CI

Art. No. 492072

EAN Number
5702664920728



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TRIAX® TDX backend modules

PAL HD downscale - 2 x CI slot and IP backend modules

TDX – IP backend



Type:	TDX Backend PAL HD FTA downscale	TDX Backend PAL HD downscale - 2CI	TDX Backend 2CI	TDX Backend IP - 2CI
Art. no.	492052	492053	492070	492072
CHARACTERISTICS				
Crominance/luminance delay EIT	< 80ns/m	< 80ns/m		No EIT - must be obtained via native IP OUT
Differential Gain	< 8%	< 8%		
Differential Phase	< 8°	< 8°		
Output Audio S/N Ratio	50dB	50dB		
Output level adjustment	+3...-17dB	+3...-17dB		
Output Level System	103dBµV	103dBµV		
Output Video S/N Ratio	≥ 57dB	≥ 57dB		
Output format				MPEG-2/DVB compliant SPTS UDP/IP multicast via GbE
Picture carrier stability	< ±30kHz	< ±30kHz		
Sound sub carrier	5.5/5.74/6.0/6.5MHz	5.5/5.74/6.0/6.5MHz		
Spurious Signals	> 60dB	> 60dB		
FREQUENCY				
Channel Raster	7,8MHz	7,8MHz		
Frequency step	250kHz	250kHz		
Output frequency range	47 - 862MHz	47 - 862MHz		
RETURN LOSS				
Output Return Loss	> 10dB	> 10dB		
ELECTRICAL				
Luminance non-linearity	< 8%	< 8%		
Impedance			75Ω	75Ω
OPERATIONAL				
CI slots	0	2	2	2
DC Operating voltage	12 ± 1VDC	12 ± 1VDC	12 ± 1VDC	12 ± 1VDC
DC Current consumption (typ.)	1600mA	1800mA	600mA	< 600mA
Humidity - operating	20 ... 80%	20 ... 80%	20 ... 80%	20 ... 80%
TV-norm	Pal(B/G, I, L, D/K), Secam			
Humidity - storage	10 ... 90%	10 ... 90%	10 ... 90%	10 ... 90%
Output protocol			3-7:1 TS / IP packet ratio (configurable via GUI), RTP (optional via GUI)	
Temperature - operating	-10 ... +50°C	-10 ... +50°C	-10 ... +50°C	-10 ... +50°C
Temperature - storage	-20 ... +70°C	-20 ... +70°C	-20 ... +70°C	-20 ... +70°C
MECHANICAL				
Dimensions product (H x D x W)	17 x 162 x 185mm	24 x 162 x 185mm	24 x 162 x 185mm	24 x 162 x 185mm
Packing QTY	1	1	1	1
Weight (kg)	0.43kg	0.46kg	0.22kg	0.22kg

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TRIAX® TDX

fibre modules & software



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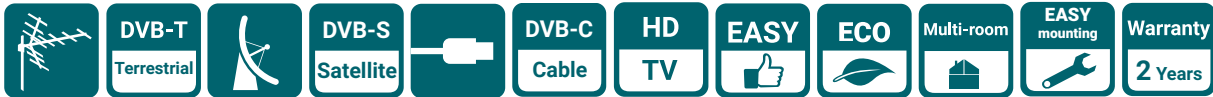
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TDX Software

IP input/output functionality

Create your own array of services / TV programmes from the TDX pool, distribute them on an IP data stream and define them in the TDX tool. No output module is needed, so long as more than 1 TS package per UDP package or RTP protocol is required – otherwise, an IP backend is required and you will need a licence key

containing the rights to the number of services needed. The licence keys are available in packages of 4 and 12 (96 IP out) IP services in each package. When the services are distributed in IP format, you will also need an SFP transceiver and a corresponding fibre or RJ45 cable.



**TDX SFP Module
Copper RJ45 -
EOLT - C12-02 plug**

Art. No. 492086
EAN Number
5702664920865



**TDX SFP Module - Fibre LC
850nm EOLT - 8512 MXX
plug**

Art. No. 492087
EAN Number
5702664920872



**TDX SFP Module
Fibre LC 1310nm
[EOLT - 1324-02XX plug]**

Art. No. 492088
EAN Number
5702664920889



Type:	TDX SFP Module - Copper RJ45 - EOLT - C12-02 plug	TDX SFP Module - Fibre LC 850nm EOLT - 8512 MXX plug	TDX SFP Module - Fibre LC 1310nm [EOLT - 1324-02XX plug]
Art. no.	492086	492087	492088
OPERATIONAL			
Data rate	1000	1000	1000
Reaching area	100m	550m	2.000m
MECHANICAL			
Packing QTY	1	1	1
Remarks	Copper SFP (RJ45)	Fibre LC - 850 nm	Fibre LC - 1310 nm

TDX – IP-in and IP-out



TDX IPTV-in 4 service - Start

Art. No. 418047

EAN Number
5702664180474



TDX IPTV-in 12 service - Start

Art. No. 418045

EAN Number
5702664180450



TDX IPTV-in 12 service - Expand

Art. No. 418046

EAN Number
5702664180467



TDX IPTV-out 12 service - Start

Art. No. 418040

EAN Number
5702664180405



TDX IPTV-out 12 service - Expand

Art. No. 418041

EAN Number
5702664180412



TDX Samsung DRM backend license

Art. No. 418073

EAN Number
5702664180733



TDX – IP-in and IP-out



TDX Alternative EIT source

Art. No. 418050

EAN Number
5702664180504



TDX PAL AC3 activation license

Art. No. 418051

EAN Number
5702664180511



TDX SimulCrypt 24 service

Art. No. 418072

EAN Number
5702664180726



TDX SNMP License

Art. No. 418062

EAN Number
5702664180627



TDX PID Management

Art. No. 418063

EAN Number
5702664180634



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TRIAX® TDX

accessories & spare parts



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TDX IPTV EPG Server

The EPG Server extracts data from DVB-S, DVB-C and DVB-T front end modules, generating different XML formats to support IP set-top boxes, IP TVs and middleware solutions.

TDX Redundant Power Supply

The TDX redundant power supply provides you with a high degree of power assurance in connection with your TDX headend system.

The redundant power supply uses two identical TDX Power supplies mounted in a mechanical frame. This means only one power supply in stock to support TDX and redundant power supply installations. If one power supply unit breaks down the other unit instantly takes over and thereby prevents an interruption of the supply of power. The damaged power supply can be changed without disconnecting the working unit from the power.

IPTV EPG Server

Art. No. 492095

EAN Number
5702664920957



TDX redundant power supply

Art. No. 492006

EAN Number
5702664920063



TRIAX® TDX

accessories & spare parts



TDX Controller

Art. No. 492000

EAN Number
5702664920001



TDX SD card

Art. No. 492084

EAN Number
5702664920841



TDX Double fan kit

Art. No. 775365

EAN Number
5702667753651



TDX power supply

Art. No. 492005

EAN Number
5702664920056

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TRIAX® TDH800 cabinet

the all-rounder with innovative pool technology



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TDH 800

The TDH 800 headend is ideal for those looking for a flexible, compact and reliable solution, with a range of input and output modules for all popular TV distribution formats.

If you need additional features such as multi unit or IP-in/out, then please select the TDX headend.

Perfect for

- Hotels
- Large multi-family houses
- Small settlements

Key features

- Fully configurable thanks to pool technology
- More programme channels by multiplexing
- Configuration via web interface



TDH 800 Cabinet - Main Unit

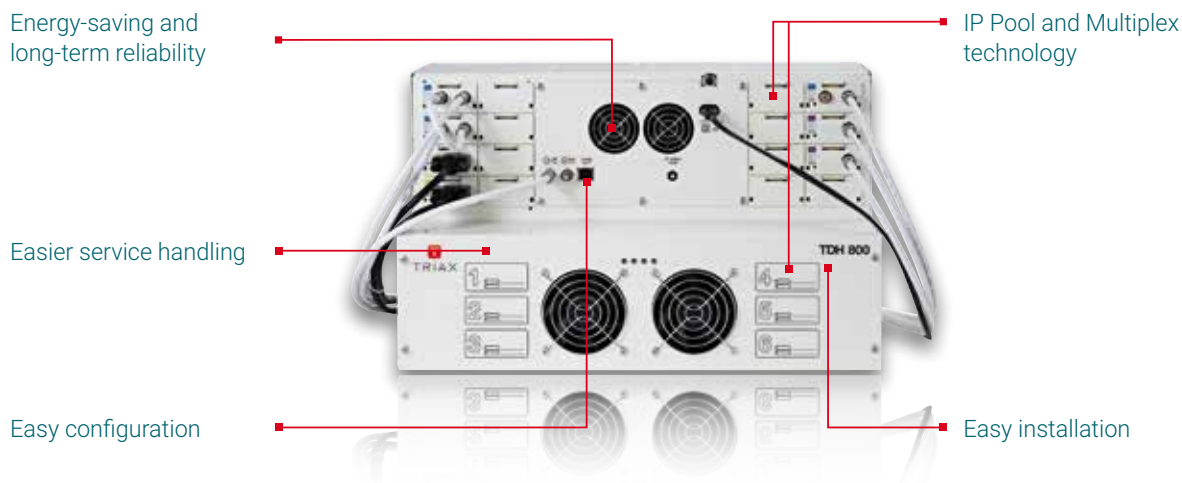
Art. No. 692890

EAN Number
5702666928906



TRIAX® TDH800 cabinet

main unit for TDH range of modules



Type:	TDH 800 Cabinet Main Unit
Art. no.	692890
CHARACTERISTICS	
External test point	F-connector
Max. LNB control	4 x 305mA
Output level max. @ 60 dB IMD - 24 combined channels	93dB μ V
Test point	-20dB
DiSEqC level	1
FREQUENCY	
Frequency range (RF OUT)	47-862MHz
RETURN LOSS	
Return loss (RF OUT)	> 10dB
ELECTRICAL	
Impedance	75 Ω
OPERATIONAL	
Humidity - operating	20 to 80%
Humidity - storage	10 to 90%
AC Supply voltage	190-260 (50/60 HZ IEC320 1.8m cable)VAC
Power Consumption (typ.)	280 (min 20)W
Temperature - operating	-10 to +50°C
Temperature - storage	-20 to +70°C
CONNECTORS	
External RF OUT	F-connector
PC interface	RJ 45
MECHANICAL	
Dimensions product (H x D x W)	265 x 240 x 440 mm
Packing QTY	1pcs
Remarks	

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TRIAX® TDH800 input modules

DVB-S/S2 - DVB-T/T2 - HDMI and AV frontend encoder module



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DVB-S/S2

This frontend module is an input module for the reception of digital satellite signals in a TDH 800 headend system. The module can receive a complete transponder, and all services on the chosen frequency can be transferred to the IP-pool.

The DVB-S/S2 frontend module includes an IF tuner with antenna loop through and a QPSK/8PSK demodulator with serial transport stream input to the TDH 800 headend system.

DVB-T/T2

This frontend module is an input module for the reception of both T and T2 digital terrestrial signals.

The module can receive a complete terrestrial mux and send all services in the mux to the IP-pool.



TDH 811 Frontend DVB-S/S2 [QPSK/8PSK]

Art. No. 692820

EAN Number 5702666928203



TDH 814 Frontend - AV encoder module

Art. No. 692880

EAN Number 5702666928807



TDH 813 Frontend DVB-T/T2 [COFDM]

Art. No. 692823

EAN Number 5702666928234



TDH 815 Frontend HDMI module

Art. No. 692830

EAN Number 5702666928302



TRIAX® TDH800 input modules

DVB-S/S2 - DVB-T/T2 - HDMI and AV frontend encoder module

HDMI & AV

The AV encoder module converts analogue video (CVBS) and the HDMI encoder module converts digital signals from a set top box, a DVD player, a camera or other sources, into a MPEG2 or MPEG4 data stream.

This data stream is then available in the IP-pool and can be sent out on all TDX output modules.

A 15 pol Sub-D or HDMI cable can be used to connect the source to the AV- or HDMI module is also available.

Type:	TDH 800 Frontend DVB-S/S2 [QPSK/8PSK]	TDH 800 Frontend DVB-T/T2 [COFDM]	TDH 800 Frontend AV encoder module	TDH 815 Frontend HDMI module
Art. no.	692820	692823	692880	692830
CHARACTERISTICS				
Audio embedded			AAC, 48 kHz/ MPEG-2(L1), Stereo	AAC, 48 kHz/ MPEG-2(L1), Stereo or AC3 pass through
Code rates DVB-T		1/2, 2/3, 3/4, 5/6, 7/8		
Code rates DVB-T2		1/2, 2/3, 3/4, 5/6		
Constallations DVB-T		QPSK, 16QAM, 64QAM		
Constallations DVB-T2		QPSK, 16 QAM, 64 QAM, 256 QAM		
DiSEqC level	1.1			
FFT mode DVB-T		2K, 8K		
FFT mode DVB-T2		1K,2K,4K,8K,16K,32K		
Input audio level			2.4Vpp	
Input level	55...75dBuV	45...75dBuV		
Input video level			1.0Vpp	
Input Video S/N Ratio			> 52dB	
Input video standards			PAL, Secam	480i30; 480p60; 576i25; 576p50; 720p50/60; 1080p25/30; 1080i25/30
LNB LO/HI programmable	0/22kHz			
Output Type				MPEG (Serial) transport stream (LVDS)
Output Video Codec			MPEG-2, MPEG-4	MPEG-2, MPEG-4
Output Video Codec Settings (CBR)			1, 2, 2.5, 3, 4, 5, 6, 7, 8, 9, 10 MbpsMbps	3...11 a 1Mbps
Scan Resolution			525, 625 Pixel	
FREQUENCY				
Bandwidth		7/8MHz		
Audio frequency response			50 - 20.000Hz	
Input frequency range	950...2150MHz	VHF 177.5-226.5 MHz UHF 474 - 858MHz		
GAIN				
Input noise figure		< 7.0dB		
RETURN LOSS				
Input return loss	> 10dB	> 6dB	> 26dB	
ELECTRICAL				
Harmonic Distortion Max.			< 1.0%	
Impedance	75Ω	75Ω	75Ω	
Input Audio Impedance			10 ± 1kΩ	
Physical Interface			CVBS	
OPERATIONAL				
DC Operating voltage	12VDC	12VDC		12 ± 1VDC
DC Current consumption (typ.)	OFF 150/ ON 450mA	200mA		< 320mA
Humidity - operating	20...80%	20 to 80%	20 to 80%	20...80%
Temperature - operating	-10...+50°C	-10 to +50°C	-10 to +50°C	-10...+50°C
CONNECTORS				
Connector Type	F-female	F-female	15pol Sub-D	HDMI female (A)
Number of inputs	1	1	1 x AV-signal	1x HDMI
MECHANICAL				
Dimensions product (H x D x W)	32 x 132 x 50mm	29 x 132 x 50mm	29 x 126 x 53mm	29 x 126 x 53mm
Packing QTY	1	1	1	1

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TRIAX® TDH800 backend modules

quad PAL HD downscale - FTA or with 2 x CI slot



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TDH800 quad PAL HD downscale

These modules take any HD service from the IP-pool, scale it down to SD format, modulate it to a PAL signal and distribute it in a PAL network. You can distribute 4 PAL services / TV programmes from each module, equal to 24 PAL services from one cabinet.

The PAL HD downscale module comes in 2 versions: a Free-to-Air version and a CI version with 2 CI slots for decrypting content or services. AC3 support is possible with the addition of an AC3 activation licence.



TDH 848 Backend - PAL-HD Downscale FTA

Art. No. 692852

EAN Number
5702666928524



TDH 849 Backend - PAL-HD Downscale CI

Art. No. 692853

EAN Number
5702666928531



TDH 847 Backend 2CI

Art. No. 692870

EAN Number
5702666928708



TRIAX® TDH800 backend modules

CI only

Type:	TDH 848 Backend PAL-HD Downscale FTA	TDH 849 Backend PAL-HD Downscale CI
Art. no.	692852	692853
CHARACTERISTICS		
Output Audio S/N Ratio	50dB	50dB
Output Level System	103dBuV	103dBuV
Output Video S/N Ratio	≥ 57dB	≥ 57dB
Sound sub carrier	5.5/5.74/6.0/6.5MHz	5.5/5.74/6.0/6.5MHz
Spurious Signals	> 60dB	> 60dB
FREQUENCY		
Channel Raster	7, 8MHz	7, 8MHz
Frequency step	250kHz	250kHz
Output frequency range	47 - 862MHz	47 - 862MHz
RETURN LOSS		
Output Return Loss	> 10dB	> 10dB
ELECTRICAL		
Impedance	75Ω	75Ω
OPERATIONAL		
CI slots	0	2
DC Operating voltage	12 ± 1VDC	12 ± 1VDC
DC Current consumption (typ.)	1600mA	1800mA
Humidity - operating	20 ... 80%	20 ... 80%
Humidity - storage	10 ... 90%	10 ... 90%
Temperature - operating	-10 ... +50°C	-10 ... +50°C
Temperature - storage	-20 ... +70°C	-20 ... +70°C
CONNECTORS		
Connector Type	F-female	F-female
MECHANICAL		
Dimensions product (H x D x W)	17 x 162 x 185mm	24 x 162 x 185mm
Packing QTY	1	1

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Triax 2 x CI backend

The 2 x CI backend module enables you to take several services depending on CAM module from the IP pool, decrypt them and loop them back in decrypted form to the pool.

Type:	TDH 847 2CI Backend
Art. no.	692870
ELECTRICAL	
Impedance	75Ω
OPERATIONAL	
CI slots	2
DC Operating voltage	12 ± 1VDC
DC Current consumption (typ.)	600mA
Humidity - operating	20 ... 80%
Humidity - storage	10 ... 90%
Output protocol	
Temperature - operating	-10 ... +50°C
Temperature - storage	-20 ... +70°C
CONNECTORS	
Connector Type	F-female
MECHANICAL	
Dimensions product (H x D x W)	24 x 162 x 185 mmmm
Packing QTY	1

TRIAX® TDH800 backend modules

quad QAM backend module DVB-C in FTA or with 2 x CI slot



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TDH800 quad COFDM

These backend modules are output modules that enable you to create up to 4 muxes of services / TV programmes which are available from the IP-pool. The services are distributed in a COFDM data stream. The services can be combined so that the bandwidth of each output mux is used in an optimal way. The mux bandwidth monitor function in the service tool ensures that you don't overload the bandwidth and cause problems with the transmission.

TDH800 quad QAM

These backend modules are output modules that enable you to create up to 4 muxes of services / TV programmes which are available from the IP-pool. The services are distributed in a QAM data stream. The services can be combined so that the bandwidth of each output mux is used in an optimal way. The mux bandwidth monitor function in the service tool ensures that you don't overload the bandwidth and cause problems with the transmission.



TDH 845 Backend QAM

Art. No. 692855

EAN Number
5702666928555



TDH 843 Backend COFDM

Art. No. 692860

EAN Number
5702666928609



TDH 846 Backend QAM - 2CI

Art. No. 692856

EAN Number
5702666928562



TDH 844 Backend COFDM - 2CI

Art. No. 692861

EAN Number
5702666928616



TRIAX® TDH800 backend modules

quad COFDM backend module DVB-T in FTA or with 2 x CI



Type:	TDH 800 Backend - COFDM	TDH 800 Backend - COFDM -2CI	TDH 800 Backend - QAM	TDH 800 Backend - QAM - 2CI
Art. no.	692860	692861	692855	692856
CHARACTERISTICS				
Carrier supported	2K	2K		
Guard Interval	1/32, 1/16, 1/8, 1/4	1/32, 1/16, 1/8, 1/4		
Deinterleaver			l=12	l=12
Reed Solomon decoder	204 byte mode	204 byte mode	204, 188, t=8	204, 188, t=8
MER	≥ 35.0dB	≥ 35.0dB	≥ 38.0dB	≥ 38.0dB
Output Level System	90.0 ± 1.5dBμV	90.0 ± 1.5dBμV	90.0dBμV	90.0dBμV
Output QAM Modes	16 QAM, 64 QAM, QPSK	16 QAM, 64 QAM, QPSK	16 QAM, 32 QAM, 64 QAM, 128 QAM, 256 QAM	16 QAM, 32 QAM, 64 QAM, 128 QAM, 256 QAM
Output symbol rate			3.15...7.2Mbit/s	3.15...7.2Mbit/s
Spurious Signals	> 60dB	> 60dB	> 60dB	> 60dB
Roll-Off Factor			15%	15%
TER - FEC rate	1/2, 2/3, 3/4, 5/6, 7/8	1/2, 2/3, 3/4, 5/6, 7/8		
FREQUENCY				
Channel Raster	7, 8, 8.5MHz	7, 8, 8.5MHz	7, 8, 8.5MHz	7, 8, 8.5MHz
Frequency step	250kHz	250kHz	250kHz	250kHz
Output frequency range	50.5 - 858MHz	50.5 - 858MHz	50.5 - 858MHz	50.5 - 858MHz
RETURN LOSS				
Output Return Loss	> 10dB	> 10dB	> 10dB	> 10dB
ELECTRICAL				
Impedance	75Ω	75Ω	75Ω	75Ω
OPERATIONAL				
CI slots	0	2	0	2
DC Operating voltage	12 ± 1VDC	12 ± 1VDC	12 ± 1VDC	12 ± 1VDC
DC Current consumption (typ.)	1000mA	1200mA	700mA	900mA
Humidity - operating	20...80%	20...80%	20...80%	20...80%
Humidity - storage	10...90%	10...90%	10...90%	10...90%
Temperature - operating	-10...+50°C	-10...+50°C	-10...+50°C	-10...+50°C
Temperature - storage	-20...+70°C	-20...+70°C	-20...+70°C	-20...+70°C
CONNECTORS				
Connector Type	F-female	F-female	F-female	F-female
MECHANICAL				
Dimensions product (H x D x W)	17 x 162 x 182mm	24 x 162 x 182mm	17 x 162 x 185mm	24 x 162 x 185mm
Packing QTY	1	1	1	1

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CAS – Conditional Access Systems

for hospitality and CATV Solutions



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Conditional Access Turn-Key Solutions

TRIAx is your reliable partner for turn-key solutions, supporting headend operators with everything they need for digital TV projects.

Plug & Play Hardware

All our CAS hardware is plug & play and can be easily installed with little prior knowledge. Configuration is downloaded from our central server and a continuous backup ensures data integrity at all times. Faulty hardware simply needs to be exchanged – its replacement will automatically receive the same configuration with no additional steps required.

Security

We're committed to keeping content secure, and we've developed a set of countermeasures and standby technologies to allow continuity. Control words to protect broadcast content generated by scramblers in the headend are secured along the whole signal chain. Unique keys branded into secure chipsets together with watermarking technology effectively prevent control word sharing on all scales. Copy protection is a must for a Conditional Access System.

CAS Hospitality

This solution has been specifically designed for the needs of the hospitality sector. Each guest house, clinic or hotel needs to offer value-added TV services and whether in limited budgets or green field deployment of state-of-the-art TV services, TRIAX is the key component for successful access control. Hospitality operators are able to offer linear TV services and Video-On-Demand to their guests while retaining full control over guests' demands and guarding against piracy.

Content in any network infrastructure can be secured and controlled with one single chassis CAS Server in

the headend. Using any type of cabling (coaxial, twisted pair or even wireless), and any type of transport (DVB-C/T or IP-based), the headend controls both one-way (broadcast) and two-way transport networks. Existing TV sets can be used by adding a Common Interface module. More functionality will be available with a set top box. Every employee has their unique interface: a receptionist handles the payment and controls the guest subscription accordingly, a technician or caretaker maintains and manages the respective smartcards / devices of the rooms. A manager has full control and observes all actions, including those executed in the past. Easy and effortless management of the overall system without the need for specialists is therefore possible.



Features:

- Supports room management for up to 500 rooms
- Room messaging (On-screen messages)
- High-end conditional access system (CAS)
- Compatible with QAM, COFDM and IP
- Data stored at a secure TRIAX database (no backup necessary)
- Controlled by CAS Management Software or network based interface
- Pay per channel, TV client, provisioning, etc.
- Any client device: TV with CI interface or set-top box
- Smartcard or cradles licenses possible
- Hospitality & hotel chains management (on request): Master account for managing thousands of hotels uniformly
- Easy to use reception mode
- Easy integration into your PMS system (on request)

CAS – Conditional Access Systems

for hospitality and small CATV Solutions

CAS Hospitality

Art. No. 305528



CAS Operator

Art. No. 305537



CAS Operator

The Operator CAS System for digital headends is optimised to run with a TDX. Installation, operation and maintenance are very easy and do not need expert intervention. Every headend becomes a secure and state-of-the-art digital TV platform with high-end Digital Rights Management and access restriction.



Features:

- Support subscriber or room management.
- Up to 250,000 subscribers
- Compatible with QAM, COFDM and IP
- Data stored at a secure TRIAX database (No backup necessary)
- Controlled by CAS Management Software or network based interface
- Pay per channel, TV client, provisioning, etc.
- On-screen messages
- Any client device: TV with CI interface or set-top box
- Smartcard or cradles licenses possible
- High-end conditional access system (CAS)

CAS Smartcard

Art. No. 305502



The CAS smartcard chip is based on an NXP crypto controller. A set of cryptographic features makes this platform highly flexible and secure. Should a compromise take place, pre-included standby algorithms can be activated.

CAS Cardless licence DVB

Art. No. 305503



TRIAX offers a CA kernel running on a secure chipset. Depending on the device's chipset every level of security can be reached: from basic kernel for cost-effective devices up to a sophisticated kernel, secured by a high-end, advanced security chipset. All CA kernel flavours include standby algorithms that can be activated in case of compromise. In this way you have the tamper-proof security of a smartcard integrated directly into your box, eliminating the possibility of attacks on the communication between the smartcard and the box hardware.



CAS Management Software

This web-based application is the user interface for all TRIAX CAS products, with an ever-growing feature set. It is the central component that enables plug & play and easy control of the overall system. CAS Management Software is also multilingual. Translators maintain 9 languages currently and CAS Management Software itself can easily talk with any other software such as subscriber management systems, billing, etc.

CAS Hybrid STB DVB-C/T/ IP slim

Art. No. 305232



HD DVB-C set top box compliant with MPEG2 and MPEG4 H.264. TRIAX has a full range of CAS compatible set-top boxes and will find and offer the right solutions needs during a project evaluation.

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TRIAX® CM 01

1 channel modulators



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TRIAX modulators

CM series:

TRIAX CM modulators modulate AV signals from a camera, video or set top box to a VHF channel (CM 01V), UHF channel (CM 01U) or UHF channel with integrated amplifier (CM 01UA).

- Multi-standard
- Easy programming
- PLL – locked frequency
- Built-in power supply

TFM01

The TRIAX Fullband Modulator TFM01 allows you to mix the output from any normal VCR/DVD-Player, camera, etc. with a composite output signal and enjoy it on any standard PAL TV-set in your household. Due to the full VHF/UHF coverage of this modulator you can be sure always to find a TV channel in your home system that is free for use and interference.

MOD 101

The MOD 101 is a digital modulator with one high definition HDMI input (1080P, MPEG4) and a full range COFDM modulator (MOD 101T) or full range QAM modulator (MOD 101C).

CM 01U [UHF] modulator

Art. No. 300102

EAN Number
5702663001022



CM 01UA [UHF] modulator with amplifier

Art. No. 300116

EAN Number
5702663001169



CM 01V [VHF] modulator

Art. No. 300101

EAN Number
5702663001015



MOD 101C HDMI-QAM

Art. No. 300126

EAN Number
5702663001268



MOD 101T HDMI-COFDM

Art. No. 300125

EAN Number
5702663001251



Triax Fullband Modulator TFM01

Art. No. 300112

EAN Number
5702663001121



TRIAX[®] CM 01

1 channel modulators with amplifier

Type:	CM 01V [VHF] modulator	CM 01U [UHF] modulator	CM 01UA [UHF] modulator with amplifier	MOD 101C HDMI-QAM	MOD 101T HDMI-COFDM	TFM01 Fullband Modulator
Art. no.	300101	300102	300116	300126	300125	300112
CHARACTERISTICS						
Audio Compression				MPEG-1 Audio Layer II (ISO/ IEC 11172-3)	MPEG-1 Audio Layer II (ISO/ IEC 11172-3)	
Audio Input	0.5 V RMS	0.5 V RMS	0.5...1.0 V RMS	Stereo, HDMI	Stereo, HDMI	
Code rate					1/2, 2/3, 3/4, 5/6, 7/8	
COFDM					DVB-T	
Constellation					QPSK/16 QAM/ 64 QAM	
Guard Interval					1/4, 1/8, 1/16, 1/32	
MER				>36dB	>36dB	
Number of carriers					2K / 8K	
Input level			max. 70 dB μ V	75 - 90dB μ V	90dB μ V	
Output level @ 60 dB IMD	max. 80 dB μ V	max. 80 dB μ V	72...82 dB μ V	75 - 90dB μ V	90dB μ V	72 - 82 dB μ V
Video Compression				H.264/AV	H.264/AC	
Video Input . CVBS	1.0	1.0	0.8...1.0	HDMI	HDMI	0.8...1.0Vpp
Video resolution	Pal-B	Pal-G	Pal-G	Up to 1080p @30HzPixel	Up to 1080p @30HzPixel	
Modulator type	Double side band					
FREQUENCY						
Gain from out 1/out 2				2 @ Out1 10 @ Out2 dB		2 @ Out1 10 @ Out2 dB
Bandwidth				6/7/8MHz	6-8MHz	
Frequency range	175...335MHz	470...860MHz	470...860MHz	100 - 860MHz	100-860MHz	MHz
Output attenuation	0...10 dB	0...10 dB	0...10 dB			0...10 dB
RETURN LOSS						
LCN				Up to 1023	Up to 1023	
PID settings				PMT/Video & Audio / PCR	PMT/Video & Audio / PCR	
PSI				HID/ONID/ P.D.S./TS ID	HID/ONID/ P.D.S./TS ID	
Screen Resolution				800x600 / 1024x768 / 1280x600 / 1280x720 / 1280x768 / 1360x768 / 1366x768		
Through loss	4.0dB	4.0dB				
ELECTRICAL						
Impedance	75 Ω	75 Ω	75 Ω	75 Ω	75 Ω	75 Ω
OPERATIONAL						
DC Operating voltage				12VDC	12VDC	
External PSU				Included		
AC Supply voltage	230VAC	230VAC	230VAC			230VAC
Power Consumption (typ.)	3.0W	3.0W	3.5W	8W	8W	3.5W
CONNECTORS						
Connector IN	1 x F-female	1 x F-female	1 x F-female	HDMI female	HDMI female	1 x F-female
Connector OUT	1 x F-female	1 x F-female	2 x F-female	F-female	F-female	1 x F-female
Input connector				HDMI, F-terrestrial loop through	Video/Audio: HDMI Type A	
MECHANICAL						
Product Depth	54mm	54mm	54mm	150mm	150mm	
Product Width	174mm	174mm	174mm	150mm	150mm	
Product Height	75mm	75mm	75mm	36.5mm	36.5mm	
Weight (kg)				0.48kg	0.48kg	0.5kg
Display	L			LCD panel and buttons	LCD panel and buttons	Buttons
Packing QTY	1	1	1	1	1	
Remarks	Use SCART cable art. no. 300743					Use SCART cable art. no. 300743

TERRESTRIAL
RECEPTION

SATELLITE
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RECEPTION

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Notes

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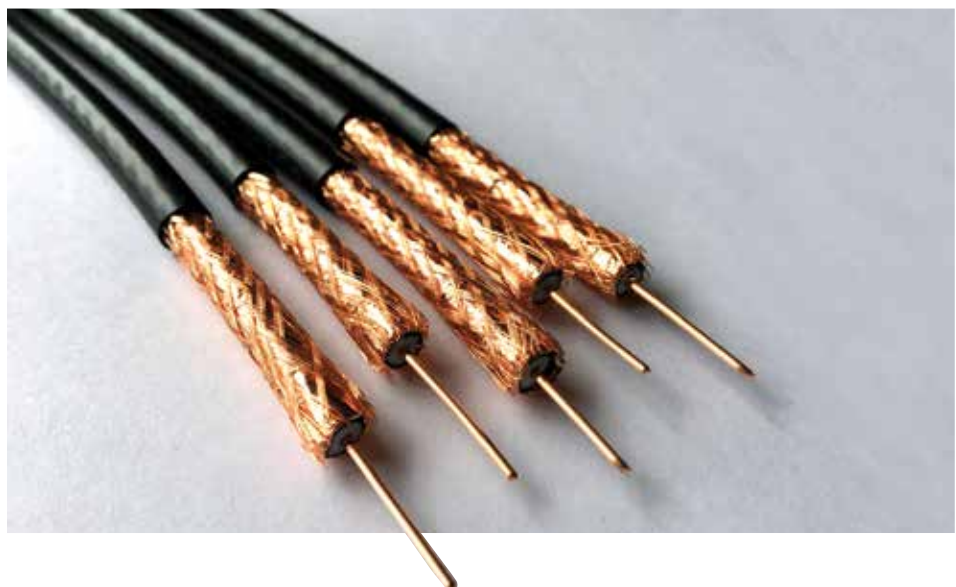
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TRIAX[®] Cables

Superior quality cables for the most demanding networks

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TRIAX® Cables

Futureproof. Fire safe.



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Superior quality cables for the most demanding networks

TRIAX cables are designed to meet the standards of today and the network demands of tomorrow. Specially crafted and highly shielded to minimise interference, each one has been meticulously updated and rigorously tested to conform to the new EN50575 fire safety standard.

Maximum performance

Our cables are highly suited for the most demanding installations. Just take our flagship KOKA 110 coaxial cable as an example, which offers:

- The highest levels of interference protection
- Crystal clear HD & 4K TV images
- Up- and downstream data transmission
- Exceptional build quality and durability
- Safety in case of fire

Maximum safety – EN50575 compliant

All TRIAX cables are fully tested and classified according to the EN50575 Construction Products Regulation, in force from 1 July 2017, so they:

- Meet the highest demands for safety in case of fire
- Are safe and suitable for all building projects across the EU and the world

About Construction Products Regulation (EU) No 305/2011

This regulation, coming into force for cables from 1 July 2017, identifies a number of basic requirements to be met by products, including cables, used in construction works. One of these requirements, EN50575:2014+A1:2016, is 'safety in case of fire'.

All cables sold within the EU for the construction market must be CE marked, to show that they have been tested and classified accordingly and therefore meet these mandatory standards.

EN50575 defines a number of classes – Aca, B1ca, B2ca, Cca, Dca, Eca and Fca – which specify how a cable reacts to fire, based on heat release and the spread of flames. The classes and respective test methods are presented in the following table:

CE markings for cables

In order to obtain the mandatory CE mark for cables, manufacturers must draw up a Declaration of Performance (DoP).

This must be made available in the language of each EU country where the product is to be sold, and contain specific information such as product identification, its intended use, and its declared performance.

The DoP – and consequently the CE mark - can only be issued once the product has been thoroughly and independently tested by a 'notified body,' i.e. an entity that has been accredited by an EU Member State to make the required assessments.

TRIAX[®] fire safe cables

CE marked, meeting the new EU fire standard

	Euro-Class	Contribution to a fire	AVCP System	Additional test	Assessment and certification process
Not applicable to Data cables	A _{ca}	No contribution	1+	Smoke Acidity Droplet	<i>Notified body issues attestation of conformity after:</i> <ul style="list-style-type: none"> ■ Initial type test ■ Factory audit ■ Biannual production inspection ■ Annual audit test on samples taken from warehouse
	B1 _{ca}	Minimum contribution			
Data Cables for indoor application	B2 _{ca}	Very limited contribution			
	C _{ca}	Limited contribution			
	D _{ca}	Average contribution			
Not acceptable in the buildings	E _{ca}	High contribution	3	-	<i>Notified body issues attestation of conformity after:</i> Initial type test
	F _{ca}	Undetermined fire properties	4	-	<i>Self-declaration by Manufacturer</i>

TRIAX cables: fully tested and CE marked

We are happy to assure our customers that all TRIAX cables are now stamped with the CE mark, and the necessary DoPs are available for each product line. The cables have been variously classified B2ca, Cca, Dca & Eca, meeting all statutory demands, and satisfying the recommendations of ZVEI, the German Electrical and Electronic Manufacturers' Association.

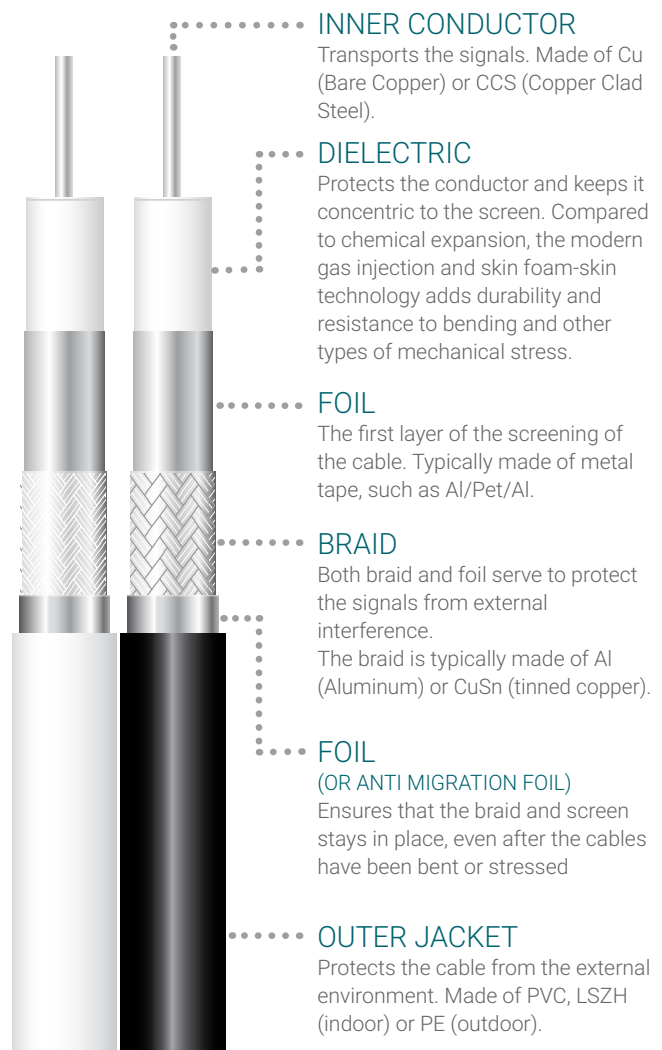
Shielding of the cables is carried out according to EN 50117-2-X standard

EN 50117 Class	Transfer Impedance	Screening attenuation MHz		
MHz	5-30	30-1000	1000-2000	2000-3000
Class C	< 50 mΩ/m	> 75 dB	> 65 dB	> 55 dB
Class B	< 15 mΩ/m	> 75 dB	> 65 dB	> 55 dB
Class A	< 5.0 mΩ/m	> 85 dB	> 75 dB	> 65 dB
Class A+	< 2.5 mΩ/m	> 95 dB	> 85 dB	> 75 dB
Class A++	< 0.9 mΩ/m	> 105 dB	> 95 dB	> 85 dB

List of abbreviations

Legend	
AL	Aluminium
AL/PET	Aluminium/Polyester
AL/PET/AL	Aluminium/Polyester/Aluminium
CU	Plain copper
CUSN	Tinned Copper
LSZH	Low smoke zero halogen
PE	Polyethylene
PVC	Polyvinylchloride
SRL	Structural return loss

TRIAX cable range optimised for digital reception.



TERRESTRIAL RECEPTION

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TRIAX® KOKA 80 Plus, KOKA 600 cable range

for indoor and outdoor installation



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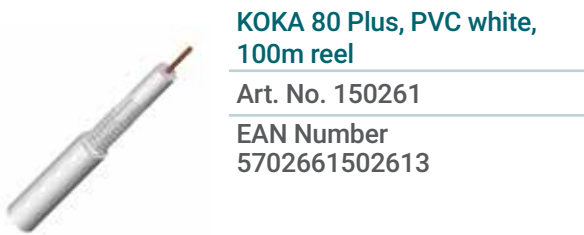
TRIAX KOKA 80 Plus PVC/PE cable

The TRIAX KOKA 80 Plus is a premium cable for all types of indoor and outdoor installation. Due to the full copper inner conductor, the signal loss in the cable is very low and thereby less amplification is required in your installation.

For outdoor installations, we highly recommend the coax cables with PE jacket, as this material is simply more resistant to weather conditions.

TRIAX KOKA 600 LSZH cable

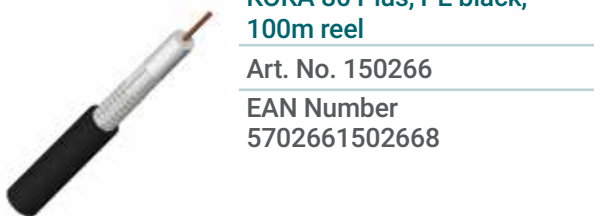
TRIAX KOKA 600 is a premium cable for all types of indoor installation. Due to full copper inner conductor, the signal loss in the cable is very low and thereby less amplification is required in your installation.



KOKA 80 Plus, PVC white, 100m reel

Art. No. 150261

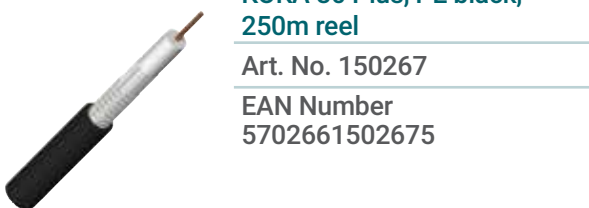
EAN Number
5702661502613



KOKA 80 Plus, PE black, 100m reel

Art. No. 150266

EAN Number
5702661502668



KOKA 80 Plus, PE black, 250m reel

Art. No. 150267

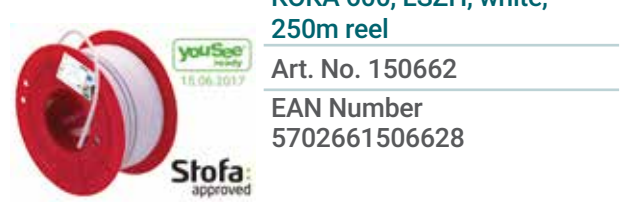
EAN Number
5702661502675



KOKA 600, LSZH, white, 100m reel

Art. No. 150661

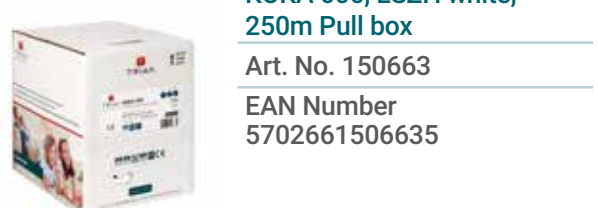
EAN Number
5702661506611



KOKA 600, LSZH, white, 250m reel

Art. No. 150662

EAN Number
5702661506628



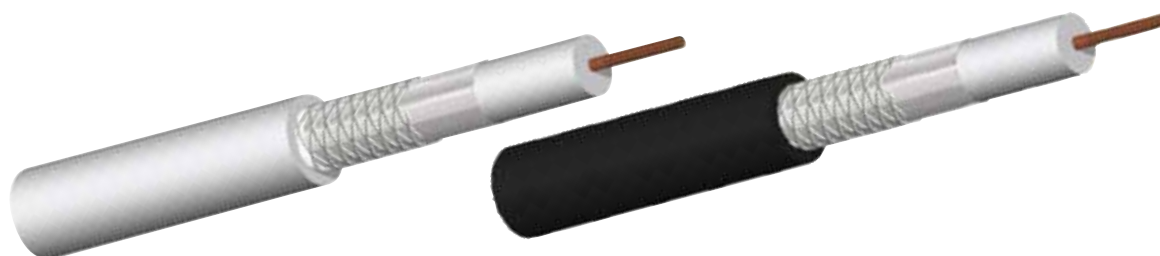
KOKA 600, LSZH white, 250m Pull box

Art. No. 150663

EAN Number
5702661506635

TRIAX[®] fire safe cables

CE marked, meeting the new EU fire standard



Type:	KOKA 80 Plus PVC white 100m reel	KOKA 80 Plus PE black 100/250m reel	KOKA 600 A LSZH white 100/250/250m
Art. no.	150261	150266/150267	150661/150662/150663
CONSTRUCTION			
Inner conductor - material	Cu	Cu	Cu
Inner conductor - dimension	1.02 ± 0.01mm	1.02 ± 0.01mm	1.13mm
Dielectric - material	PE gas injected	PE gas injected	PE gas injected
Dielectric - dimension	4.8 ± 0.05mm	4.8 ± 0.05mm	4.80 ± 0.05mm
Shield (First) foil 1 – material	Al/P bonded foil	Al/P bonded foil	Al/Pet bonded
Shield (First) foil 1 – overlap	20%	20%	20%
Shield (Second) – braid material	CuSn	CuSn	CuSn
Shield (Second) – braid dimension	0,10x4x16mm	0,10x4x16mm	0.10x6x24mm
Shield (Second) – braid coverage	> 37%	> 37%	72%
Jacket – dimension	6.8 ± 0.1mm	6.8 ± 0.1mm	6.8 ± 0.1mm
Jacket - material	UV resistance PVC	UV resistance PVC	UV resistance LSZH
SHIELDING			
Screening attenuation @ 30-1000 MHz	> 78dB	> 78dB	> 85.0dB
Screening attenuation @ 1000-2000 MHz	> 95dB	> 95dB	> 90.0dB
Screening attenuation @ 2000-3000 MHz	> 105dB	> 105dB	> 80.0dB
TRANSFER IMPEDANCE			
Transfer Impedance @ 5-30 MHz	< 24mΩ/m	< 24mΩ/m	< 5mΩ/m
LOSS			
Attenuation (at 20°C) @ 5 MHz	2,1dB	2,1dB	1.6dB
Attenuation (at 20°C) @ 50 MHz	4,3dB	4,3dB	4.2dB
Attenuation (at 20°C) @ 200 MHz	8,8dB	8,8dB	8.2dB
Attenuation (at 20°C) @ 470 MHz	13,8dB	13,8dB	12.8dB
Attenuation (at 20°C) @ 862 MHz	19,1dB	19,1dB	17dB
Attenuation (at 20°C) @ 1000 MHz	20,7dB	20,7dB	18.9dB
Attenuation (at 20°C) @ 1350 MHz	24,4dB	24,4dB	22.4dB
Attenuation (at 20°C) @ 1750 MHz	28,8dB	28,8dB	25.5dB
Attenuation (at 20°C) @ 2150 MHz	31,6dB	31,6dB	28.7dB
RETURN LOSS			
Structural return loss @ 5-470 MHz	> 30dB	> 30dB	> 26dB
Structural return loss @ 470-1000 MHz	> 31dB	> 31dB	> 23dB
Structural return loss @ 1000-2400 MHz	> 31dB	> 31dB	dB
Structural return loss @ 2000-3000 MHz	> 31dB	> 31dB	> 20dB
ELECTRICAL			
Impedance	75 ± 3Ω	75 ± 3Ω	75 ± 3Ω
Capacity	52 ± 1pF/m	52 ± 1pF/m	52 ± 3pF/m
Velocity ratio	82%	82%	82%
Inner DC resistance	< 21Ω/km	< 21Ω/km	< 18Ω/km
Outer DC resistance	< 23Ω/km	< 23Ω/km	< 13Ω/km
OPERATIONAL			
Application	Indoor	Outdoor	Indoor
Fire Class	E _{ca}	F _{ca}	C _{ca}
MECHANICAL			
Tensile Strength - Outer Conductor 1 (∅)			230N/mm ²
Colour	White	Black	White
Length (m)	100m	100/250m	100/250/250m
Minimum bending radius - single/repeated	35/70mm	35/70mm	35/70mm

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TRIAX® KOKA 99 HD Plus cable range

optimised to meet your needs



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TRIAX KOKA 99 HD Plus LSZH / PVC cable

TRIAX KOKA 99 HD Plus is a premium cable for all types of indoor installation. Due to the full copper inner conductor, the signal loss in the cable is very low and thereby less amplification is required in your installation.

For outdoor installations, we highly recommend the coax cables with PE jacket, as this material is simply more resistant to weather conditions.



**KOKA 99 HD Plus
LSZH white
100m reel**

Art. No. 151706

EAN Number
5702661517068



**KOKA 99 HD Plus
LSZH white
250m reel**

Art. No. 151707

EAN Number
5702661517075



**KOKA 99 HD Plus
LSZH white
500m drum**

Art. No. 151708

EAN Number
5702661517082



**KOKA 99 HD Plus
PVC white
100m reel**

Art. No. 151701

EAN Number
5702661517013



**KOKA 99 HD Plus
PVC white
250m reel**

Art. No. 151702

EAN Number
5702661517020



**KOKA 99 HD Plus
PVC white
250m Pullbox**

Art. No. 151703

EAN Number
5702661517037



**KOKA 99 HD Plus
PVC white
500m drum**

Art. No. 151705

EAN Number
5702661517051

TRIAx[®] fire safe cables

CE marked, meeting the new EU fire standard

Type:	KOKA 99 HD Plus LSZH white 100/250/500m	KOKA 99 HD Plus PVC white 100/250/500m	KOKA 99HD Plus PVC white 250m Pullbox
Art. no.	151706/151707/151708	151701/151702/151705	151703
CONSTRUCTION			
Inner conductor - material	Cu	Cu	Cu
Inner conductor - dimension	1.02 ± 0.02mm	1.02 ± 0.01mm	1.02 ± 0.01mm
Dielectric - material	PE gas injected	PE gas injected	PE gas injected
Dielectric - dimension	4.6 ± 0.05mm	4.57 ± 0.1mm	4.57 ± 0.1mm
Shield (First) foil 1 – material	Al/Pet/Al - bonded	Al/Pet/Al - bonded	Al/Pet/Al - bonded
Shield (First) foil 1 – overlap	20%	20%	20%
Shield (Second) – braid material	Al	Al	Al
Shield (Second) – braid dimension	0,12x6x16mm		
Shield (Second) – braid coverage	62%	77%	77%
Third shield – foil 2 – material	Al/Pet	Al/Pet	Al/Pet
Jacket – dimension	6.8 ± 0.1mm	6.9 ± 0.1mm	6.9 ± 0.1mm
Jacket - material	UV resistance LSZH	PVC	PVC
SHIELDING			
Screening attenuation @ 30-1000 MHz	≥ 105dB	≥ 105dB	≥ 105dB
Screening attenuation @ 1000-2000 MHz	≥ 100dB	≥ 100dB	≥ 100dB
Screening attenuation @ 2000-3000 MHz	≥ 100dB	≥ 100dB	≥ 100dB
TRANSFER IMPEDANCE			
Transfer Impedance @ 5-30 MHz	≤ 5mΩ/m	≤ 5mΩ/m	≤ 5mΩ/m
LOSS			
Attenuation (at 20°C) @ 5 MHz	1.7dB	1.9dB	1.9dB
Attenuation (at 20°C) @ 50 MHz	4.6dB	4.6dB	4.6dB
Attenuation (at 20°C) @ 200 MHz	8,6dB	9,0dB	9,0dB
Attenuation (at 20°C) @ 470 MHz	13.6dB	13.5dB	13.5dB
Attenuation (at 20°C) @ 800 MHz		18.3dB	18.3dB
Attenuation (at 20°C) @ 862 MHz	18.8dB	18.8dB	18.8dB
Attenuation (at 20°C) @ 1000 MHz	20.3dB	20.3dB	20.3dB
Attenuation (at 20°C) @ 1350 MHz	24,5dB	23.6dB	23.6dB
Attenuation (at 20°C) @ 1600 MHz		26.2dB	26.2dB
Attenuation (at 20°C) @ 1750 MHz	27.2dB	27.3dB	27.3dB
Attenuation (at 20°C) @ 2150 MHz	30.6dB	30.8dB	30.8dB
RETURN LOSS			
Structural return loss @ 5-470 MHz	>26dB	> 23dB	> 23dB
Structural return loss @ 470-862 MHz			
Structural return loss @ 470-1000 MHz	>23dB	> 20dB	> 20dB
Structural return loss @ 862-2400 MHz			
Structural return loss @ 1000-2000 MHz	>20dB	> 18dB	> 18dB
Structural return loss @ 1000-2400 MHz			
Structural return loss @ 2000-3000 MHz	>20dB	> 16dB	> 16dB
ELECTRICAL			
Insulation Resistance	>10000MΩ/km		
Impedance	75 ± 3Ω	75 ± 3Ω	75 ± 3Ω
Capacity	52 ± 2pF/m	53 ± 2pF/m	53 ± 2pF/m
Velocity ratio	84%	83 ± 1%	83 ± 1%
Inner DC resistance	<22.5Ω/km	≤ 21.5Ω/km	≤ 21.5Ω/km
Outer DC resistance	<20Ω/km	<15Ω/km	<15Ω/km
Conductor DC resistance @ 20°C	Ohm/km	Ohm/km	Ohm/km
Mutual capacity @ 1kHz	pF/m	pF/m	pF/m
OPERATIONAL			
Application	Indoor	Indoor	Indoor
Fire Class	C _{ca}	E _{ca}	E _{ca}
MECHANICAL			
Tensile Strength - Outer Conductor 1 (Ø)	230N/mm ²		
Colour	White	White	White
Length (m)	100/250/500m	100/250/500m	250m
Minimum bending radius - single/repeated	23/70mm	35/70mm	35/70mm

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TRIAX® KOKA 110 A+ and A++ cable range

for indoor and outdoor installation



TRIAX KOKA 110 A+ LSZH / PVC cable



KOKA 110 A+
PVC white
100m reel

Art. No. 151611

EAN Number
5702661516115



KOKA 110 A+
LSZH white
100m reel

Art. No. 151616

EAN Number
5702661516160



KOKA 110 A+
PVC white
250m reel

Art. No. 151612

EAN Number
5702661516122



KOKA 110 A+
LSZH white
500m drum

Art. No. 151617

EAN Number
5702661516177



KOKA 110 A+
PVC white
500m drum

Art. No. 151615

EAN Number
5702661516153



KOKA 110 A+
PE black
100m reel

Art. No. 151613

EAN Number
5702661516139



KOKA 110 A+
PVC white
250m Pullbox

Art. No. 151620

EAN Number
5702661516207



KOKA 110 A+
PE black
250m reel

Art. No. 151614

EAN Number
5702661516146

TERRESTRIAL
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TRIAX[®] fire safe cables

CE marked, meeting the new EU fire standard



**KOKA 110 A++
LSZH white
100m reel**

Art. No. 151618

**EAN Number
5702661516184**



**KOKA 110 A++
LSZH white
500m drum**

Art. No. 151619

**EAN Number
5702661516191**

Type:	KOKA 110 A+ PVC white	KOKA 110 A+ PVC white	KOKA 110 A+ LSZH white	KOKA 110 A+ PE black	KOKA 110 A++ LSZH white
Inner conductor - dimension	1.02 ± 0.01mm	1.02 ± 0.01mm	1.02 ± 0.01mm	1.02 ± 0.01mm	1.05 ± 0.01mm
Dielectric - material	PE gas injected	PE gas injected	PE gas injected	PE gas injected	PE gas injected
Dielectric - dimension	4.6(+0.2-0.3)mm	4.6(+0.2-0.3)mm	4.6(+0.2-0.3)mm	4.6(+0.2-0.3)mm	4.65 ± 0.01mm
Shield (First) foil 1 – material	Al/Pet/Copolymer	Al/Pet/Copolymer	Al/Pet/Copolymer	Al/Pet/Copolymer	Al/Pet/Copolymer
Shield (First) foil 1 – overlap	20%	20%	20%	20%	20%
Shield (Second) – braid material	CuSn	CuSn	CuSn	CuSn	CuSn
Shield (Second) – braid coverage	60%	60%	60%	60%	82%
Third shield – foil 2 – material	AL/Pet bonded	AL/Pet bonded	AL/Pet bonded	AL/Pet bonded	AL/Pet bonded
Jacket – dimension	6.8 ± 0.1mm	6.8 ± 0.1mm	6.8 ± 0.1mm	6.8 ± 0.1mm	6.9 ± 0.1mm
Jacket - material	PVC	PVC	LSZH	PE	LSZH
SHIELDING					
Screening attenuation @ 30-1000 MHz	≥ 120dB	≥ 120dB	≥ 120dB	≥ 120dB	≥ 110dB
Screening attenuation @ 1000-2000 MHz	≥ 120dB	≥ 120dB	≥ 120dB	≥ 120dB	≥ 105dB
Screening attenuation @ 2000-3000 MHz	≥ 120dB	≥ 120dB	≥ 120dB	≥ 120dB	≥ 100dB
TRANSFER IMPEDANCE					
Transfer Impedance @ 5-30 MHz	< 2.5mΩ/m	< 2.5mΩ/m	< 2.5mΩ/m	< 2.5mΩ/m	< 0.9mΩ/m
LOSS					
Attenuation (at 20°C) @ 5 MHz	1.5dB	1.5dB	1.5dB	1.5dB	1.5dB
Attenuation (at 20°C) @ 50 MHz					4.6dB
Attenuation (at 20°C) @ 200 MHz	9.0dB	9.0dB	9.0dB	9.0dB	9.0dB
Attenuation (at 20°C) @ 470 MHz	13.5dB	13.5dB	13.5dB	13.5dB	13.6dB
Attenuation (at 20°C) @ 862 MHz	18.8dB	18.8dB	18.8dB	18.8dB	19.5dB
Attenuation (at 20°C) @ 1000 MHz	20.3dB	20.3dB	20.3dB	20.3dB	21.0dB
Attenuation (at 20°C) @ 1350 MHz					24.1dB
Attenuation (at 20°C) @ 1750 MHz					27.8dB
Attenuation (at 20°C) @ 2150 MHz					31.2dB
Struc. return loss @ 5-470 MHz	≥ 25dB	≥ 25dB	≥ 25dB	≥ 25dB	≥ 26dB
Struc. return loss @ 470-1000 MHz	≥ 23dB	≥ 23dB	≥ 23dB	≥ 23dB	≥ 23dB
Struc. return loss @ 1000-2400 MHz	≥ 20dB	≥ 20dB	≥ 20dB	≥ 20dB	≥ 20dB
Struc. return loss @ 2000-3000 MHz					≥ 20dB
ELECTRICAL					
Impedance	75 ± 3Ω	75 ± 3Ω	75 ± 3Ω	75 ± 3Ω	75 ± 3Ω
Capacity	53 ± 2pF/m	53 ± 2pF/m	53 ± 2pF/m	53 ± 2pF/m	53 ± 2pF/m
Velocity ratio	83 ± 1%	83 ± 1%	83 ± 1%	83 ± 1%	83 ± 1%
Inner DC resistance	< 21.5Ω/km	< 21.5Ω/km	< 21.5Ω/km	< 21.5Ω/km	< 20Ω/km
Outer DC resistance	< 12.0Ω/km	< 12.0Ω/km	< 12.0Ω/km	< 12.0Ω/km	< 9.8Ω/km
OPERATIONAL					
Application	Indoor	Indoor	Indoor	Outdoor	Indoor
Fire Class	E _{ca}	E _{ca}	C _{ca}	F _{ca}	B _{2ca}
MECHANICAL					
Colour	White	White	White	Black	White
Length (m)	100/250/500m	250m	100/500m	100/250m	100/500m

TERRESTRIAL
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TRIAX® KOKA 6 and F6 Plus cable range

for indoor and outdoor installation



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TRIAX KOKA 6 PVC white cable

TRIAX KOKA 6 is a premium cable for all types of indoor and outdoor installation. Due to the full copper inner conductor, the signal loss in the cable is very low and thereby less amplification is required in your installation.

For outdoor installations, we highly recommend the coax cables with PE jacket, as this material is simply more resistant to weather conditions.

TRIAX KOKA F6 Plus PVC white cable

TRIAX KOKA 600 is a premium cable for all types of indoor installation. Due to the full copper inner conductor, the signal loss in the cable is very low and thereby less amplification is required in your installation.



KOKA 6 - PVC white 100m reel

Art. No. 150121

EAN Number
5702661501210



KOKA F6 Plus PVC white 100m reel

Art. No. 151137

EAN Number
5702661511370



KOKA 6 - PVC white 250m reel

Art. No. 150122

EAN Number
5702661501227



KOKA F6 Plus PVC white 305m reel

Art. No. 151138

EAN Number
5702661511387



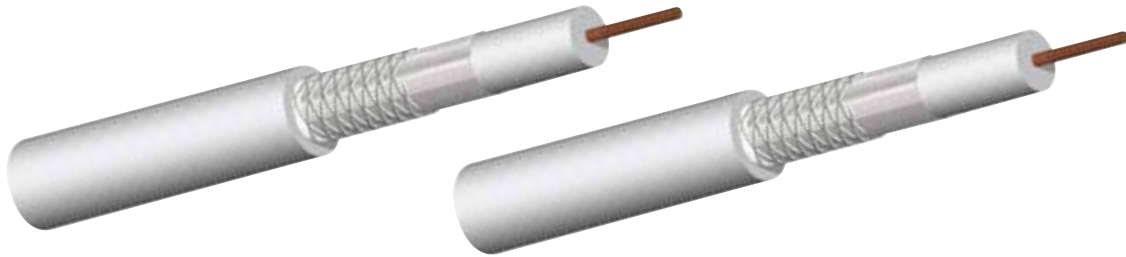
KOKA 6 - PVC white 305m reel

Art. No. 150129

EAN Number
5702661501296

TRIAX[®] fire safe cables

CE marked, meeting the new EU fire standard



Type:	KOKA 6 PVC white 100/250 m	KOKA 6 PVC white 305m reel	KOKA F6+ PVC white 100/305 m
Art. no.	150121 / 150122	150129	151137 / 151138
CONSTRUCTION			
Inner conductor - material	Cu	Cu	CCS
Inner conductor - dimension	1.02 ± 0.02mm	1.02 ± 0.02mm	1.02 ± 0.03mm
Dielectric - material	PE gas injected	PE gas injected	PE foam
Dielectric - dimension	4.8 ± 0.1mm	4.8 ± 0.1mm	4.57 ± 0.1mm
Shield (First) foil 1 – material	Al/P - unbonded	Al/P - unbonded	Al/Pet bonded
Shield (First) foil 1 – overlap	20%	20%	20%
Shield (Second) – braid material	Al wire	Al wire	Al
Shield (Second) – braid coverage	> 43%	> 43%	60 ± 3%
Third shield – foil 2 – material			Al/Pet
Jacket – dimension	6.8 ± 0.2mm	6.8 ± 0.2mm	6.9 ± 0.2mm
Jacket - material	PVC	PVC	LSZH
SHIELDING			
Screening attenuation @ 30-1000 MHz	> 75dB	> 75dB	> 100dB
Screening attenuation @ 1000-2000 MHz	> 65dB	> 65dB	> 90dB
Screening attenuation @ 2000-3000 MHz	> 55dB	> 55dB	> 95dB
TRANSFER IMPEDANCE			
Transfer Impedance @ 5-30 MHz	< 15mΩ/m	< 15mΩ/m	mΩ/m
LOSS			
Attenuation (at 20°C) @ 5 MHz	1.9dB	1.9dB	2.4dB
Attenuation (at 20°C) @ 50 MHz	5.0dB	5.0dB	5.0dB
Attenuation (at 20°C) @ 200 MHz	9.63dB	9.63dB	9.0dB
Attenuation (at 20°C) @ 470 MHz	13.5dB	13.5dB	15.2dB
Attenuation (at 20°C) @ 862 MHz	20.01dB	20.1dB	19.0dB
Attenuation (at 20°C) @ 1000 MHz	21.49dB	21.49dB	21.5dB
Attenuation (at 20°C) @ 1350 MHz	23.5dB	23.5dB	25.3dB
Attenuation (at 20°C) @ 1750 MHz	26.5dB	26.5dB	28.4dB
Attenuation (at 20°C) @ 2150 MHz	31.2dB	31.2dB	30.8dB
RETURN LOSS			
Structural return loss @ 5-470 MHz	> 21dB	> 21dB	
Structural return loss @ 470-1000 MHz	> 21dB	> 21dB	> 21dB
Structural return loss @ 1000-2000 MHz	> 18dB	> 18dB	> 18dB
Structural return loss @ 2000-3000 MHz	> 16dB	> 16dB	> 16dB
ELECTRICAL			
Impedance	75 ± 3Ω	75 ± 3Ω	75 ± 3Ω
Capacity	53pF/m	53pF/m	pF/m
Velocity ratio	82%	82%	81%
Inner DC resistance	< 22Ω/km	< 22Ω/km	< 100Ω/km
Outer DC resistance	< 65Ω/km	< 65Ω/km	< 38Ω/km
OPERATIONAL			
Application	Indoor	Indoor	Indoor
Fire Class			E _{ca}
MECHANICAL			
Colour	White	White	White
Length (m)	100/250m	305m	100/305m
Minimum bending radius - single/repeated	23/70mm	23/70mm	23/70mm

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TRIAX® KOKA 30/50/780 and RG11 cables

for indoor and outdoor installation



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Triax KOKA 30/50 and KOKA 780 Twin

is a universal coaxial cable for in-house TV broadcast cabling. Due to the full copper inner conductor, the signal loss in the cable is low so less amplification is required in your installation.

KOKA 780 is a Twin cable for SAT-IF cable systems, for use with 3 or 4-output outlets.

Triax RG 11 Plus

are ideal for entry point feed systems running to a building and applications to each floor of residential buildings. The RG 11s are durable quality cables offering high stability for many years to come. To protect the signals from interferences, the cables are engineered with a high shielding efficiency – Class A according to EN 50117.



KOKA 30
PVC white
100m reel

Art. No. 150001

EAN Number
5702661500015



KOKA 50
PVC white
100m reel

Art. No. 150151

EAN Number
5702661501517



KOKA 780 Twin
PVC white
100m coil

Art. No. 150004

EAN Number
5702661500046



RG11 Plus
PE black 10.2mm
500m drum

Art. No. 150240

EAN Number
5702661502408



RG11 Plus LSZH
White 10.2mm
500m drum

Art. No. 150241

EAN Number
5702661502415

TRIAX[®] fire safe cables

CE marked, meeting the new EU fire standard

Type:	KOKA 30	KOKA 50	KOKA 780 Twin	RG11 Plus	RG11 Plus
	PVC white	PVC white	PVC white	PE black	LSZH white
	100m reel	100m reel	100 coil	500m	500m
Art. no.	150001	150151	150004	150240	150241
CONSTRUCTION					
Inner conductor - material	Cu	Cu	Cu	Cu	Cu
Inner conductor - dimension	0.41 ± 0.02mm	0.8 ± 0.02mm	0.8mm	1.7 ± 0.01mm	1.7 ± 0.01mm
Dielectric - material	PE gas injected	PE gas injected	PEG	PEG	PEG
Dielectric - dimension	1.9 ± 0.1mm	3.5 ± 0.1mm	3.5mm	7.2 ± 0.05mm	7.2 ± 0.05mm
Shield (First) foil 1 – material	Al/Pet/Al tape - unbonded	Al/Pet/Al tape - unbonded	Al/Pet/Al tape	Al/Pet/Al tape	Al/Pet/Al tape
Shield (First) foil 1 – overlap	20%	20%			
Shield (Second) – braid material	CuSn	CuSn	CuSn	CuSn	CuSn
Shield (Second) – braid coverage	58%	> 45%	65%	55%	55%
Third shield – foil 2 – material				Al/Pet	Al/Pet
Jacket – dimension	3.6 ± 0.1mm	5.0 ± 0.15mm	2 x 5 ± 0.2mm	10.2 ± 0.1mm	10.2 ± 0.1mm
Jacket - material	PVC	PVC	PVC	UV resistance PE	UV resistance LSZH
SHIELDING					
Screening attenuation @ 30-1000 MHz	> 75dB	> 75dB	> 90dB	> 120dB	> 120dB
Screening attenuation @ 1000-2000 MHz	> 85dB	> 85dB	> 80dB	> 115dB	> 115dB
Screening attenuation @ 2000-3000 MHz	> 75dB	> 80dB	> 70dB	> 100dB	> 100dB
TRANSFER IMPEDANCE					
Transfer Impedance @ 5-30 MHz			< 0.35mΩ/m	< 2,5mΩ/m	< 2,5mΩ/m
LOSS					
Attenuation (at 20°C) @ 5 MHz	3.9dB	2.5dB	2.1dB	0.9dB	0.9dB
Attenuation (at 20°C) @ 50 MHz	11.4dB	6.1dB	5.7dB	2.7dB	2,7dB
Attenuation (at 20°C) @ 200 MHz	21.4dB	11.2dB	11.0dB	5.6dB	5,6dB
Attenuation (at 20°C) @ 470 MHz	33.5dB	17.5dB	17.2dB	8.8dB	8,8dB
Attenuation (at 20°C) @ 862 MHz	46.5dB	23.9dB	23.6dB	12.3dB	12,3dB
Attenuation (at 20°C) @ 1000 MHz	50.6dB	25.9dB	25.5dB	13.1dB	13,1dB
Attenuation (at 20°C) @ 1350 MHz	59.6dB	30.4dB			
Attenuation (at 20°C) @ 1600 MHz			34.3dB		
Attenuation (at 20°C) @ 1750 MHz	66.5dB	34.8dB		18.0dB	18,0dB
Attenuation (at 20°C) @ 2150 MHz	72.0dB	39.0dB	38.0dB	20.2dB	20,2dB
RETURN LOSS					
Structural return loss @ 5-470 MHz	> 21dB	> 26dB	dB	> 26dB	> 26dB
Structural return loss @ 470-1000 MHz	> 20dB	> 23dB	> 28dB	> 23dB	> 23dB
Structural return loss @ 1000-2000 MHz	> 18dB	> 18dB	> 26dB	> 20dB	> 20dB
Structural return loss @ 2000-3000 MHz	> 16dB	> 16dB	> 22dB	> 20dB	> 20dB
ELECTRICAL					
Impedance	75 ± 3Ω	75 ± 3Ω	75 ± 3Ω	75 ± 3Ω	75 ± 3Ω
Capacity	55 ± 1pF/m	52 ± 1pF/m	52 ± 2pF/m	52.0 ± 3pF/m	52.0 ± 3pF/m
Velocity ratio	82%	85%	85%	82%	82%
Inner DC resistance	130Ω/km	25Ω/km	35Ω/km	7,5Ω/km	7,5Ω/km
Outer DC resistance	40Ω/km	50Ω/km	18.6Ω/km	9Ω/km	9Ω/km
OPERATIONAL					
Application	Indoor	Indoor	Indoor	Outdoor	Indoor
Fire Class			E _{ca}	F _{ca}	D _{ca}
MECHANICAL					
Colour	White	White	White	Black	White
Length (m)	100m	100m	100m	500m	500m
Minimum bending radius - single/repeated	25/50mm	25/50mm	25/50mm	50/100mm	50/100mm

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TRIAX® RG11 cables

durable quality cable offering high stability for many years



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Triax RG11 cables

RG 11 types are ideal for entry point feed systems running to a building and applications to each floor of residential buildings. The RG 11s are durable quality cables with CU or CCS inner conductors, offering high stability for many years to come. To protect the signals from electromagnetic

interference, the cable is engineered with a high shielding efficiency – Class A according to EN 50117. Installing TRIAX RG 11 types, end-users benefit by receiving higher quality TV pictures.



KOKA 6
PE black
100m coil

Art. No. 150125



RG 11 - CCS
PE black
305m drum

Art. No. 150118



KOKA RG6
PE black
305m reel

Art. No. 150026



RG 11
PE black
305m drum

Art. No. 150117



RG 11
PE black
500m drum

Art. No. 150115

TRIAX® RG11 cables

cable range optimised to meet your needs!



Type:	KOKA 6 PE black 100m coil	KOKA RG6 CCS PE black 305m reel	RG 11 - CCS PE black 305m drum	RG 11 PE black 305/500m drum
Art. no.	150125	150026	150118	150115 / 150117
CONSTRUCTION				
Inner conductor - material	Cu	CCS	CCS	Cu
Inner conductor - dimension	1.02 ± 0.03mm	1.02 ± 0.01mm	1.63 ± 0.01mm	1.63 ± 0.01mm
Dielectric - material	PE gas injected	PE gas injected	PEG	PEG
Dielectric - dimension	4.8 ± 0.1mm	4.57 ± 0.05mm	7.2 ± 0.15mm	7.2 ± 0.15mm
Shield (First) foil 1 – material	Al/Pet - unbonded	Al/Pet - bonded	Al/Pet tape - bonded	Al/Pet tape - bonded
Shield (First) foil 1 – overlap	20%	20%	20%	20%
Shield (Second) – braid material	Al wire	Al wire	CuSn	CuSn
Shield (Second) – braid dimension	mm	mm	mm	mm
Shield (Second) – braid coverage	45 ± 3%	60 ± 3%	75 ± 3%	75 ± 3%
Third shield – foil 2 – material			Al/Pet/Al tape	Al/Pet/Al tape
Jacket – dimension	6.8 ± 0.2mm	6.86 ± 0.15mm	10.16 ± 0.15mm	10.16 ± 0.15mm
Jacket - material	PE	PE	PE	PE
SHIELDING				
Screening attenuation @ 30-1000 MHz	> 75dB	> 75dB	> 90dB	> 90dB
Screening attenuation @ 1000-2000 MHz	> 65dB	> 65dB	> 75dB	> 75dB
Screening attenuation @ 2000-3000 MHz	> 55dB	> 55dB	> 65dB	> 65dB
TRANSFER IMPEDANCE				
Transfer Impedance @ 5-30 MHz	< 15mΩ/m	mΩ/m	mΩ/m	mΩ/m
LOSS				
Attenuation (at 20°C) @ 5 MHz	1.9dB	2.66dB	1.25dB	1.25dB
Attenuation (at 20°C) @ 50 MHz	5.0dB	5.0dB	2.85dB	2.85dB
Attenuation (at 20°C) @ 200 MHz	9.0dB	9.0dB	5.84dB	5.84dB
Attenuation (at 20°C) @ 470 MHz	15.2dB	15.2dB	9.31dB	9.31dB
Attenuation (at 20°C) @ 862 MHz	20.1dB	19.0dB	13.15dB	13.15dB
Attenuation (at 20°C) @ 1000 MHz	21.49dB	21.5dB	14.27dB	14.27dB
Attenuation (at 20°C) @ 1350 MHz	23.5dB	25.33dB	16.99dB	16.99dB
Attenuation (at 20°C) @ 1750 MHz	26.5dB	28.4dB	19.80dB	19.80dB
Attenuation (at 20°C) @ 2150 MHz	31.2dB	30.5dB	22.40dB	22.40dB
RETURN LOSS				
Structural return loss @ 5-470 MHz	> 21dB	> 23dB	> 20dB	> 20dB
Structural return loss @ 470-1000 MHz	> 21dB	> 21dB	> 18dB	> 18dB
Structural return loss @ 1000-2000 MHz	> 18dB	> 18dB	> 16dB	> 16dB
Structural return loss @ 2000-3000 MHz	> 16dB	> 16dB	> 15dB	> 15dB
ELECTRICAL				
Impedance	75 ± 3Ω	75 ± 3Ω	75 ± 3Ω	75 ± 3Ω
Capacity	53pF/m	52 ± 3pF/m	53pF/m	53pF/m
Velocity ratio	81%	81%	83%	83%
Inner DC resistance	< 23Ω/km	< 102Ω/km	< 40Ω/km	< 9Ω/km
Outer DC resistance	< 58Ω/km	< 60Ω/km	< 12Ω/km	< 12Ω/km
OPERATIONAL				
Application	Outdoor	Outdoor	Outdoor	Outdoor
Fire Class	F _{ca}	F _{ca}	F _{ca}	F _{ca}
MECHANICAL				
Colour	Black	Black	Black	Black
Length (m)	100m	305m	305m	305/500m
Minimum bending radius - single/repeated	23/70mm	23/70mm	38/100mm	38/100mm

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TRIAX® RG6 multi colour cables

individually colour coded for easy mounting of multiswitches



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Triax Triple shielded multi colour cables

Triax Triple shielded multi colour cables are high quality cables for multiswitch installations. The colour codes of the cables can be used through the system and are suitable for Triax multiswitch colour coded connectors. Full copper inner conductors ensure low loss in your installation.



**18 MULTI 4 color cable,
6.7mm, PVC black,
100m drum**

Art. No. 731073

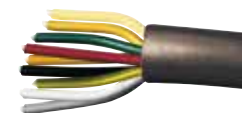
EAN Number
5702667310731



**18MULTI 5 color cable,
6.7mm, PVC white,
100m drum**

Art. No. 731074

EAN Number
5702667310748



**18MULTI 9 color cable,
6.7mm, PVC black,
50m drum**

Art. No. 731075

EAN Number
5702667310755



**18MULTI 9 color cable,
6.7mm, PVC black,
100m drum**

Art. No. 731076

EAN Number
5702667310762



**18MULTI 4 color cable,
6.7mm, PE color/PVC black,
100m drum**

Art. No. 731077

EAN Number
5702667310779

TRIAX® RG6 multi colour cables

cable range optimised to meet your needs!



Type:	MULTI 4 colour cable, PVC black, 100m drum	MULTI 5 colour cable, PVC white, 100m drum	MULTI 9 colour cable, PVC black, 50 / 100m drum	MULTI 4 colour cable, PE color/PVC black, 100m drum
Art. no.	731073	731074	731075 / 731076	731077
CONSTRUCTION				
Inner conductor - material	Cu	Cu	Cu	Cu
Inner conductor - dimension	1.00 ± 0.01mm	1.00 ± 0.01mm	1.00 ± 0.02mm	1.02 ± 0.02mm
Dielectric - material	PE gas injected	PE gas injected	PE gas injected	PE gas injected
Dielectric - dimension	4.8 ± 0.15mm	4.8 ± 0.15mm	4.8 ± 0.15mm	4.8 ± 0.15mm
Shield (First) foil 1 – material	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al
Shield (Second) – braid material	Al	Al	Al	Al
Shield (Second) – braid coverage	43 ± 2%	43 ± 2%	43 ± 2%	43 ± 2%
Third shield – foil 2 – material	Al/Pet	Al/Pet	Al/Pet	Al/Pet
Jacket – dimension	6.7 ± 0.2mm	6.7 ± 0.2mm	6.7 ± 0.2mm	6.7 ± 0.2mm
Jacket - material	PVC	PVC	PVC	PE
SHIELDING				
Screening attenuation @ 30-1000 MHz	> 85dB	> 85dB	> 85dB	> 85dB
Screening attenuation @ 1000-2000 MHz	> 75dB	> 75dB	> 75dB	> 75dB
Screening attenuation @ 2000-3000 MHz	> 65dB	> 65dB	> 65dB	> 65dB
LOSS				
Attenuation (at 20°C) @ 5 MHz	2.1dB	2.1dB	2.1dB	2.1dB
Attenuation (at 20°C) @ 50 MHz	4,9dB	4,9dB	4,9dB	4,9dB
Attenuation (at 20°C) @ 200 MHz	10dB	10dB	10dB	10dB
Attenuation (at 20°C) @ 800 MHz	19dB	19dB	19dB	19dB
Attenuation (at 20°C) @ 1000 MHz	22,5dB	22,5dB	22,5dB	22,5dB
Attenuation (at 20°C) @ 1350 MHz	25dB	25dB	25dB	25dB
Attenuation (at 20°C) @ 1750 MHz	29dB	29dB	29dB	29dB
Attenuation (at 20°C) @ 2150 MHz	32dB	32dB	32dB	32dB
RETURN LOSS				
Structural return loss @ 5-470 MHz	> 18 (return loss)dB	> 18 (return loss)dB	> 18 (return loss)dB	> 18 (return loss)dB
Structural return loss @ 470-1000 MHz	> 16 (return loss)dB	> 16 (return loss)dB	> 16 (return loss)dB	> 16 (return loss)dB
Structural return loss @ 1000-2000 MHz	> 12 (return loss)dB	> 12 (return loss)dB	> 12 (return loss)dB	> 12 (return loss)dB
Structural return loss @ 2000-3000 MHz	> 12 (return loss)dB	> 12 (return loss)dB	> 12 (return loss)dB	> 12 (return loss)dB
ELECTRICAL				
Impedance	75 ± 5Ω	75 ± 5Ω	75 ± 5Ω	75 ± 5Ω
Capacity	52.0 ± 3pF/m	52.0 ± 3pF/m	52.0 ± 3pF/m	52.0 ± 3pF/m
Inner DC resistance	< 21,3Ω/km	< 21,3Ω/km	< 21,3Ω/km	< 21,3Ω/km
Outer DC resistance	< 40Ω/km	< 40Ω/km	< 40Ω/km	< 40Ω/km
OPERATIONAL				
Application	Indoor	Indoor	Indoor	Outdoor
Fire Class	Eca	Eca	Eca	Fca
MECHANICAL				
Colour	Black	White	Black	Black
Length (m)	100m	100m	50m	100m
Minimum bending radius	190mm	185mm	205mm	250mm

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TRIAX® CAT6 cables

UTP connection cable



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Triax CAT 6 twisted pair cables

These 4 twisted pair 23 AWG Cat 6 cables are used in data communication networks for transmission of telephone, internet and video/TV signals.

In the creation of high quality networks the Cat 6 cables are ideal where your installation requires high bandwidth. The bandwidth limit is 250 MHz.

Allowing 10/100/1000 use with up to 100 meter cable length, supporting speeds up to 10 gigabits per second over shorter distances.

- 23 AWG Solid Bare Copper
- High speed gigabit Ethernet
- Superior performance and quality



**Cat 6 - LSZH white, 23AWG,
250MHz, U/UTP, 305 m**

Art. No. 155006

EAN Number
5702661550065



**Cat 6 - PVC grey, 23AWG,
250MHz, U/UTP, 305 m**

Art. No. 155001

EAN Number
5702661550010



**Cat 6 - PE black, 23AWG,
250MHz, U/UTP, 100 m**

Art. No. 155003

EAN Number
5702661550034



**Cat 6 - PE brown, 23AWG,
250MHz, U/UTP, 100 m**

Art. No. 155004

EAN Number
5702661550041

TRIAX® CAT6 cables

UTP connection cable

Type:	Cat 6 LSZH white 23AWG 250MHz U/UTP 305 m	Cat 6 PVC grey 23AWG 250MHz U/UTP 305 m	Cat 6 PE black 23AWG 250MHz U/UTP 100 m	Cat 6 PE brown 23AWG 250MHz U/UTP 100 m
Art. no.	155006	155001	155003	155004
CONSTRUCTION				
Inner conductor - material	Solid Bare Cu			
Inner conductor - dimension	0.53 ±0.005mm			
Flat filler - material	PE Spline			
Insulation material	Solid PE			
Jacket - dimension	6.0 ± 0.50mm			
Jacket - thickness	0.5mm			
Jacket - material	LSZH	PVC	PE	PE
Colour code - Pair 1	Blue / White-Blue			
Colour code - Pair 2	Orange / White-Orange			
Colour code - Pair 3	Green / White-Green			
NEXT				
Next @ 1 MHz	74.30dB	74.30dB	74.30dB	74.30dB
Next @ 4 MHz	65.30dB	65.30dB	65.30dB	65.30dB
Next @ 10 MHz	59.30dB	59.30dB	59.30dB	59.30dB
Next @ 16 MHz	56.20dB	56.20dB	56.20dB	56.20dB
Next @ 25 MHz	53.30dB	53.30dB	53.30dB	53.30dB
Next @ 31.25 MHz	51.90dB	51.90dB	51.90dB	51.90dB
Next @ 100 MHz	44.30dB	44.30dB	44.30dB	44.30dB
Next @ 200 MHz	39.80dB	39.80dB	39.80dB	39.80dB
Next @ 250 MHz	38.30dB	38.30dB	38.30dB	38.30dB
LOSS				
Attenuation (at 20°C) @ 1 MHz	2.00dB	2.00dB	2.00dB	2.00dB
Attenuation (at 20°C) @ 4 MHz	3.80dB	3.80dB	3.80dB	3.80dB
Attenuation (at 20°C) @ 10 MHz	6.00dB	6.00dB	6.00dB	6.00dB
Attenuation (at 20°C) @ 16 MHz	7.60dB	7.60dB	7.60dB	7.60dB
Attenuation (at 20°C) @ 25 MHz	9.50dB	9.50dB	9.50dB	9.50dB
Attenuation (at 20°C) @ 31.25 MHz	10.70dB	10.70dB	10.70dB	10.70dB
Attenuation (at 20°C) @ 100 MHz	19.80dB	19.80dB	19.80dB	19.80dB
Attenuation (at 20°C) @ 200 MHz	29.00dB	29.00dB	29.00dB	29.00dB
Attenuation (at 20°C) @ 250 MHz	32.80dB	32.80dB	32.80dB	32.80dB
RETURN LOSS				
Return loss @ 1 MHz	20.00dB	20.00dB	20.00dB	20.00dB
Return loss @ 4 MHz	23.00dB	23.00dB	23.00dB	23.00dB
Return loss @ 10 MHz	25.00dB	25.00dB	25.00dB	25.00dB
Return loss @ 16 MHz	25.00dB	25.00dB	25.00dB	25.00dB
Return loss @ 25 MHz	24.30dB	24.30dB	24.30dB	24.30dB
Return loss @ 31.25 MHz	23.60dB	23.60dB	23.60dB	23.60dB
Return loss @ 100 MHz	20.10dB	20.10dB	20.10dB	20.10dB
Return loss @ 200 MHz	18.00dB	18.00dB	18.00dB	18.00dB
Return loss @ 250 MHz	17.30dB	17.30dB	17.30dB	17.30dB
ELECTRICAL				
Characteristic imp. (1-100 MHz)	100 ±15Ω	100 ±15Ω	100 ±15Ω	100 ±15Ω
Characteristic imp. (100-250 MHz)	100 ±20Ω	100 ±20Ω	100 ±20Ω	100 ±20Ω
Conductor DC resistance @ 20°C	< 950hm/km	< 950hm/km	< 950hm/km	< 950hm/km
Mutual capacity @ 1kHz	< 1500pF/m	< 1500pF/m	< 1500pF/m	< 1500pF/m
OPERATIONAL				
Application	Indoor	Indoor	Outdoor	Outdoor
Fire Class	D _{ca}	E _{ca}	F _{ca}	F _{ca}
MECHANICAL				
Colour	White	Grey	Black	Brown
Length (m)	305m	305m	100m	100m
Min. bending radius - single/repeated	8xDmm	8xDmm	8xDmm	8xDmm

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TRIAx® CAT6 cables

patch leads – 250 MHz stranded copper 23 AWG



Features and benefits

These 4 twisted pair 23 AWG Cat 6 cables are used in data communication networks for transmission of telephone, internet and video/TV signals.

In the creation of high quality networks the Cat 6 cables are ideal where your installation require high bandwidth. The bandwidth limit is 250 MHz.

Allowing 10/100/1000 use with up to 100 meter cable length, supporting speeds up to 10 gigabits per second over shorter distances.

- 23 AWG Solid Bare Copper
- High speed gigabit Ethernet
- Superior performance and quality



Cat 6-Grey, 0.5m patch leads - Premium Grade

Art. No. 157001

EAN Number
5702661570018



Cat 6-White, 15.0m patch leads - Premium Grade

Art. No. 157068

EAN Number
5702661570681



Cat 6-White, 3.0m patch leads - Premium Grade

Art. No. 157065

EAN Number
5702661570650



Cat 6-Red, 0.5m patch leads - Premium Grade

Art. No. 157021

EAN Number
5702661570216



Cat 6-White, 10.0m patch leads - Premium Grade

Art. No. 157067

EAN Number
5702661570674

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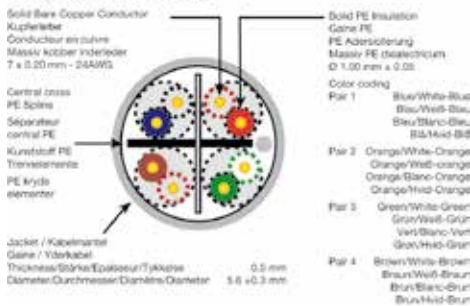
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TRIAx® CAT6 cables

patch leads – 250 MHz stranded copper 23 AWG

Dimensions / Abmessungen Dimensions / Dimension



Type:	Cat 6, 0.5m patch leads Premium Grade	Cat 6, 3.0m patch leads Premium Grade	Cat 6, 10.0m patch leads Premium Grade	Cat 6, 15.0m patch leads Premium Grade
CONSTRUCTION				
Inner conductor - material	Stranded Bare Cu			
Inner conductor - dimension	7x 0.2mm			
Jacket - dimension	5.6 ± 0.30mm			
Jacket - material	PVC (UL approved)			
Jacket - thickness	0.5mm			
Colour code - Pair 1	Blue / White-Blue			
Colour code - Pair 2	Orange / White-Orange			
Colour code - Pair 3	Green / White-Green			
Colour code - Pair 4	Brown / White-Brown			
Flat filler - material	Flexible PE			
Insulation dimension	1.02 ± 0.05mm			
Insulation material	Solid PE			
NEXT				
Next @ 4 MHz	65.0dB			
Next @ 8 MHz	65.0dB			
Next @ 10 MHz	65.0dB			
Next @ 20 MHz	59.1dB			
Next @ 31.25 MHz	55.4dB			
Next @ 62.5 MHz	49.6dB			
Next @ 100 MHz	45.7dB			
Next @ 200 MHz	40.1dB			
Next @ 250 MHz	38.3dB			
RETURN LOSS				
Return loss @ 4 MHz	21.6dB			
Return loss @ 8 MHz	22.5dB			
Return loss @ 10 MHz	22.8dB			
Return loss @ 20 MHz	23.7dB			
Return loss @ 31.25 MHz	23.1dB			
Return loss @ 62.5 MHz	20.0dB			
Return loss @ 100 MHz	18.0dB			
Return loss @ 200 MHz	15.0dB			
Return loss @ 250 MHz	14.0dB			
ELECTRICAL				
Characteristic imp. (1-100 MHz)	100 ±15Ω			
Characteristic imp. (100-250 MHz)	100 ±20Ω			
CONNECTORS				
Connector Type	RJ45			

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TRIAX® High and Standard Speed HDMI™

professional grade, high quality HDMI cable



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Features and benefits

- High Speed HDMI with Ethernet (1.5, 2, 3, 5m)
- Standard Speed HDMI with Ethernet (10,15, 20m)
- HDMI Ethernet Channel
- Audio Return Channel
- 24K Gold Plated Connectors
- 3D and 4K Resolution Support
- Compact EMI Interface suppressed
- High quality AWG cables to reduce attenuation
- Compatible with all HD resolutions including 720p, 1080i and 1080p video formats
- Expanded Support for Colour Spaces
- Fully Shielded
- For connecting HD set top boxes, DVD players, games consoles and all other HDMI AV equipment



High Speed HDMI cable with Ethernet - 1.5m Blisterpack

Art. No. 370715

EAN Number
5702663707153



High Speed HDMI cable with Ethernet - 5.0m Blisterpack

Art. No. 370718

EAN Number
5702663707184



High Speed HDMI cable with Ethernet - 2.0 m Blisterpack

Art. No. 370716

EAN Number
5702663707160



High Speed HDMI cable with Ethernet - 3.0m Blisterpack

Art. No. 370717

EAN Number
5702663707177



x.v.Colour

TRIAX[®] High and Standard Speed HDMI[™]

professional grade, high quality HDMI cables with ethernet



Standard Speed HDMI cable with Ethernet - 10.0m Blisterpack

Art. No. 370719

EAN Number
5702663707191



Standard Speed HDMI cable with Ethernet - 20.0m Blisterpack

Art. No. 370721

EAN Number
5702663707214



Standard Speed HDMI cable with Ethernet - 15.0m Blisterpack

Art. No. 370720

EAN Number
5702663707207



Type:	High Speed HDMI cable with Ethernet 1.5m / 2.0m / 3.0m / 5.0m Blisterpack	Standard Speed HDMI cable with Ethernet 10.0m / 15.0m / 20.0m Blisterpack
Art. no.	370715 / 370716 / 370717 / 370718	370719 / 370720 / 370721
CHARACTERISTICS		
Ferrite	2pcs.	2pcs.
CONSTRUCTION		
Inner conductor - dimension	28 AWGmm	26 AWGmm
Shield (Second) – braid material	Al. Alloy	Al. Alloy
Jacket – dimension	7.3mm	9.5mm
Jacket - material	PVC	PVC
Plug - material	Gold plated	Gold plated
CONNECTORS		
Connector - left	1 x 19-pin HDMI male	1 x 19-pin HDMI male
Connector - right	1 x 19-pin HDMI male	1 x 19-pin HDMI male



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TRIAX® RF-Cable cables

IEC-male / IEC-female – Standard, Blister pack and High Grade



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RF-cable – features and benefits

TRIAX's assortment of high grade RF-coax cables. To connect a TV or radio to an aerial socket with an straight IEC-male/IEC-female

- White, 75 ohms double shielded cable
- With IEC coax connectors and jacks
- Fully assembled
- High shielding (> 90 dB)

Standard RF-cable in blister pack



RF-Cable 1.5 m
IEC-male/IEC-female straight
- blister

Art. No. 153500

EAN Number
5702661535000



RF-Cable 2.5 m
IEC-male/IEC-female straight
- blister

Art. No. 153501

EAN Number
5702661535017



RF-Cable 5.0 m
IEC-male/IEC-female straight
- blister

Art. No. 153502

EAN Number
5702661535024



RF-Cable 10.0 m
IEC-male/IEC-female straight
- blister

Art. No. 153504

EAN Number
5702661535048



RF-Cable 15.0 m
IEC-male/IEC-female straight
- blister

Art. No. 153505

EAN Number
5702661535055

TRIAX[®] RF-Cable cables

IEC-male / IEC-female – Standard, Blister pack and High Grade

High grade - RF-cables



High Grade Antenna Cable
CTV A 1.5 m - IEC-male/
IEC-female straight - blister

Art. No. 153530
EAN Number
5702661535307



High Grade Antenna Cable
CTV A 5.0 m - IEC-male/
IEC-female straight - blister

Art. No. 153532
EAN Number
5702661535321



High Grade Antenna Cable
CTV A 3.0 m - IEC-male/
IEC-female straight - blister

Art. No. 153531
EAN Number
5702661535314



High Grade Antenna Cable
CTV A 10.0 m - IEC-male/
IEC-female straight - blister

Art. No. 153534
EAN Number
5702661535345

Standard RF-cable



RF-Cable 1.5 m
IEC-male/IEC-female straight
- polybag

Art. No. 153400
EAN Number
5702661534003



RF-Cable 7.5 m
IEC-male/IEC-female straight
- polybag

Art. No. 153403
EAN Number
5702661534034



RF-Cable 2.5 m
IEC-male/IEC-female straight
- polybag

Art. No. 153401
EAN Number
5702661534010



RF-Cable 10.0 m
IEC-male/IEC-female straight
- polybag

Art. No. 153404
EAN Number
5702661534041



RF-Cable 5.0 m
IEC-male/IEC-female straight
- polybag

Art. No. 153402
EAN Number
5702661534027

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TRIAX® Connection cables

AV, HF and assembly kit



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Connection cables for AV- and decoder connection

TRIAX's selection of connection cables for use with decoders and other electronic accessories.

Available in different combinations and length:

- 15 pol D-sub connector
- RCA phone male connector
- Scart male connector



**AV cable 1.50 m
15 pol D-Sub/3xRCA**

Art. No. 300745

EAN Number
5702663007451



**AV cable 1.50 m
15 pol D-sub/Scart**

Art. No. 300742

EAN Number
5702663007420

TRIAX® Connection cables

AV, HF and assembly kit

Connection cables for HF connection



CHF 015
Connecting lead black
2 x F-male Quick angled
15 cm

Art. No. 360408

EAN Number
5702663604087



CHF 126
Connecting lead black
2 x F-male Quick angled
50 cm

Art. No. 724012

EAN Number
5702667240120



CHF 125
Connecting lead black
2 x F-male Quick angled
25 cm

Art. No. 724006

EAN Number
5702667240069



CHF 200
Connecting lead black
2 x F-male Quick angled
2.0 m

Art. No. 724010

EAN Number
5702667240106

Cables assembly kit



CC-SP 01
cable assembly kit

Art. No. 153540

EAN Number
5702661535406



CFC 680
Plastic Dowels White

Art. No. 90680

EAN Number
5702660906801



CC-SP 02
cable assembly kit

Art. No. 153542

EAN Number
5702661535420



CFC 681
Plastic Dowels Black

Art. No. 90679

EAN Number
5702660906795

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TRIAX[®] Connectors

F-compression types



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F-compression connectors

Below you will find a selection of F-compression connectors suitable for TRIAX's cable portfolio.

We offer only the best for the installation of your high-quality distribution systems

- For indoor and outdoor installations
- Used by leading network operators
- High shielding
- Large range for all applications



**F-compression connector
F56-CX3-4.9
100 pcs. box**

Art. No. 153220

EAN Number
5702661532207



**F-compression connector
CX3 7.0 QM (Quick-mount)
with o-ring
50 pcs. box**

Art. No. 360943

EAN Number
5702663609433



**F-compression connector
F56-CX3-5.1 short
100 pcs. box**

Art. No. 153221

EAN Number
5702661532214



**F-compression connector
CX3 5.0 QM short
50 pcs. box**

Art. No. 360949

EAN Number
5702663609495



**F-compression connector
5.1/6.8
100 pcs. bag**

Art. No. 360913

EAN Number
5702663609136

TRIAX[®] Connectors

F-compression types



**F-compression
IEC-male 4.9/6.8
100 pcs. box**

Art. No. 153226

EAN Number
5702661532269



**F-compression
CX3 4.9 SC short
100 pcs. box**

Art. No. 360948

EAN Number
5702663609488



**F-compression connector
5.1/6.8 short
100 pcs. bag**

Art. No. 153224

EAN Number
5702661532245



**F-compression RG11
CX3-10.5 QM
25 pcs. box**

Art. No. 711571

EAN Number
5702667115718



**F-compression connectors
3.8/5.2
1 pcs.**

Art. No. 153225

EAN Number
5702661532252



**F-compression connector
RG11-CX3-11.3 QM
25 pcs. box**

Art. No. 711572

EAN Number
5702667115725



**F-compression connector
7.5/11.5
50 pcs. bag**

Art. No. 153227

EAN Number
5702661532276



Compression Set 6- 49

Art. No. 350265

EAN Number
5702663502659



**F-compression
CX3 5.1 SC short
100 pcs. box**

Art. No. 360947

EAN Number
5702663609471

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TRIAX[®] Connectors

F-push on and self-install types

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F-push on and Self install connectors

Below you will find F-push on connectors suitable for the TRIAX cable portfolio.

- Ideal for hard and cold cables
- Easy to mount
- Water protected by O-ring
- Class A +

You will also find F-Self install connectors suitable for the TRIAX cable portfolio.

- The ideal solution for home applications
- No assembly tool needed
- No wear on the bushes
- Class A +



F-Push-On connector
5.1/6.8
100 pcs. box

Art. No. 153250
EAN Number
5702661532504



F-Self Install connector
F-56 5.1/Tool Kit
Blister

Art. No. 153266
EAN Number
5702661532665



F-Self-install connector
F56-5.1 blue
100 pcs. box

Art. No. 153264
EAN Number
5702661532641



F-Self-install connector
F56-4.9 yellow
100 pcs. box

Art. No. 153265
EAN Number
5702661532658

TRIAX® Connectors

F-crimp types

F-crimp connectors

On this page you will find a selection of F-crimp connectors suitable for Triax cable portfolio.

We offer only the best for the installation of your high-quality distribution systems

- For indoor and outdoor installations
- CRP assembly tool needed
- Class A +



**F-crimp connector
F56-ALM 5.1/8.4
100 pcs. box**

Art. No. 153203
EAN Number
5702661532030



**F-crimp connector
ALM 7.6/11.7
50 pcs. box**

Art. No. 153231
EAN Number
5702661532313



**F-crimp connector
ALM 3.7/6.4
100 pcs. box**

Art. No. 153204
EAN Number
5702661532047



**F-crimp connector
RG11
50 pcs. box**

Art. No. 153232
EAN Number
5702661532320



**F-crimp connector
4.9/8.4 Triax
100 pcs. bag**

Art. No. 153212
EAN Number
5702661532122

**F-crimp connector
SFC 250 Set
100 pcs. box**

Art. No. 350294
EAN Number
5702663502949

**F-crimp connector
4.9/8.4
100 pcs. bag**

Art. No. 153215
EAN Number
5702661532320

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TRIAX[®] Connectors

F-twist on types



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F-twist on connectors



F-twist on connector

1.9/3.5

5 pcs. bag

Art. No. 153049

EAN Number

5702661530494



F-twist on connector

4.9/6.8

100 pcs. bag

Art. No. 153073

EAN Number

5702661530739



F-twist on connector

4.9/7.3

5 pcs. bag

Art. No. 153052

EAN Number

5702661530524



F-twist on connector

4.9/7.3

100 pcs. bag

Art. No. 153074

EAN Number

5702661530746



F-twist on connector

4.9/6.8

5 pcs. bag

Art. No. 153053

EAN Number

5702661530531



F-twist on connector

4.9/6.8 without logo

100 pcs. bag

Art. No. 153078

EAN Number

5702661530784



F-twist on connector

3.5/5.0

100 pcs. bag

Art. No. 153072

EAN Number

5702661530722

TRIAX® Connectors

IEC types

IEC connectors

The popular and easy-to-install KOSWI/KOSWI designed for easy installation are available in a 90 degree angled version, with both male and female connectors ideal in tight spaces, such as a behind a flat-screen, where extra thin wall mounts make it impossible to use a straight version.

The angled IEC Self-Install™ connectors with the unique Self-Install™ system the connector is easily installed with a minimum of effort.

Common features:

- Reusable
- Class A screening
- No need for compression tools
- Two piece connector – no loose parts
- Professional quality and excellent performance
- Fits standard RG6 cables (connector size 4.9 and 5.1)



KOSWI 4 IEC coax plug, angled, male in bag

Art. No. 154110

EAN Number
5702661541100



KOSWI 4 IEC coax plug, angled, female in bag

Art. No. 154111

EAN Number
5702661541117



KOSWI 3 IEC coax plug, angled, male

Art. No. 153110

EAN Number
5702661531101



KOKWI 3 IEC coax plug, angled, female

Art. No. 153111

EAN Number
5702661531118



KOS 3 IEC coax plug, male

Art. No. 153120

EAN Number
5702661531200



KOK 3 IEC coax plug, female

Art. No. 153121

EAN Number
5702661531217



IEC - Self Install plug 56/5.1, straight, male

Art. No. 153130

EAN Number
5702661531309



IEC - Self Install plug 56/5.1, straight, female

Art. No. 153131

EAN Number
5702661531316



IEC - Self Install plug 56/5.1, angle, male

Art. No. 153132

EAN Number
5702661531323



IEC - Self Install plug 56/5.1, angle, female

Art. No. 153133

EAN Number
5702661531330

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TRIAX® Adapters

F-types



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F-adaptors



**F-female/F-female
adaptor**
100 pcs. bag

Art. No. 153076
EAN Number
5702661530760



**F-female/F-female
adaptor with nuts**
5 pcs. bag

Art. No. 153593
EAN Number
5702661535932



**F-female/F-female
adaptor - A+**
100 pcs. bag

Art. No. 153095
EAN Number
5702661530951



**F-male/F-male
adaptor**
5 pcs. bag

Art. No. 153596
EAN Number
5702661535963



**F-female/F-female
adaptor**
2 pcs. in blister

Art. No. 153292
EAN Number
5702661532924



**F-female/F-male
Quick adaptor**
10 pcs. bag

Art. No. 153612
EAN Number
5702661536120



**F-female/F-male
adaptor angled**
100 pcs.

Art. No. 153592
EAN Number
5702661535925



**F-male Quick/F-male
Quick adaptor, KVFC 03**
10 pcs. bag

Art. No. 350269
EAN Number
5702663502697

TRIAX® Adapters

IEC-types

IEC-adapters

TRIAX have a wide range of adapters available for CATV applications. The price/performance ratio is superior even on our standard products – the finest available on the market.

The range of adapters are designed with many interface combinations and many special versions with or without extensions.

Common features:

- Reusable
- Class A screening
- One piece connector - no loose parts
- Professional quality and excellent performance
- Fits the highest standard on the market



IEC-male/F-female adaptor angled, 100 pcs. bag

Art. No. 153550
EAN Number
5702661535505



IEC-female/F-female adaptor angled, 100 pcs. bag

Art. No. 153551
EAN Number
5702661535512



IEC-male/F-male adaptor, 2 pcs. blister

Art. No. 153554
EAN Number
5702661535543



IEC-female/F-male adaptor, 2 pcs. blister

Art. No. 153555
EAN Number
5702661535550



IEC-male/F-male adaptor, 100 pcs. bag

Art. No. 153610
EAN Number
5702661536106



IEC-female/F-male adaptor, 100 pcs. bag

Art. No. 153611
EAN Number
5702661536113



IEC-male/F-female adaptor, 100 pcs. bag

Art. No. 153613
EAN Number
5702661536137



IEC-female/F-female adaptor, 100 pcs. bag

Art. No. 153614
EAN Number
5702661536144

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TRIAX® Tools

cable stripper, crimp tools, cable cutter



Cable stripper, crimp tools, cable cutter

Cable Strippers make it very simple and easy to prepare your cables for connection. Preparation is simply done in "one shot" only.

Standard crimp tools are available in different crimp size combinations

Compression crimp tools. TRIAX have different types of tools, easy to use with changeable plunger tips.

Pocket Compression Tool is inexpensive, easy to use and fits well in any pocket.

All tools supplied from TRIAX come with full instructions for correct use. You can also see how-to videos in the support section of our website – www.triax.com.



Cable stripper RG11 cable types

Art. No. 153601

EAN Number
5702661536014



Cable Support Tool F-key

Art. No. 153608

EAN Number
5702661536083



Compression Tool CX3

Art. No. 153603

EAN Number
5702661536038



Pocket Compression Tool - for long & short connectors

Art. No. 153631

EAN Number
5702661536311



CRP 106H Crimp Tool (.324" & .360")

Art. No. 153607

EAN Number
5702661536076



Insertion Tool for F-connectors

Art. No. 153633

EAN Number
5702661536335

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Universal Cable Cutter

Art. No. 153636

EAN Number
5702661536366

Cabel stripper with HEX wrench

Art. No. 153637

EAN Number
5702661536373



KABI Multi Tool for stripping and cutting cables blisterpack

Art. No. 153638

EAN Number
5702661536380



Pocket Compression Tool VT 150 for short and long connectors

Art. No. 350262

EAN Number
5702663502628



Cable stripper - DEN 6768 (RG 6, 17 VAtC ..)

Art. No. 360918

EAN Number
3700113426342

Pocket Compression Tool Triax - for long connectors

Art. No. 360919

EAN Number
3700113426359



Compression Tool Universal

Art. No. 360920

EAN Number
3700113426366



MS 13 Mounting T-tool

Art. No. 360921

EAN Number
3700113426724



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TRIAX[®] Accessories

power cable, F-terminators, attenuator



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RFC 75
F-male Terminator
5 pcs. bag

Art. No. 153054

EAN Number
5702661530548



R 77 (75 Ohm)
F-male Termination resistor,
no DC blocker

Art. No. 302065

EAN Number
5702663020658



VA20F
0...20 dB / 47...862 MHz

Art. No. 153600

EAN Number
5702661536007



F-twist on connector
SFC 052

Art. No. 350257

EAN Number
5702663502574



True Lock Connector
FM-TL444

Art. No. 153583

EAN Number
5702661535833

TRIAX® Outlets, Taps & Splitters

making connectivity easy

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TRIAX antenna wall outlets

reliable, innovative and easy to mount



The advantages of TRIAX antenna outlet sockets:

- quick and easy mounting
- superb electrical performance
- reliable and durable

Antenna outlet sockets are used to connect subscriber terminal equipment such as TV receivers, FM radios, SAT receivers or cable modems to the cable TV network or the house antenna system.

In view of their versatility, TRIAX recommends universal antenna outlets for installation in general residential buildings. If the future application is limited to only one type of network operation such as direct satellite reception or cable TV with Internet access, specially designed satellite or wide-band socket boxes are the alternative.

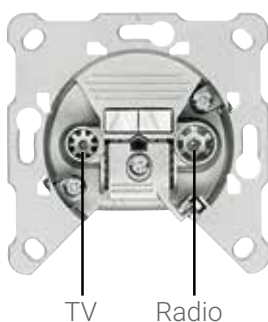
The connectors are designed as IEC connectors or F-connectors. The number and combination of the connectors of an outlet type depends on the subscriber terminal equipment that is common for the respective type of network. However, it is also influenced by specific national and operator requirements resulting in an increased variety of socket types.

The stable diecast frame of TRIAX sockets has been optimised for installation in round, size-55 flush-mounted socket boxes. The AR 20 frame accessory as an alternative allows surface mounting. The AD 23 cover accessory is available for 2- or 3-hole socket boxes. The retaining ring form of the socket inserts has been agreed with renowned switch manufacturers, so that decorative covers from their corresponding designer ranges can also be used.

Socket types

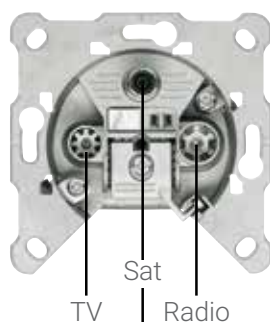
Double antenna outlet sockets

Universal sockets suitable for satellite, terrestrial and broadband cable/CATV



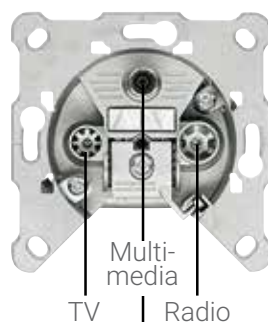
Triple antenna outlet sockets – sat

For individual satellite and SMATV installations.



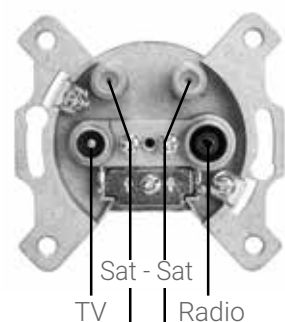
Triple antenna outlet sockets – multimedia

For individual multimedia and SMATV installations.



Quatro antenna outlet sockets

For use in some multiswitch installations (star or tree)



Take only the best

mechanical advantages and assortment overview

Hassle-free installation on all outlets

Push-lock terminal

Rapid mounting. Firmly secured.
Released at the press of a button.

New retaining ring geometry

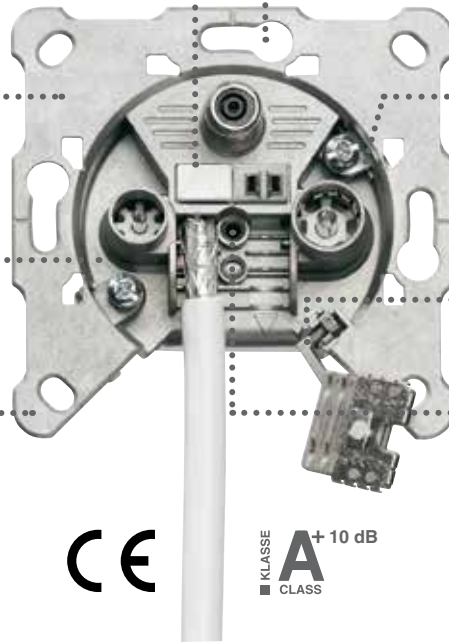
Universal for renowned ranges of switches. For easy aligning and improved mould closure.

Reduced depth and diameter

Easy to insert into flush-mounted socket box.

Waste edges at frame corners

Well equipped for ranges of round switches
(Can be broken off if necessary).



Third keyhole

Improved fixing in hollow-wall flush-mounted socket box.

Novel claw fastening & close-fitting claw form

Trouble-free installation in and removal from flush-mounted socket box, also with cordless screwdriver (PZ 1-bolt).

Lockable hinged clamp

Comfortable in all mounting positions.

Inner conductor terminal in box centre

Facilitates the connection of short cable ends when socket boxes are replaced.



Assortment overview of all TRIAX outlet – inserts in push clamp technology

Application	Universal		SAT / MATV / SMATV			CATV / DOCSIS	
Plug							
Antenna outlet type	Super wide-band	SAT/CATV combination	SAT-Filter	TWIN Sat	SAT-Filter	CATV Switchable DOCSIS filters	CATV Fix DOCSIS filters
Single type	EDU 04F	EDA 302F	EDS 01	EDS 322 F	FS 302 F	EDM 6 DS	EDM 1 EDM 6
Pass-through type	GEDU 10, 15, 20	GDA 313 F	GDS 08, 11			GDM 10 DS GDM 12 DS GDM 15 DS GDM 19 DS	GDM 10 GDM 12 GDM 15 GDM 19
Frequency range							
In/Out							
Tv							
Radio							
Sat/Data							
Terminal equipment	TV-set FM radio DVB-C/-T receiver	Sat receiver Tv-set FM radio DVB-C/-T receiver	Sat receiver DVB-T receive TV-set	Twin sat receiver DVB-T receiver Tv-set	Sat receiver DVB-T receive Tv-set	Tv-set FM radio Cable modem DVB-C receiver	Tv-set FM radio Cable modem DVB-C receiver

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- HEADENDS CAS SYSTEM MODULATORS
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TRIAX CATV Multimedia outlets

your choice for future proof installations



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3-port multimedia wall outlets – for DOCSIS operation

We're making it easy to prepare for the network of tomorrow, with our brand new range of 3-port multimedia wall outlets for TV, radio and data.

Our fully updated platform saves you time now and money in the future, bringing you cutting-edge electrical performance alongside our tried and trusted, hassle-free installation solution. Available in single terminated (EDM) and loop through (GDM) models.

Your benefits:

- Superb electrical performance
- High shielding and expanded frequency range
- Quick and easy mounting
- Approved by Vodafone - Kabel Deutschland

As the demand for ever higher bandwidth grows, users expect a high quality, reliable service from their CATV provider. At TRIAX we're proud to have developed an outlet solution that exceeds technical demands while making the installation process a breeze. We're taking the pain out of your network upgrade.

Our expanded frequency range gives you all you need to exploit the blistering data speeds of future DOCSIS 3.1 network upgrades, whilst supporting today's standards. By choosing to upgrade with our fully updated platform, you can expect:

Future proof operation

- Frequency range of 5-1200-1800 MHz for all levels of DOCSIS 3.1 migration – still compatible with standards. (5-65 MHz Data return path, 87.5-108 MHz Radio, 109-862MHz TV)

Unrivalled reliability

- High isolation between Data and TV ports, and low intermodulation, suppress TV signal interference caused by upstream modem traffic.
- Class A+ 10dB screening attenuation protects against ingress and LTE interference.
- IEC-standard contacts for cables and connectors guarantee reliable and long lasting operation.

Clear cost savings

- Low insertion loss, finely graded tap losses: the flattest possible frequency response means less amplifier power in the network.
- Tried and trusted push-lock mechanism: unbeatably fast and efficient installation.

Shielding on outlets, taps and splitters according to EN50083-2-standard

EN 50083-2	Screening attenuation MHz				
MHz	5-30	30-300	300-470	470-950	950-3000
Class B	> 75 dB	> 75 dB	> 75 dB	> 65 dB	> 50 dB
Class A	> 85 dB	> 85 dB	> 80 dB	> 75 dB	> 55 dB
Class A +10dB*	> 95 dB	> 95 dB	> 90 dB	> 85 dB	> 65 dB

* is products that fullfils TRIAX own +10 dB standard

3-Port DOCSIS Switch Multimedia Outlets

flexible for DOCSIS 3.0 and 3.1 operation

DOCSIS Switch Multimedia Wall Outlets - EDM/GDM xx DS

Our new DOCSIS Switch wall outlets are specially developed to operate with the current up to 65 MHz return path standard, as well as for the extension of the return path frequency range in future DOCSIS 3.1 implementation.

The solution:

By using the small "DOCSIS Switch" located behind the outlet's cover plate, the return path filters in the multimedia outlet can be switched between two setups:

Switch in base position

- Upstream 5-65 MHz:
downstream FM, TV starting from 109 MHz
- Upstream 5-85 MHz:
downstream no FM, TV starting from 109 MHz

Switch in "+" position

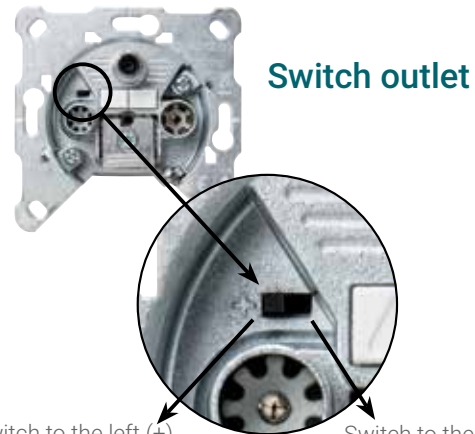
- Upstream 5-204 MHz:
no FM, TV starting from 258 MHz
- Upstream 5-400 MHz:
downstream no FM, TV starting from around 500 MHz

Your benefits:

Save money and maintain a satisfied customer base when network upgrades to different levels of DOCSIS 3.1 take place during the coming years – our outlets won't need to be replaced or have unwelcome filters attached.

Special characteristics:

- Return path filter switchable between 65/85 MHz <-> 204 MHz – high isolation between Data and TV ports at all levels of DOCSIS operation levels suppresses TV signal interference caused by upstream modem traffic.
- Frequency range of 5-1200-1800 MHz – ready for all relevant frequency allocations of DOCSIS 2.0, 3.0 and 3.1.
- Enhanced screening attenuation Class A+ 10dB – protects against interference distortions such as ingress and LTE mobile radio.
- Low intermodulation – avoids composite beat distortions within the TV band caused by parallel operation of the cable modem.
- Tried and trusted TRIAX outlet mechanic with push-clamp connectors, Made in Denmark – for unbeatably fast and efficient installation.



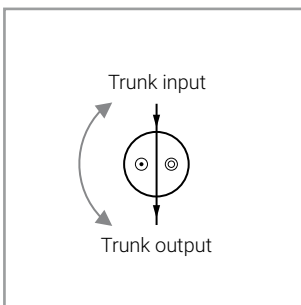
Switch to the left (+)
DOCSIS Upstream
5-204-(400) MHz

Switch to the right
DOCSIS Upstream
5-65-85 MHz

Attenuation in outlets

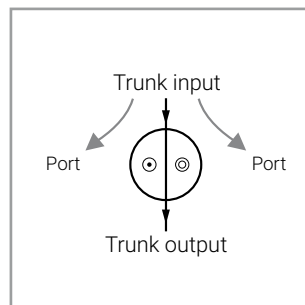
Insertion loss IN-OUT

Attenuation between trunk input and trunk output



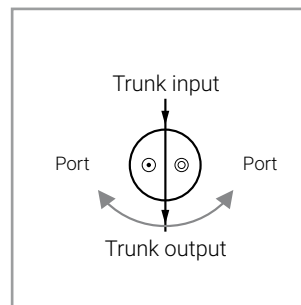
Insertion loss IN-Port

Attenuation between trunk input and port for TV, FM-R, SAT, DATA



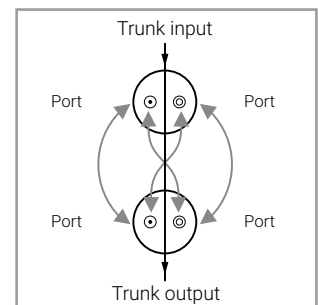
Isolation

Attenuation between ports and trunk output and ports



External isolation

(2 outlet method)
Attenuation between the ports of two antenna outlets



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TRIAX® Outlets for CATV applications

with switchable return path filters ready for DOCSIS 2.0/3.0 and 3.1 operation



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Make the future possible today

- Return path filter switchable between 65/85 MHz <-> 204 MHz – high isolation between Data and TV ports at all levels of DOCSIS operation levels suppresses TV signal interference caused by upstream modem traffic.
- Frequency range of 5-1200-1800 MHz – ready for all relevant frequency allocations of DOCSIS 2.0, 3.0 and 3.1.
- Enhanced screening attenuation Class A +10dB – protects against interference distortions such as ingress and LTE mobile radio.
- Low intermodulation – avoids composite beat distortions within the TV band caused by parallel operation of the cable modem.



**EDM 6 DS, 3-way
Multimedia Wall Outlet**

Art. No. 306276

EAN Number
5702663062764



**GDM 15 DS, 3-way
Multimedia Wall Outlet**

Art. No. 306279

EAN Number
5702663062795



**GDM 10 DS, 3-way
Multimedia Wall Outlet**

Art. No. 306277

EAN Number
5702663062771



**GDM 19 DS, 3-way
Multimedia Wall Outlet**

Art. No. 306280

EAN Number
5702663062801



**GDM 12 DS, 3-way
Multimedia Wall Outlet**

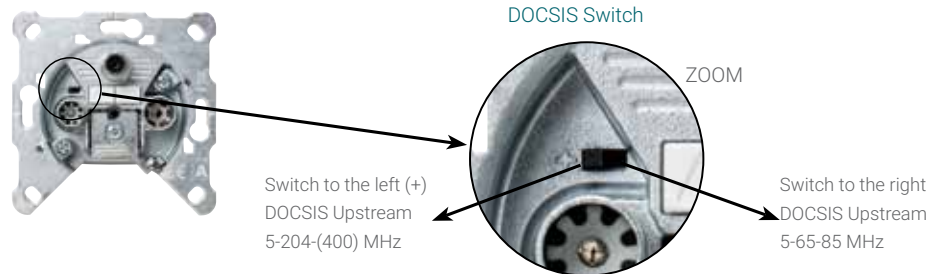
Art. No. 306278

EAN Number
5702663062788



3-port DOCSIS Switch Multimedia Outlets

your access to all current and future services



Type		EDM 6 DS, 3-way. Switch Outlet	GDM 10 DS, 3-way Switch Outlet	GDM 12 DS, 3-way Switch Outlet	GDM 15 DS, 3-way Switch Outlet	GDM 19 DS, 3-way Switch Outlet
Art. No.		306276	306277	306278	306279	306280
Outlet Type		Terminated		Loop through		
INSERTION LOSS						
IN > OUT						
5 - 1218 MHz	dB ± 1	-	3,8	2,8	1,6	1,6
1218 - 1794 MHz	dB ± 1.5	-	4,8	3,8	2,6	2,4
IN > DATA						
5 - 1218 MHz	dB ± 1	6	10,2	12,5	15	19
1218 - 1794 MHz	dB ± 1	7	11,2	13,5	16	19
DOCSIS Switch position						
left on +			right (default)			
IN > TV						
5 - 204 MHz	dB >	52	52	52	52	52
258 - 1000 MHz	dB ± 1	6,5	10,5	12,5	15,5	19,5
1000 - 1218 MHz	dB ± 1	6,5	10,5	12,5	16	20
IN > RF						
not applicable	dB >	52	52	52	52	52
not applicable	dB ± 1.5	9	13	15,3	19	21,5
ISOLATION						
DATA <> TV						
5 - 204 MHz	dB >	60	60	60	60	60
204 - 400 MHz	dB >	35	40	40	45	45
400 - 862 MHz	dB >	30	30	30	30	30
862 - 1218 MHz	dB >	20	20	20	20	20
TV <> R						
not applicable	dB >	20	20	20	20	20
OUT > TV						
5 - 204 MHz	dB >	-	55/60	55/60	55/60	55/60
204 - 862 MHz	dB >	-	30	22	22	25
862 - 1218 MHz	dB >	-	20	20	20	20
OUT - DATA						
5 - 204 MHz	dB >	-	20	30	30	40
204 - 1218 MHz	dB >	-	20	20	19	19
1218 - 1794 MHz	dB >	-	18	12	15	15
RETURN LOSS minimum according to 47 MHz						
IN, OUT	dB >	14-1.5/oct	18-1.5/oct	18-1.5/oct	18-1.5/oct	18-1.5/oct
DATA (F-female)	dB >	18-1.5/oct	18-1.5/oct	18-1.5/oct	18-1.5/oct	18-1.5/oct
TV (IEC-male)	dB >	14-1.5/oct	14-1.5/oct	14-1.5/oct	14-1.5/oct	14-1.5/oct
R (IEC-female)	dB >	10	10	10	10	10
IN, OUT, DATA 1218 - 1794 MHz	dB >	From 1218 MHz linearly decreasing to 8 dB at 1794 MHz				
INTERMODULATION						
all Ports	dB <	15 dBµV in DS @ US two tone 120 dBµV after surge				
ELECTRICAL						
Impedance		75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL						
EMC class	dB >	Class A +10 dB				
STANDARDS OF REFERENCE						
Passive broadband devices for coaxial networks		EN 60728-4				
IEC- connectors		IEC 61169-2				
F - connectors		IEC 61169-24				
CE Conformity EMC-D 2014/30/EU		EN 50083-2, RoHS 2011/65/EU				

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

3-port DOCSIS Multimedia outlets

with fixed return path filter for DOCSIS 2.0/3.0/3.1 operation



TERRESTRIAL
RECEPTION

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& FIBRE
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TECHNICAL
APPENDIX



Making connectivity easy

We're making it easy to prepare for the network of tomorrow, with our brand new range of 3-port multimedia wall outlets for TV, radio and data. Our fully updated platform saves you time now and money in the future, bringing you cutting edge electrical performance alongside our tried and trusted, hassle-free installation solution.

Available in single terminated (EDM) and loop through (GDM) models.

Your benefits

- Special antenna outlet sockets for connecting to cable TV networks (CATV) or common antenna networks (MATV/SMATV) up to 1 GHz.
- Superb electrical performance
- High shielding and expanded frequency range
- Quick and easy mounting
- Approved by Vodafone - Kabel Deutschland



**EDM 1, 3-way
Multimedia Wall Outlet**

Art. No. 306270

EAN Number
5702663062702



**GDM 12, 3-way
Multimedia Wall Outlet**

Art. No. 306273

EAN Number
5702663062733



**EDM 6, 3-way
Multimedia Wall Outlet**

Art. No. 306271

EAN Number
5702663062719



**GDM 15, 3-way
Multimedia Wall Outlet**

Art. No. 306274

EAN Number
5702663062740



**GDM 10, 3-way
Multimedia Wall Outlet**

Art. No. 306272

EAN Number
5702663062726



**GDM 19, 3-way
Multimedia Wall Outlet**

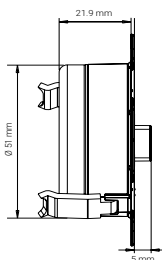
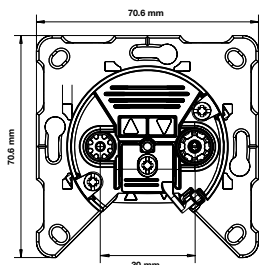
Art. No. 306275

EAN Number
5702663062757

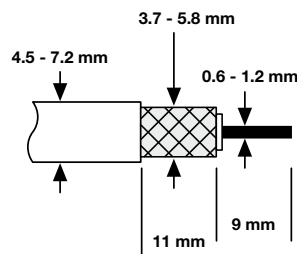
TRIAX® CATV

multimedia – filter outlets

Outlet socket frame



Recommended cable dimensions



Type:	EDM 1	EDM 6	GDM 10	GDM 12	GDM 15	GDM 19
	3-way	3-way	3-way	3-way	3-way	3-way
	Wall Outlet	Wall Outlet	Wall Outlet	Wall Outlet	Wall Outlet	Wall Outlet
Art. no.	306270	306271	306272	306273	306274	306275
CHARACTERISTICS						
Outlet Type	Terminated	Terminated	Loop through	Loop through	Loop through	Loop through
FREQUENCY						
Frequency Range DATA	5..65/ 109..1794MHz	5...1794MHz	5...1794MHz	5...1794MHz	5...1794MHz	5...1794MHz
Frequency Range IN-OUT		5...1794MHz	5...1794MHz	5...1794MHz	5...1794MHz	5...1794MHz
Frequency Range RF	87.5...108MHz	87.5...108MHz	87.5...108MHz	87.5...108MHz	87.5...108MHz	87.5...108MHz
Frequency Range TV	109...1218MHz	109...1218MHz	109...1218MHz	109...1218MHz	109...1218MHz	109...1218MHz
LOSS						
Through Loss IN-OUT 5...1218 MHz			3.6dB	2.6dB	1.5dB	1.5dB
Through Loss IN-OUT 1000...1218 MHz			3.8dB	2.8dB	1.6dB	1.6dB
Through Loss IN-OUT 1218...1794 MHz			4.8dB	3.8dB	2.6dB	2.4dB
Through Loss IN-DATA 5...65MHz	1.0dB					
Through Loss IN-DATA 109...1218MHz	4.0dB					
Through Loss IN-DATA 5...1218MHz		6.0dB	10.2dB	12.0dB	15.0dB	19.0dB
Through Loss IN-DATA 1218...1794MHz	5.0dB	7.0dB	11.2dB	13.0dB	16.0dB	19.5dB
Through Loss IN-TV 1000...1218 MHz	4.0dB	6.0dB	10.0dB	12.0dB	15.5dB	19.5dB
ISOLATION						
Isolation TV-RF	10.0dB	20.0dB	20.0dB	20.0dB	20.0dB	20.0dB
Isolation DATA/TV/R 5...65MHz	52.0dB	60.0dB	60.0dB	60.0dB	60.0dB	60.0dB
Isolation DATA/TV/R 65...200MHz	20.0dB	36.0dB	40.0dB	40.0dB	45.0dB	45.0dB
Isolation DATA/TV/R 200...862MHz	20.0dB	30.0dB	30.0dB	30.0dB	30.0dB	30.0dB
Isolation DATA/TV/R 862...1218MHz	20.0dB	20.0dB	20.0dB	20.0dB	20.0dB	20.0dB
Isolation OUT/TV/R	30.0dB	30.0dB	30.0dB	30.0dB	30.0dB	30.0dB
Isolation OUT/TV/R 5...65MHz	60.0dB	60.0dB	60.0dB	60.0dB	60.0dB	60.0dB
Isolation OUT/TV/R 65...862MHz	25.0dB	22.0dB	22.0dB	22.0dB	25.0dB	25.0dB
Isolation OUT/TV 862...1218MHz	20.0dB	21.0dB	20.0dB	20.0dB	22.0dB	22.0dB
Isolation OUT/DATA 5...200MHz	20.0dB	30.0dB	30.0dB	30.0dB	30.0dB	40.0dB
Isolation OUT/DATA 200...1218MHz	20.0dB	20.0dB	20.0dB	20.0dB	19.0dB	19.0dB
Isolation OUT/DATA 1218...1794MHz	18.0dB	12.0dB	15.0dB	15.0dB	15.0dB	15.0dB
RETURN LOSS						
Return Loss IN/OUT	14.0 -1.5/octdB	16.0 -1.5/octdB	18.0 -1.5/octdB	18.0 -1.5/octdB	18.0 -1.5/octdB	18.0 -1.5/octdB
Return Loss DATA	14.0 -1.5/octdB	18.0 -1.5/octdB	18.0 -1.5/octdB	18.0 -1.5/octdB	18.0 -1.5/octdB	18.0 -1.5/octdB
Return Loss TV	14.0 -1.5/octdB	14.0 -1.5/octdB	14.0 -1.5/octdB	14.0 -1.5/octdB	14.0 -1.5/octdB	14.0 -1.5/octdB
Return Loss RF	10.0dB	10.0dB	10.0dB	10.0dB	10.0dB	10.0dB
Return Loss IN/OUT/DATA	8.0dB	8.0dB	8.0dB	8.0dB	8.0dB	8.0dB
ELECTRICAL						
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL						
Screening Efficiency	Class A +10dB	Class A +10dB	Class A +10dB	Class A +10dB	Class A +10dB	Class A +10dB
CONNECTORS						
Connector IN / IN-OUT	Spring Clamp Termination					
Connector DATA	F-female (IEC 61 169-24)					
Connector RF	IEC-female					
Connector TV	IEC-male					
MECHANICAL						
Dimensions product (H x D x W)	70.6 x 70.6 x 21.9mm					
Main Material	Zinc die-cast					
Packing QTY	10	10	10	10	10	10
Weight (kg)	0.09kg	0.09kg	0.09kg	0.09kg	0.09kg	0.09kg

- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX

Universal MATV/SMATV antenna outlets

improved functionality with future-ready technology



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

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(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



2-port super wide-band sockets

Wideband socket box with Sat IF range. Continuous frequency ranges 5 to 2400 MHz on both outlets (universal socket box). Advantage: Upgrading or retrofitting of the wideband house network with direct satellite reception always possible.

Your benefits

- Designed for CATV (cable TV) and Sat IF distribution.
- Manifold connection alternatives for the terminal equipment.
- Continuous CATV frequency ranges with reverse channel capability.
- Advantage: Flexible in application and storage.



EDU 04 F outlet
5...2400MHz
terminated

Art. No. 306111

EAN Number
5702663061118



GEDU 15 outlet
5...2400MHz
loop through

Art. No. 306212

EAN Number
5702663062122



GEDU 10 outlet
5...2400MHz
loop through

Art. No. 306211

EAN Number
5702663062115



GEDU 20 outlet
5...2400MHz
loop through

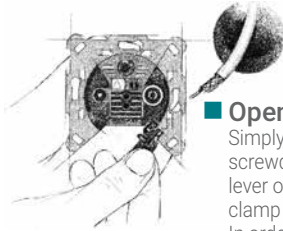
Art. No. 306213

EAN Number
5702663062139

TRIAX[®] MATV / SMATV

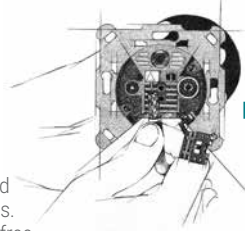
2-port super wide-band outlets

Mounting in detail



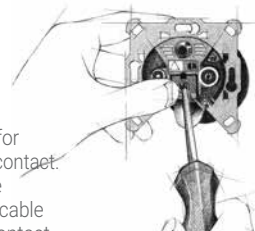
Open

Simply use a screwdriver to lever out the hinged clamp at the recess. In order to allow a free mounting position, tilt the clamp into fixing position.



Insert

The technology for inner conductor contact. Simply insert the stripped coaxial cable into the spring contact until it stops – it's held securely. In order to remove the cable, just press the button.



Close

Close the hinged clamp and screw tight. Insert the socket body, align it using the straight edges and anchor it by tightening the claw screws. PZ 1 screws for cordless screwdrivers are required.

Type:	EDU 04 F outlet 5...2400 MHz	GEDU 10 outlet 5...2400 MHz	GEDU 15 outlet 5...2400 MHz	GEDU 20 outlet 5...2400 MHz
Art. no.	306111	306211	306212	306213
CHARACTERISTICS				
Outlet Type	Terminated	Loop through	Loop through	Loop through
FREQUENCY				
Frequency Range IN-OUT		5...2150 (2400)MHz	5...2150 (2400)MHz	5...2150 (2400)MHz
Frequency Range TV	5...2150 (2400)MHz	5...2150 (2400)MHz	5...2150 (2400)MHz	5...2150 (2400)MHz
Frequency Range RF	5...2150 (2400)MHz	5...2150 (2400)MHz	5...2150 (2400)MHz	5...2150 (2400)MHz
LOSS				
Through Loss IN-FM	4.0dB	10.0dB	14.5dB	20.0dB
Through Loss IN-OUT @SAT		3.8 ±0.4dB	1.6 ±0.4dB	1.4 ±0.4dB
Through Loss IN-RF	4.0dB			
Through Loss IN-TV	4.0dB	10.0dB	14.5dB	20.0dB
ISOLATION				
Isolation OUT-FM		30.0dB	36.0dB	40.0dB
Isolation OUT-TV		30.0dB	36.0dB	40.0dB
Isolation TV-FM	20.0dB	>36.0dB	>24.0dB	>24.0dB
RETURN LOSS				
Return Loss FM	18.0...12.0dB	15.0dB	14.0dB	15.0dB
Return Loss IN	10.0dB	15.0dB	19.0dB	19.0dB
Return Loss OUT		18.0dB	20.0dB	20.0dB
Return Loss TV	18.0...12.0dB	15.0dB	14.0dB	15.0dB
ELECTRICAL				
Impedance	75Ω	75Ω	75Ω	75Ω
OPERATIONAL				
Certification	EN 50 083-1, EN 50 083-2, EN 50 083-4			
DC Passthrough TV	Max. 24VDC / 0.5A)			
Screening Efficiency	Class A (EN50083-2) Class A (EN50083-2) Class A (EN50083-2) Class A (EN50083-2)			
Operating temperature range	-25...+55°C	-25...+55°C	-25...+55°C	-25...+55°C
Temperature - shipping	-40...+70°C	-40...+70°C	-40...+70°C	-40...+70°C
Temperature - storage	-25...+55°C	-25...+55°C	-25...+55°C	-25...+55°C
CONNECTORS				
Adaptable Cable Dia. - Inner Conductor	0.58...1.15mm	0.58...1.15mm	0.58...1.15mm	0.58...1.15mm
Adaptable Cable Dia. - F-female	0.6...1.13mm	0.6...1.13mm	0.6...1.13mm	0.6...1.13mm
Adaptable Cable Dia. - Jacket	4.5...7.2mm	4.5...7.2mm	4.5...7.2mm	4.5...7.2mm
Adaptable Cable Dia. - Outer Conductor	3.7...5.8mm	3.7...5.8mm	3.7...5.8mm	3.7...5.8mm
Connector IN-OUT	Spring Clamp Termination			
Connector RF	IEC-female	IEC-female	IEC-female	IEC-female
Connector TV	IEC-male	IEC-male	IEC-male	IEC-male
MECHANICAL				
Dimensions product (H x D x W)	70.6 x 70.6 x 21.9mm	70.6 x 70.6 x 21.9mm	70.6 x 70.6 x 21.9mm	70.6 x 70.6 x 21.9mm
Main Material	Zinc die-cast	Zinc die-cast	Zinc die-cast	Zinc die-cast
Packing QTY	10	10	10	10
Weight (kg)	0.09kg	0.09kg	0.09kg	0.09kg

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

Selective MATV/SMATV antenna outlets

selective spectrum and low insertion loss



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)



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TECHNICAL
APPENDIX

2-port MATV filter sockets

The filter principle used in most satellite and MATV/CATV outlets provides the lowest distribution operating loss as well as additional selective decoupling. These advantages are achieved at the price of transition ranges between the frequency bands that cannot be used.

Your benefits

- Special antenna outlet sockets for connecting to cable TV networks (CATV) or common antenna networks (MATV/SMATV) up to 1 GHz.
- Special outlets designs for different electrical requirements (further special antenna outlets on request).
- Advantage: Optimal electrical characteristics for the respective application.



**FS 01 - 1 GHz
R/TV terminated outlet**

Art. No. 306191

EAN Number
5702663061910



**FS 12 - 1 GHz
R/TV loop through
TV-radio/data outlet**

Art. No. 306292

EAN Number
5702663062924



**FS 07 - 1 GHz
R/TV loop through outlet**

Art. No. 306291

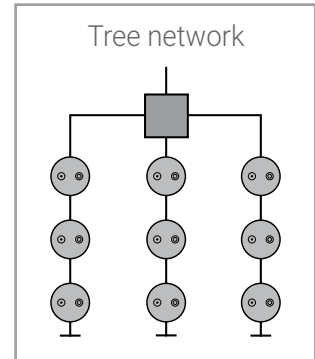
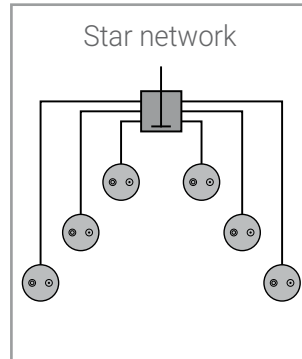
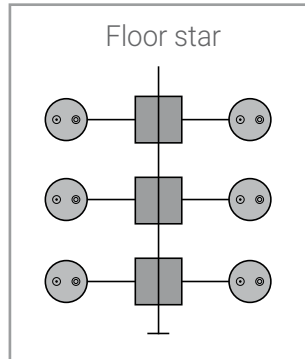
EAN Number
5702663062917



TRIAX[®] MATV / SMATV

2-port TV/radio filter outlets

Network structures



Type:	FS 01 outlet R/TV	FS 07 outlet R/TV	FS 12 outlet R/TV
Art. no.	306191	306291	306292
CHARACTERISTICS			
Outlet Type	Terminated	Loop through	Loop through
FREQUENCY			
Frequency Range IN-OUT	5...1000MHz	5...1000MHz	5...1000MHz
Frequency Range FM	87...108MHz	87...108MHz	87...108MHz
Frequency Range TV	5...68 / 118...1000MHz	5...68 / 118...1000MHz	5...68 / 118...1000MHz
LOSS			
Through Loss IN-FM	1.0dB	9.0dB	12.0dB
Through Loss IN-TV	0.7 ±1.0dB	8.0dB	11.0dB
ISOLATION			
Isolation OUT-FM		> 30.0 (@40 MHz -1.5/Oct.)dB	> 30.0 (@40 MHz -1.5/Oct.)dB
Isolation OUT-TV		> 30.0 (@40 MHz -1.5/Oct.)dB	> 30.0 (@40 MHz -1.5/Oct.)dB
Isolation TV-FM	>10.0dB	>10.0dB	>10.0dB
RETURN LOSS			
Return Loss FM	> 10dB	> 10dB	> 10dB
Return Loss IN	> 14.0 (@40 MHz -1.5/Oct.)dB	16.0...18.0dB	18.0dB
Return Loss OUT		26.0dB	24.0dB
Return Loss TV	> 14.0 (@40 MHz -1.5/Oct.)dB	> 14.0 (@40 MHz -1.5/Oct.)dB	> 14.0 (@40 MHz -1.5/Oct.)dB
ELECTRICAL			
Impedance	75Ω	75Ω	75Ω
OPERATIONAL			
Screening Efficiency	Class A (EN50083-2)	Class A (EN50083-2)	Class A (EN50083-2)
Operating temperature range	-25...+55°C	-25...+55°C	-25...+55°C
Temperature - shipping	-40...+70°C	-40...+70°C	-40...+70°C
Temperature - storage	-25...+55°C	-25...+55°C	-25...+55°C
CONNECTORS			
Adaptable Cable Dia.- Inner Conductor	0.58...1.15mm	0.58...1.15mm	0.58...1.15mm
Adaptable Cable Dia.- F-female	0.6...1.13mm	0.6...1.13mm	0.6...1.13mm
Adaptable Cable Dia.- Jacket	4.5...7.2mm	4.5...7.2mm	4.5...7.2mm
Adaptable Cable Dia.- Outer Conductor	3.7...5.8mm	3.7...5.8mm	3.7...5.8mm
Connector IN-OUT	Spring Clamp Termination	Spring Clamp Termination	Spring Clamp Termination
Connector FM	IEC-female	IEC-female	IEC-female
Connector TV	IEC-male	IEC-male	IEC-male
MECHANICAL			
Dimensions product (H x D x W)	70.6 x 70.6 x 21.9mm	70.6 x 70.6 x 21.9mm	70.6 x 70.6 x 21.9mm
Main Material	Zinc die-cast	Zinc die-cast	Zinc die-cast
Packing QTY	10	10	10
Weight (kg)	0.09kg	0.09kg	0.09kg

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
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CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

Selective MATV/SMATV antenna outlets

selective and low insertion loss



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

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TOOLS &
CABINETS

TECHNICAL
APPENDIX



TRIAX TOU standard tv/radio quality outlets

The TRIAX TOU series of outlets is made of diecast aluminium, the coax IEC connectors comply with DIN 45325 and IEC 169 standards.

The outlets can be built into a $\varnothing 60$ mm round wall box or surface mounted by means of a TOU frame.

Your benefits

- Designed for CATV (cable TV) and Sat IF distribution.
- Manifold connection alternatives for the terminal equipment.
- Continuous CATV frequency ranges with reverse channel capability.
- Advantage: Flexible in application and storage.



TOU - 1 outlet R/TV terminated

Art. No. 303621

EAN Number
5702663036215



TOU - 4 outlet R/TV loop through

Art. No. 303624

EAN Number
5702663036246

TRIAX[®] MATV / SMATV

2-port TV/radio filter outlets



- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX

Type:	TOU - 1 outlet R/TV	TOU - 4 outlet R/TV
Art. no.	303621	303624
CHARACTERISTICS		
Outlet Type	Terminated	Loop through
FREQUENCY		
Frequency Range FM	87.5...108MHz	
Frequency Range TV	5...74/120...862MHz	
LOSS		
Through Loss IN-FM	2.0dB	5.5dB
Through Loss IN-TV	1.5dB	4.5dB
Through Loss IN-OUT		4.0dB
ISOLATION		
Isolation OUT-FM		>20.0dB
Isolation OUT-TV		>15.0dB
Isolation TV-FM	>10.0dB	>10.0dB
RETURN LOSS		
Return Loss FM	Cat. D *) EN 50083-4dB	
Return Loss TV	Cat. C *) EN 50083-4dB	
ELECTRICAL		
Impedance	75Ω	75Ω
CONNECTORS		
Connector FM	IEC-female	IEC-female
Connector TV	IEC-male	IEC-male
Connector IN-OUT		Saddle & Clamp (S&C)
MECHANICAL		
Dimensions product (H x D x W)	70.6 x 70.6 x 21.9mm	
Main Material	Zinc die-cast	
Remarks	*) According to CENELEC: B: 5-40 MHz > 18 dB, 40-862 MHz min. 18 dB - 1.5/oct. C: 5-40 MHz > 14 dB, 40-862 MHz min. 14 dB - 1.5/oct. D: 5-862 MHz > 10 dB. Standards CE: EN 50083-4. NB! excl. cover and frame	
Weight (kg)	0.146kg	0.146kg

3-port SAT/TV/Radio wide-band outlets

with gapless TV frequency range



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

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CABLES &
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OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



3-port SAT/CATV combination sockets

Sat IF socket box with reverse-channel capable wide-band MATV/CATV outlets (splitter-filter combination). GDA 313 F pass-through-socket with diode-decoupled DC circuit (13/18V, 22 kHz) for single-cable solution and satellite sub-distributions* in the residential unit. Advantage: In addition to Sat IF operation, connection options to CATV cable network or terrestrial antenna systems (all-round antenna outlet socket). Note: Only one sat receiver can be operated actively at the socket box chain in case of a cascade of pass-through sockets in multi-switch operation.

Your benefits

- Designed for CATV (cable TV) and Sat IF distribution.
- Manifold connection alternatives for the terminal equipment.
- Continuous CATV frequency ranges with reverse channel capability.
- Advantage: Flexible in application and storage.



EDA 302 F SAT/CATV outlet terminated

Art. No. 306121

EAN Number
5702663061217



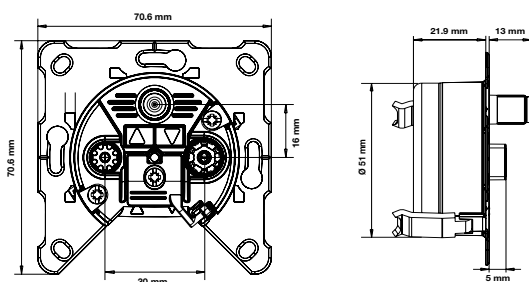
GDA 313 F SAT/CATV outlet loop through

Art. No. 306221

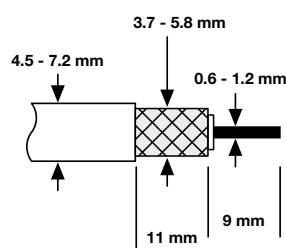
EAN Number
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Installation dimensions

Outlet socket frame



Recommended cable dimensions



3-port filter antenna outlets

for multiswitch systems or single-cable solutions

- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX

Type:	EDA 302 F SAT/CATV outlet	GDA 313 F SAT/CATV outlet
Art. no.	306121	306221
CHARACTERISTICS		
Outlet Type	Terminated	Loop through
FREQUENCY		
Frequency Range IN-OUT		5...2150 (2400)MHz
Frequency Range FM	5...118MHz	5...118MHz
Frequency Range TV	5...862MHz	5...862MHz
Frequency Range SAT	950...2150 (2400)MHz	950...2150 (2400)MHz
SHIELDING		
Shielding @ 1000...2400 MHz	≥ 55.0dB	≥ 55.0dB
Shielding @ 300-470 MHz	≥ 80.0dB	≥ 80.0dB
Shielding @ 30-300 MHz	≥ 85.0dB	≥ 85.0dB
Shielding @ 470-1000 MHz	≥ 75.0dB	≥ 75.0dB
LOSS		
Through Loss IN-FM	6.5dB	17.0 ±1.0dB
Through Loss IN-OUT @SAT		1.8 ±1.0dB
Through Loss IN-SAT	2.0dB	12.0 ±1.5dB
Through Loss IN-TV	2.5dB	12.5 ±1dB
ISOLATION		
Isolation FM-SAT	30.0dB	35.0dB
Isolation OUT-FM		35.0dB
Isolation OUT-TV		28.0dB
Isolation TV-FM	20.0dB	25.0dB
Isolation TV-SAT	>20.0dB	20.0dB
RETURN LOSS		
Return Loss FM	10.0dB	10.0dB
Return Loss IN	10.0dB	16.0 (@40MHz -1.5dB/Oct.)dB
Return Loss OUT		15.0dB
Return Loss SAT	9.0dB	10.0dB
Return Loss TV	12.0dB	12.0dB
ELECTRICAL		
Impedance	75Ω	75Ω
OPERATIONAL		
DC Passthrough FM	NO	NO - DC blocked at inner conductor
DC Passthrough IN-OUT	NO	Yes (max. 25VDC / 0.5A)
DC Passthrough SAT	Yes (max. 24VDC / 0.5A)	Yes (max. 25VDC / 0.5A directed)
DC Passthrough TV	NO	NO - DC blocked at inner conductor
Screening Efficiency	Class A	Class A
Operating temperature range	-25...+55°C	-25...+55°C
Temperature - storage	-25...+55°C	-25...+55°C
CONNECTORS		
Adaptable Cable Dia. - Inner Conductor	0.58...1.15mm	0.58...1.15mm
Adaptable Cable Dia. - F-female	0.6...1.13mm	0.6...1.13mm
Adaptable Cable Dia.- Jacket	4.5...7.2mm	4.5...7.2mm
Adaptable Cable Dia. - Outer Conductor	3.7...5.8mm	3.7...5.8mm
Connector type data	F-female (IEC 60 169-24)	F-female (IEC 60 169-24)
Connector IN-OUT	Spring Clamp Termination	Spring Clamp Termination
Connector SAT	F-female	F-female
Connector TV	IEC-male	IEC-male
Connector FM	IEC-female	IEC-female
MECHANICAL		
Dimensions product (H x D x W)	70.6 x 70.6 x 21.9mm	70.6 x 70.6 x 21.9mm
Main Material	Zinc die-cast	Zinc die-cast
Packing QTY	10	10
Weight (kg)	0.09kg	0.09kg

3-port SAT/TV/Radio filter outlets

for multiswitch systems



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



3-outlet SAT filter sockets

For sat IF systems (SMATV) with connection options for terrestrial terminal equipment such as FM radio and DVB-T television. Only one sat receiver can be operated actively at the socket.

Your benefits

- Special SAT antenna outlets for sat IF distribution networks (multi-switch systems) as well as single satellite systems.

- FS 302 F with comfortable push in cable clamp
- F-connector for SAT IF range. Additional connection of terrestrial receiving devices such as DVB-T receiver possible via IEC connectors.
- Selective splitting of the frequency bands via filters with extremely low distribution operating loss.
- Advantages:
Direct F-connection for SAT receiver. Cost-efficient.



FS 302 F - SAT/TV/R outlet terminated

Art. No. 306151

EAN Number
5702663061514



GAD 269 LTE - SAT/TV/R

Art. No. 306269

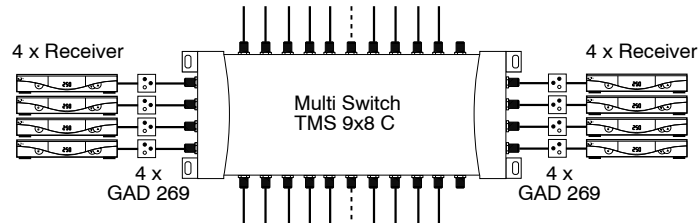
EAN Number
5702663062696



3- port filter antenna outlets

for multiswitch systems

Network structures



Type:	FS 302 F SAT/TV/R outlet terminated	GAD 269 LTE - SAT/TV/R outlet terminated
Art. no.	306151	306269
CHARACTERISTICS		
Outlet Type	Terminated	Terminated
FREQUENCY		
Frequency Range FM	87...108MHz	87.5 - 108MHz
Frequency Range TV	5...75/118...862MHz	5 -74 / 125 - 694MHz
Frequency Range SAT	950...2150 (2400)MHz	950 -2150MHz
LOSS		
Through Loss IN-FM	1.5dB	2dB
Through Loss IN-SAT	2.0 (3.0 @2400Mhz)dB	2,5dB
Through Loss IN-TV	1.5dB	2dB
ISOLATION		
Isolation TV-RF	20.0dB	
RETURN LOSS		
Return Loss FM	20dB	11dB
Return Loss IN		14 @47MHz -1.5dB/Oct.dB
Return Loss SAT	20dB	10...6dB
Return Loss TV	30dB	14 @47MHz -1.5dB/Oct. (10 @68-75MHz)dB
ELECTRICAL		
Impedance	75Ω	75Ω
OPERATIONAL		
DC Passthrough SAT	Yes (max. 24VDC / 0.5A)	Yes (max. 30VDC / 1A)
Screening Efficiency	Class A (EN50083-2)	Class A (EN50083-2)
Operating temperature range	-25...+55°C	-25...+55°C
Temperature - storage	-25...+55°C	-40...+70°C
CONNECTORS		
Adaptable Cable Dia. - Inner Conductor	0.58...1.15mm	
Adaptable Cable Dia. - F-female	0.6...1.13mm	
Adaptable Cable Dia.- Jacket	4.5...7.2mm	
Adaptable Cable Dia. - Outer Conductor	3.7...5.8mm	
Connector SAT	F-female	F-female
Connector FM	IEC-female	IEC-female
Connector TV	IEC-male	IEC-male
MECHANICAL		
Dimensions product (H x D x W)	70.6 x 70.6 x 21.9mm	70 x 70 x 21.6mm
Main Material	Zinc die-cast	
Packing QTY	10pcs.	1pcs.
Remarks		Incl coverplate and frame
Weight (kg)	0.09kg	0.156kg

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

3-port SAT/TV/Radio filter outlets

for multiswitch systems or single-cable solutions



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



TRIAx TOU satellite, tv/radio outlets

The TRIAX TOU series of outlets is made of diecast aluminium, and the coax IEC connectors comply with DIN 45325 and IEC 169 standards.

The outlets can be built into a Ø60 mm round wall box or surface mounted by means of a TOU frame.

Your benefits

- Special SAT antenna outlets for SAT IF distribution networks (multi-switch systems or single-cable solution) as well as single satellite systems.

- F connector for SAT IF range. Additional connection of terrestrial receiving devices such as DVB-T receiver possible via IEC connectors.
- Selective splitting of the frequency bands via filters with extremely low distribution operating loss.
- Advantages:
Direct F-connection for sat receiver.
Cost efficient.



TOU - 01S outlet SAT/TV/R terminated

Art. No. 303693

EAN Number
5702663036932



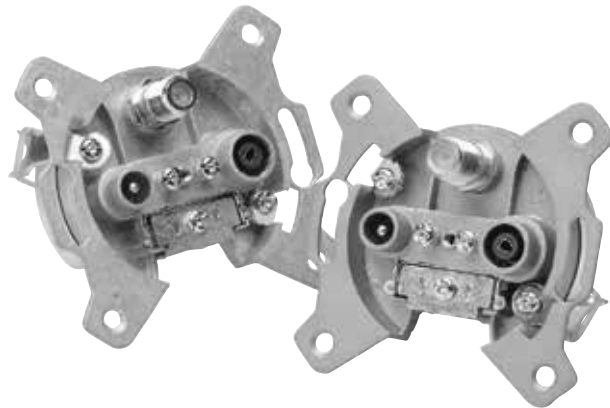
TOU - 01S outlet SAT/TV/R terminated w/ white cover

Art. No. 303661

EAN Number
5702663036611

3-port filter outlets

for multiswitch systems



Type:	TOU - 01S outlet SAT/TV/R	TOU - 01S outlet SAT/TV/R w/ white cover
Art. No.	303693	303661
CHARACTERISTICS		
Outlet Type	Terminated	Terminated
FREQUENCY		
Frequency Range FM	87.5...108MHz	87.5...108MHz
Frequency Range TV	5...74/120...862MHz	5...74/120...862MHz
Frequency Range SAT	950...2250MHz	950...2250MHz
SHIELDING		
Shielding factor UHF	>75dB	>75dB
Shielding factor VHF	>85dB	>85dB
LOSS		
Through Loss IN-FM	1.5dB	1.5dB
Through Loss IN-SAT	2.0dB	2.0dB
Through Loss IN-TV	2.0dB	2.0dB
ISOLATION		
Isolation FM-SAT		
Isolation OUT-TV	>10.0dB	>10.0dB
Isolation TV-FM	>15.0dB	>15.0dB
Isolation TV-SAT		
RETURN LOSS		
Return Loss FM	Cat. D *)dB	Cat. D *)dB
Return Loss TV	Cat. C *)dB	Cat. C *)dB
ELECTRICAL		
Impedance	75Ω	75Ω
OPERATIONAL		
DC Passthrough SAT	Yes (20VDC/500mA)	Yes (20VDC/500mA)
CONNECTORS		
Connector FM	IEC-female	IEC-female
Connector IN-OUT	Saddle & Clamp	Saddle & Clamp
Connector SAT	F-female	F-female
Connector TV	IEC-male	IEC-male
MECHANICAL		
Dimensions product (H x D x W)	70.6 x 70.6 x 21.9mm	70.6 x 70.6 x 21.9mm
Main Material	Zinc die-cast	Zinc die-cast
Packing QTY	1	1
Remarks	According to CENELEC: C: 5-40 MHz > 14 dB, 40-862 MHz min. 14 dB - 1.5/oct. D: 5-862 MHz > 10 dB. incl. cover and frame (white)	
Weight (kg)	0.156kg	0.156kg

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

2-port SAT/TV filter outlets

for multiswitch systems or single-cable solution



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



2-port SAT filter outlets

Special SAT antenna outlets for SAT IF distribution networks (multi-switch systems or single-cable solution), as well as single satellite systems.

Your benefits

- F-connector for SAT IF range. Additional connection of terrestrial receiving devices such as DVB-T receiver possible via IEC connectors.
- Selective splitting of the frequency bands via filters with extremely low distribution operating loss.
- Advantages:
Direct F-connection for SAT receiver. Cost-efficient.



EDS 01 F
outlet terminated

Art. No. 306131

EAN Number
5702663061316



GDS 08 F
outlet loop through

Art. No. 306231

EAN Number
5702663062313



GDS 11 F
outlet loop through

Art. No. 306232

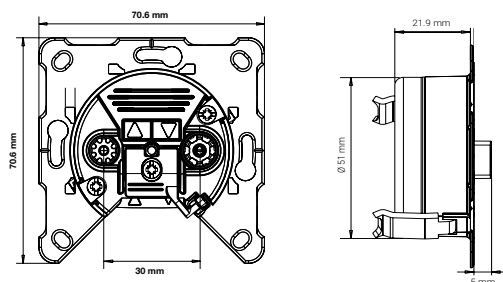
EAN Number
5702663062320

SAT/TV antenna outlets

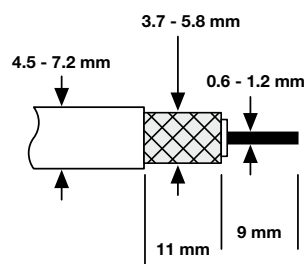
for multiswitch systems or single-cable solutions

Installation dimensions

Outlet socket frame



Recommended cable dimensions



Type:	EDS 01 F outlet	GDS 08 F outlet	GDS 11 F outlet
Art. no.	306131	306231	306232
CHARACTERISTICS			
Outlet Type	Terminated	Loop through	Loop through
FREQUENCY			
Frequency Range TV	5...862MHz	5...862MHz	5...862MHz
Frequency Range SAT	950...2400MHz	950...2150 (2400)MHz	950...2150 (2400)MHz
LOSS			
Through Loss IN-SAT	1.2dB	8.0dB	11.5dB
Through Loss IN-TV	1.2dB	8.0dB	11.0dB
ISOLATION			
Isolation OUT-TV		30.0dB	30.0dB
Isolation TV-SAT	20.0dB	20.0dB	20.0dB
RETURN LOSS			
Return Loss IN	11.0dB	13.0dB	13.0dB
Return Loss OUT		14.0dB	14.0dB
Return Loss SAT	10.0dB	12.0dB	10.0dB
Return Loss TV	12.0dB	12.0dB	12.0dB
ELECTRICAL			
Impedance	75Ω	75Ω	75Ω
OPERATIONAL			
Certification	EN 50 083-1, EN 50 083-2, EN 50 083-4		
DC Passthrough IN-OUT		Yes (max. 24VDC / 0.5A)	Yes (max. 24VDC / 0.5A)
DC Passthrough SAT	Yes (max. 24VDC / 0.5A)	Yes (max. 24VDC / 0.5A)	Yes (max. 24VDC / 0.5A)
Screening Efficiency	Class A	Class A	Class A
Operating temperature range	-25...+55°C	-25...+55°C	-25...+55°C
Temperature - storage	-25...+55°C	-25...+55°C	-25...+55°C
CONNECTORS			
Adaptable Cable Dia. - Inner Conductor	0.58...1.15mm	0.58...1.15mm	0.58...1.15mm
Adaptable Cable Dia. - Jacket	4.5...7.2mm	4.5...7.2mm	4.5...7.2mm
Adaptable Cable Dia. - Outer Conductor	3.7...5.8mm	3.7...5.8mm	3.7...5.8mm
Connector IN-OUT	Spring Clamp Termination		
Connector SAT	F-female		
Connector TV	IEC-male		
MECHANICAL			
Dimensions product (H x D x W)	70.6 x 70.6 x 21.9mm	70.6 x 70.6 x 21.9mm	70.6 x 70.6 x 21.9mm
Main Material	Zinc die-cast	Zinc die-cast	Zinc die-cast
Weight (kg)	0.09kg	0.09kg	0.09kg

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

3-port Twin & 4-port SAT outlets

for special SAT applications



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



3-port TWIN SAT outlets

Two independent inputs and F outlets for TWIN-sat receiver operation with connection option for DVB-T receiver or, via adapter coupling, for FM radio

Your benefits

- Special sat antenna outlets for sat IF distribution networks (multiswitch systems) as well as single satellite systems
- F connector for sat IF range. Additional connection of terrestrial receiving devices such as DVB-T receiver possible via IEC connectors
- comfortable push in clamp connector for cable connection
- Selective splitting of the frequency bands via filters with extremely low distribution operating loss
- Direct F-connection for SAT receiver



EDS 322 F - 2 input outlet terminated

Art. No. 306141

EAN Number
5702663061415



4-port TWIN SAT outlets

Single terminated antenna outlets for use in SAT-IF distribution networks with SAT multiswitches. Each has TV and Radio ports, with either 2x SAT or 1 SAT + 1 Data port. If required, the plastic covers can be removed for flush mounting.



GAD 404 S SAT/TV/Radio/DATA outlet terminated

Art. No. 389047

EAN Number
5702663890473



GAD 274 - 2 input TV/Radio/2 x SAT outlet terminated

Art. No. 023274

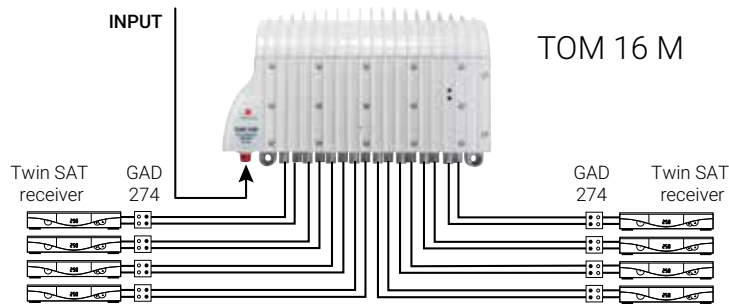
EAN Number
5702660232740



3- and 4-port SAT outlets

for multiswitch or cable solutions

Example of network structure



Type:	EDS 322 F TWIN SAT	GAD 404 S TV/FM/SAT/DATA	GAD 274 TV/FM/2 x SAT
Art. no.	306141	389047	023274
CHARACTERISTICS			
Outlet Type	Terminated	Terminated	Terminated
FREQUENCY			
Frequency Range FM		87.5...108MHz	87.5...125MHz
Frequency Range TV	5...862MHz	109...862MHz	47...68/174...862MHz
Frequency Range SAT	950...2400MHz	950...2400MHz	950...2150MHz
Frequency Range SAT 2	5...2400MHz		950...2150MHz
Frequency Range DATA		5...862MHz	
LOSS			
Tap Loss DATA		4.0dB	
Tap Loss DAB		4.0dB	2.0dB
Tap Loss FM/RF		8.0dB	2.0dB
Tap Loss SAT	1.2dB	1.5dB	2.0dB
Tap Loss TV	1.2dB	4.0dB	1.5dB
ISOLATION			
Isolation TV-RF		24.0dB	
Isolation TV-SAT	>20.0dB		
Isolation DATA-TV		> 50 (@5...65MHz)dB > 20 (@85...862MHz)dB	
RETURN LOSS			
Return Loss IN	11.0dB	18 (@40MHz -1.5dB/oct)dB	
Return Loss SAT	10.0dB	10dB	
Return Loss TV	12.0dB	18 (@40MHz -1.5dB/oct)dB	
ELECTRICAL			
Impedance	75Ω	75Ω	75Ω
OPERATIONAL			
DC Passthrough SAT	Yes (max. 24VDC / 0.5A)		Yes (max. 24VDC / 0.5A)
Screening Efficiency	Class A (EN50083-2)	Class A (EN50083-2)	Class A (EN50083-2)
Operating temperature range	-25...+55°C	-25...+55°C	-25...+55°C
Temperature - shipping	-40...+70°C	-40...+70°C	-40...+70°C
Temperature - storage	-25...+55°C	-25...+55°C	-25...+55°C
CONNECTORS			
Adaptable Cable Dia.- Inner Conductor	0.58...1.15mm		
Adaptable Cable Dia.- Jacket	0.6...1.13mm		
Adaptable Cable Dia.- Outer Conductor	4.5...7.2mm		
Adaptable Cable Dia.- Outer Conductor	3.7...5.8mm		
Connector DATA		F-female	
Connector SAT	F-female		2 x F-female
Connector FM	IEC-female	IEC-female	IEC-female
Connector TV	IEC-male	IEC-male	IEC-male
MECHANICAL			
Dimensions product (H x D x W)	70.6 x 70.6 x 21.9mm	70.6 x 70.6 x 21.9mm	70.6 x 70.6 x 21.9mm
Main Material	Zinc die-cast	Zinc die-cast	Zinc die-cast
Packing QTY	10pcs.	1pcs.	1pcs.
Weight (kg)	0.09kg	0.156 kg	0.156 kg
Remarks		Incl. cover and frame	Incl. cover and frame

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® FUGA TV/Radio outlets

high quality outlets ideal for CATV networks



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



1 & 2-port CATV filter outlets

TRIAX's FUGA antenna sockets have improved screening and are quick and easy to mount. The diecast design, where backplate and templates are single-moulded, sets new standards for screen shrinkage and mechanical stability.

High shielding

TRIAX's FUGA antenna sockets fully meet the demands of increased screen shade (Class A requirements). Also, the cable connection has been re-designed with effective HF shielding of the cable inner conductor, and the reflection attenuation in the return path has improved significantly.

Solid mechanics

In the new sockets, the connectors are precise and cannot be twisted loose or out of shape, as the backplate and terminals are single-moulded. At the same time, the fastening is stabilised and the pull relief is improved, so that uncovered cable ducts are exposed.

Faster assembly

The TRIAX FUGA antenna sockets are simple and fast to mount, as the terminal lock can be parked in an open state while the cable is mounted. A new and stronger silicone tape effectively holds the claw pieces in place.

Your benefits

- High HF density, Ideal in CATV network
- Easy and quick assembly
- Solid mechanics quality
- Meets the technical requirements of the future for multimedia



TD 212E wh. outlet, 50x77 - FM/TV - Loopthrough

Art. No. 302582

EAN Number
5702663025820



TD 263E wh. outlet, 50x77 - FM/TV - Loopthrough

Art. No. 302581

EAN Number
5702663025813



TD 260E wh. outlet, 50x77 - FM/TV - terminated

Art. No. 302580

EAN Number
5702663025806



TD 241E 2-way MM, 50x77 white outlet - terminated

Art. No. 302587

EAN Number
5702663025875

TRIAX® FUGA TV/Radio outlets

high quality outlets ideal for CATV networks

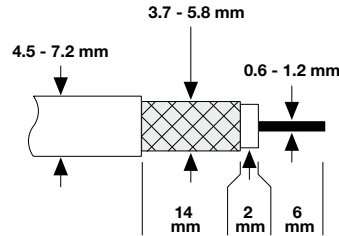


TD 101E MM, 50x77
white outlet - terminated

Art. No. 302586

EAN Number
5702663025868

Recommended cable dimensions



Type:	TD 212E wh. outlet, 50x77 - FM/TV - Loophrough	TD 260E wh. outlet, 50x77 - FM/TV - terminated	TD 263E wh. outlet, 50x77 - FM/TV - Loophrough	TD 241E 2-way MM white outlet	TD 101E white outlet, 50x77
Art. no.	302582	302580	302581	302587	302586
CHARACTERISTICS					
Outlet Type	Loop through	Terminated	Loop through	Terminated	Terminated
Return Path				5...240MHz	5...2400MHz
FREQUENCY					
Frequency range				5...1794MHz	5...2400MHz
Frequency Range IN-OUT	5...862MHz	5...1200MHz	5...1200MHz		
Frequency Range FM	87.5...108MHz	87.5...108MHz	87.5...108MHz		
Frequency Range TV	47...68/132...862 MHz	5...68/132...1200 MHz	5...68/132...1200 MHz	258...1218 MHz	
Frequency Range DATA				5...204/258...1794 MHz	
LOSS					
Through Loss IN-DATA				(0,6@5...204MHz) (4,0@258...1218MHz) (4,0@1218...1794MHz)	
Through Loss IN-FM	0,8dB		4,5dB		
Through Loss IN-OUT	0,8dB		4,5dB		
Through Loss IN-TV	0,8dB		4,5 (5,0@862...1200MHz) dB	(73@5...30MHz) (60@30...204MHz) (4@258...1218MHz)	<0,6 (@5...1300MHz) <1,0 (@1300...2400) dB
ISOLATION					
Isolation OUT-FM	>31,0 (@40 MHz)dB		>20 (@40MHz)dB		
Isolation OUT-TV	>31,0 (@40 MHz)dB		>20 (@40MHz)dB		
Isolation TV-FM	>12,0dB	>12,0dB	>12,0dB		
RETURN LOSS					
Return Loss DATA				(18@5...204MHz) - (16@258...1200MHz) - (14@1200...1794MHz)	
Return Loss FM	>10,0dB	>10,0dB	>10,0dB		
Return Loss IN	>18,0(@5...40MHz) dB	>18,0 (@5...40MHz)dB	>18,0(@5...40MHz) dB	(18@5...204MHz) (16@258...1218MHz) (14@1218...1794MHz)	>18,0 (@47MHz -1,5dB/ octave >10dB)dB
Return Loss OUT	>18,0(@5...40MHz) dB		>18,0(@5...40MHz) dB		
Return Loss TV	>14,0(@5...40MHz) dB	>18,0(@5...40MHz) dB	>18,0 (@5...40MHz) dB	(18@258...300MHz) (20@300...1200MHz)	>18,0 (@47MHz -1,5dB/ octave >10dB)dB
ELECTRICAL					
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω
Linearity	± 1dB	± 1dB	± 1dB		± 0,3dB
OPERATIONAL					
DC Passthrough TV		Yes (max. 100mA)	Yes (max. 100mA)		Yes (max. 2000mA)
Screening Efficiency			EN50083-2 (Class A+10dB)		
Operating temp. range	-40 ... +70°C	-40 ... +70°C	-40 ... +70°C	-40 ... +70°C	-40 ... +70°C
CONNECTORS					
Connector FM	IEC-female	IEC-female	IEC-female		
Connector TV	IEC-male	IEC-male	IEC-male	IEC-male	IEC-male
Connector DATA					F-female
MECHANICAL					
Dim. product (H x D x W)	29 x 50 x 77mm	29 x 50 x 77mm	29 x 50 x 77mm	37 x 50 x 77mm	29 x 50 x 77mm
Design	FUGA	FUGA	FUGA	FUGA	FUGA
Colour	White	White	White	White	White
Packing QTY	1	1	1	1	1
Weight (kg)	0,101kg	0,115kg	0,115kg	0,097kg	0,115kg

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® FUGA Multimedia outlets

for satellite, CATV & terrestrial reception



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
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CABLES &
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OUTLETS
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CABINETS

TECHNICAL
APPENDIX



3-port SAT & TV/Radio filter sockets

FUGA antenna wall outlets fit to the socket and switch programs in FUGA form factor of leading electric vendors in Denmark.

The design, where backplate and terminals are die cast in one piece sets new standards in shielding and mechanical stability.

Your benefits

- High HF-tightness
- Simple and quick mounting
- Solid mechanical quality
- Meet today's technical multimedia requirements



**TD 253E white outlet, 50x77
SAT/TV/FM
Terminated+Return**

Art. No. 302584

EAN Number
5702663025844



**TD 272E white outlet, 50x77
TV/FM/DATA Multimedia
Terminated**

Art. No. 302583

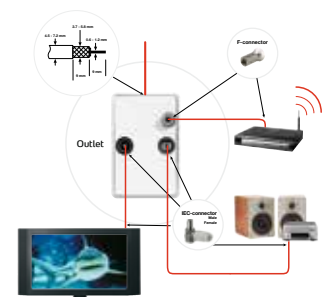
EAN Number
5702663025837



**TD 254E white outlet, 50x77
SAT/TV/FM/DAB
Terminated**

Art. No. 302585

EAN Number
5702663025851



TRIAX FUGA special outlets



**FV 01 outlet F-conn 50x50
One port**

Art. No. 303481

EAN Number
5702663034815



**FV 02 outlet F-conn 50x77
One port**

Art. No. 303482

EAN Number
5702663034822

TRIAX® FUGA Special outlets

with F-connectors

Type:	TD 253E outlet 50x77 FM/TV/ SAT/RETURN	TD 254E outlet 50x77 FM/TV/SAT/DAB	TD 272E outlet, 50x77 FM/TV/DATA	FV 01 outlet F-conn 50x50 One port	FV 02 outlet F-conn 50x77 One port
Art. no.	302584	302585	302583	303481	303482
CHARACTERISTICS					
Outlet Type	Terminated	Terminated	Terminated	F female / F female	F female / F female
FREQUENCY					
Frequency Range FM	87.5...108MHz	87.5...108MHz	87,0...108MHz		
Frequency Range DAB		47...862MHz			
Frequency Range TV	47..68/132..862MHz	47..68/132..862MHz	87...1300MHz		
Frequency Range SAT	950...2150MHz	950...2150MHz			
Frequency Range DATA			132...1300@down (5..65@upstream) MHz		
Frequency Range RETURN	0...2150MHz				
LOSS					
Tap loss FM	1.0dB	5,5dB	5,5dB		
Tap loss DAB		4.5dB			
Tap loss TV	1.0dB	4.5dB	4.5 (5.5 @862..1300) dB		
Tap loss SAT	2,0dB	2,0dB			
Tap loss DATA			4.5 ±1dB @down- (1.0 ±1dB @up) dB		
Through Loss IN-TV				0.2...0.5dB	0.2...0.5dB
Through loss return	1.0dB				
ISOLATION					
Isolation TV-FM	>12.0dB	>12.0dB	>20.0 (>55.0dB @5...65MHz)dB		
Isolation TV-DAB		>15.0dB			
Isolation FM-DATA			>30.0 @down- (>55.0 @return)dB		
Isolation TV-SAT	>18.0dB	>18.0dB			
Isolation TV-DATA			>20.0 @down- (>55.0 @return)dB		
RETURN LOSS					
Return Loss FM	>10.0dB	>10.0dB	>10.0dB		
Return Loss DAB		14.0*) dB			
Return Loss TV	14.0*) dB	14.0*) dB	>18.0*)dB		
Return Loss DATA			17.0*)dB		
Return Loss IN	17.0*)dB	17.0*)dB	17.0*)dB	18.0*)dB	18.0*)dB
Return Loss OUT				18.0*)dB	18.0*)dB
Return Loss SAT		14.0*)			
Return Loss TV	14.0*)dB	14.0*)dB	>18.0*)dB		
ELECTRICAL					
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω
Linearity	± 1dB	± 1dB	± 1dB		
OPERATIONAL					
DC Passthrough DATA			Max. 100mA		
DC Passthrough SAT	Max. 350mA	Max. 350mA			
DC Passthrough TV		Max. 100mA			
DC Passthrough RETURN	Max. 100mA				
Screening Efficiency	Class A +10dB (EN50083-2)			Class B (EN50083-2)	
Operating temperature range	-40 ... +70°C	-40 ... +70°C	-40 ... +70°C	-40 ... +70°C	-40 ... +70°C
CONNECTORS					
Adap. Cable Dia. - In. Conduc.	0.4...1,13mm	0.4...1,13mm	0.4...1,13mm	mm	mm
Adap. Cable Dia.- Jacket	2.7...8.0mm	2.7...8.0mm	2.7...8.0mm	mm	mm
Connector DAB		F-female			
Connector DATA			F-female		
Connector FM	IEC-female	IEC-female	IEC-female		
Connector IN-OUT				F-female	F-female
Connector Return	F-female				
Connector SAT	F-female	F-female			
Connector TV	IEC-male	IEC-male	IEC-male		
MECHANICAL					
Colour	white	white	white	white	white
Design	FUGA	FUGA	FUGA	FUGA	FUGA
Dimensions product (HxDxW)	29 x 50 x 77mm	29 x 50 x 77mm	26 x 50 x 77mm	50 x 50 x 26mm	77 x 50 x 26mm
Packing QTY	1	1	1	1	1
Weight net	0.122kg	0.122kg	0.120kg	0,051kg	0.062kg
Remarks		DC passthrough TV only usable if no DC on SAT			

*) (@40MHz -1.5dB/octave >10dB)

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
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TRIAX® OPUS outlet series

for satellite, CATV & terrestrial reception



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
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TOOLS &
CABINETS

TECHNICAL
APPENDIX



TRIAX OPUS high-quality outlets

TRIAX's range of OPUS TV/radio outlets have improved shielding factor and are much faster to mount.

The design, where backplate and terminals are die cast in one piece sets new standards to shielding and mechanical stability.

Your benefits

- High HF-tightness
- Simple and quick mounting
- Solid mechanical quality
- Meet today's technical multimedia requirements



TD 301 OPUS outlet
TV/Radio terminated

Art. No. 302131

EAN Number
5702663021310



TD 352 OPUS outlet
SAT/TV/Radio terminated

Art. No. 302152

EAN Number
5702663021525



TD 304 OPUS outlet
TV/Radio loop through

Art. No. 302134

EAN Number
5702663021341



TD 372 OPUS outlet
TV/Radio/DATA terminated

Art. No. 302172

EAN Number
5702663021723



TD 312 OPUS outlet
TV/Radio loop through

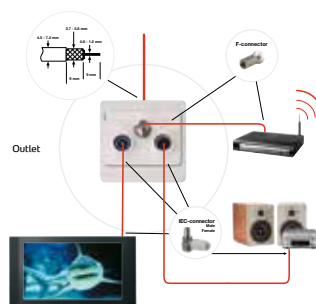
Art. No. 302132

EAN Number
5702663021327

TRIAX® OPUS outlet series

TV & radio, satellite, multimedia outlets

Example
TD 372 outlet



Type:	TD 301 outlet TV/R terminated OPUS	TD 304 outlet TV/R loop through OPUS	TD 312 outlet TV/R loop through OPUS	TD 352 outlet SAT/TV/R terminated OPUS	TD 372 outlet TV/R/DATA terminated OPUS
Art. no.	302131	302134	302132	302152	302172
CHARACTERISTICS					
Outlet Type	Terminated	Loop through	Loop through	Terminated	Terminated
FREQUENCY					
Frequency Range IN-OUT		47...862MHz	47...862MHz		
Frequency Range FM	87.5...108MHz	87.5...108MHz	87.5...108MHz	87.5...108MHz	87.5...108MHz
Frequency Range TV	5.68/139..862 MHz	47..68/139..862 MHz	47..68/139..862 MHz	47..68/139..862 MHz	139...862 MHz
Frequency Range SAT				950...2150MHz	
Frequency Range DATA					5.65/139..862MHz
SHIELDING					
Shielding @ 5-300 MHz	>75dB	>75dB	>75dB	>75dB	>75dB
Shielding @ 300-470 MHz	>75dB	>75dB	>75dB	>75dB	>75dB
Shielding @ 470-950 MHz	>65dB	>65dB	>65dB	>65dB	>65dB
Shielding @ 950-1200 MHz				>50dB	
Shielding @ 1200-2150 MHz				>50dB	
LOSS					
Through Loss IN-DATA					1.0 @5...65MHz/4.5 @139...862MHzdB
Through Loss IN-FM	0,5dB	4.5dB	12.0dB	1.0dB	5.5dB
Through Loss IN-TV	0,5dB	4.5dB	12.0dB	1.0dB	4.5dB
ISOLATION					
Isolation OUT-TV		> 20.0dB	> 30.0dB		
Isolation TV-FM	>12.0dB	>12.0dB	>12.0dB	>12.0dB	>12.0dB
Isolation TV-SAT	>12.0dB				
RETURN LOSS					
Return Loss DATA					> 18.0 dB
Return Loss FM	>10dB	>10dB	>10dB	>10dB	>10dB
Return Loss IN	> 18.0 dB	> 18.0 dB	> 18.0 dB	>10dB	> 18.0 dB
Return Loss OUT		> 18.0 dB	> 18.0 dB	>10dB	
Return Loss TV	>14.0/>10dB)dB	>14.0/>10dB)dB	>14.0/>10dB)dB	>10dB	>14.0/>10dB)dB
ELECTRICAL					
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω
Linearity	± 1dB	± 1dB	± 1dB	± 1dB	± 1dB
OPERATIONAL					
DC Passthrough SAT				Yes (max. 250mA)	
DC Passthrough TV	Yes (max. 250mA)	Yes (max. 250mA)	Yes (max. 100mA)		
CONNECTORS					
Connector DATA					F-female
Connector FM	IEC-female	IEC-female	IEC-female	IEC-female	IEC-female
Connector SAT				F-female	
Connector TV	IEC-male	IEC-male	IEC-male	IEC-male	IEC-male
MECHANICAL					
Colour	white	white	white	white	white
Design	OPUS	OPUS	OPUS	OPUS	OPUS
Dimensions product (H x D x W)	66 x 66 x 38mm	66 x 66 x 38mm	66 x 66 x 38mm	50 x 77 x 26mm	66 x 66 x 38mm
Weight net	0,95kg	0,95kg	0,95kg	0,100kg	0,95kg

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
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OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
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TECHNICAL
APPENDIX

Accessories

for TRIAX outlets



Cover plates, on wall mounting frames for outlets in DIN-EU form factor



AD 23 Cover, Oyster White

Art. No. 302061

EAN Number
5702663020610

MECHANICAL

Packing QTY 10 pcs

Dimension 76 x 76 mm



AR 20 Frame, Oyster White

Art. No. 302063

EAN Number
5702663020634

MECHANICAL

Packing QTY 10 pcs

Dimension 76 x 76 mm



AD 23 Cover, Pure White

Art. No. 302060

EAN Number
5702663020603

MECHANICAL

Packing QTY 10 pcs

Dimension 76 x 76 mm



AR 20 Frame, Pure White

Art. No. 302062

EAN Number
5702663020627

MECHANICAL

Packing QTY 10 pcs

Dimension 76 x 76 mm



TOU coverplate 2 holes - white

Art. No. 303680

EAN Number
5702663036802

MECHANICAL

Packing QTY 10 pcs

Dimension 76 x 76 mm



TOU coverplate SAT - white

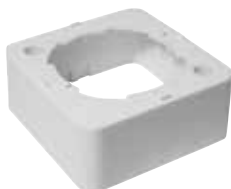
Art. No. 303695

EAN Number
5702663036956

MECHANICAL

Packing QTY 10 pcs

Dimension 76 x 76 mm



Surface mount - TOU outlets

Art. No. 303698

EAN Number
5702663036987

MECHANICAL

Packing QTY 10 pcs

Dimension 76 x 76 mm



R 77 DCB Termination resistor, w/DC blocker (75 W)

Art. No. 302066

EAN Number
5702663020665

MECHANICAL

Packing QTY 5 pcs

Accessories

for TRIAX outlets

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

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CONNECTORS

OUTLETS
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TOOLS &
CABINETS

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APPENDIX

Frames and surface mount for FUGA TD outlets



Frame 50 for TD - white

Art. No. 302026

EAN Number
5702663020269

MECHANICAL

Packing QTY 10 pcs

Dimension 50 x 77 mm



Frame 50 surface mount for TD - white

Art. No. 302046

EAN Number
5702663020467

MECHANICAL

Packing QTY 10 pcs

Dimension 50 x 77 mm

Frames for OPUS TD outlets



Frame 66x66 surface mount for OPUS TD - white

Art. No. 153140

EAN Number
5702661531408

MECHANICAL

Packing QTY 10 pcs

Dimension 66x25x66 mm



Frame 66x132 surface mount for OPUS TD - white

Art. No. 153143

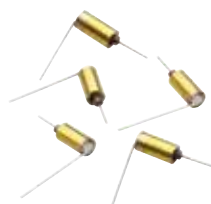
EAN Number
5702661531439

MECHANICAL

Packing QTY 10 pcs

Dimension 66x25x132 mm

Terminator for TRIAX outlets



R 75 Termination resistor, no DC blocker (75 W)

Art. No. 342503

EAN Number
5702663425033

MECHANICAL

Packing QTY 5 pcs



R 77 Termination resistor, no DC blocker (75 W)

Art. No. 302065

EAN Number
5702663020658

MECHANICAL

Packing QTY 5 pcs

TRIAX® Splitters and Taps series

coaxial couplers for CATV, Terrestrial and Satellite distribution



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

Selection of 5 ranges

TRIAX has upgraded its coaxial Splitter and Taps assortment with a selection of application specific product families.

- **BONITA** which meets enhanced special characteristics for DOCSIS 3.1 operation in CATV networks. All ports on one side with extremely reliable brass NiTin F-connectors
- **PLATINUM** which meets enhanced special characteristics for DOCSIS 3.1 operation in CATV networks.
- **GOLD** for all-around use in SMATV, MATV and CATV applications up to 1 GHz
- **SILVER** preferred for SAT-IF and MATV applications.
- **OUTDOOR** fully weather proofed (IP54).

With TRIAX you can always find the right solution for your distribution system.

BONITA Range 1.3 GHz



The 'Bonita' series of taps and splitters is especially designed to connect drop cables in CATV network distribution cabinets located Outdoors.

The highly robust F-connectors fit the enclosure of the tap or splitter, allowing the connection of thicker trunk cables such as the RG 11 directly onto the device.

The unique form factor, with all ports in one line and on one side, saves on the space required in the cabinet for cabling, and reduces installation time and effort.

The state of the art RF transmission performance makes your network ready for DOCSIS operation now and in the future.

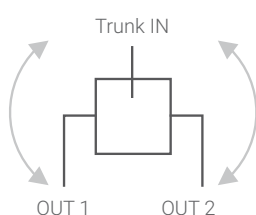
Your benefits

- No maintenance cost: the brass NiTin F-connectors function reliably and long term through all seasons.
- Future proof investment: ready for DOCSIS 3.1

Splitters and Taps – The Basics

Splitter

Splitters divide the signal from a trunk line into equal portions to the outputs.

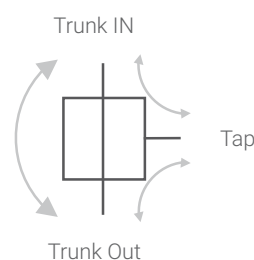


Insertion Loss

Attenuation between IN and OUT.

Tap

Taps divide a small portion of the signal on the trunk line to tap lines.



Insertion Loss

Attenuation between Trunk IN and Trunk OUT.

Tap Loss

Attenuation between Trunk IN and Tap.

TRIAX[®] Splitters and Taps series

the right choice

PLATINUM Range 1.2 GHz

The TRIAX "PLATINUM" Splitter and Taps are State of the Art components for use in coaxial indoor networks of bi-directional CATV distribution systems. The enhanced product performance is preferred for use in futureproofed networks with DOCSIS 2.0 / 3.0 / 3.1 operation.



- Extended frequency range to 1.2 GHz
- Low intermodulation in return path (EN 60728-4)
- All ports are AC/DC blocked to avoid hum modulations.
- Die-cast enclosures with CuSn coating and soldered back plates provide very high shielding.
- High-quality F-connectors combined with CuSn coating create reliable connectivity and high ingress protection in humid environments.

GOLD Range 1.0 GHz

The TRIAX "GOLD" Splitters and Taps are used in standard coaxial CATV, SMATV and MATV networks operating with analogue PAL as well as digital DVB-C (QAM) and DTT (COFDM, DAB) signals.



- All ports are AC/DC blocked to avoid hum modulations.
- Die-cast enclosures with tin (Sn) coating and soldered back plates provide very high shielding.
- High-quality F-connectors combined with tin coating create reliable connectivity and high quality screening.
- Optional plastic brackets for passing the coaxial cable below the device and mounting vertically.

SILVER Range 2.4 GHz

The TRIAX "SILVER" Indoor Splitters and Taps are used in coaxial SAT-IF distribution networks operating with DVB-S/S2 (QPSK, 8PSK) and/or in MATV applications with DTT (COFDM, DAB) signals.



- All outputs of the splitters SCS are DC directed coupled via diodes to the input, the taps SCT pass DC power through the trunk path
- The die-cast enclosures are tin (Sn) coated and the back plates are soldered for very high shielding.
- Optional: plastic brackets for passing the coaxial cable below the device and for distribution of several SAT-IF lines by stacking the splitters.

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

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APPENDIX

TRIAX® BONITA 1.3 GHz splitters

premium DOCSIS 3.1 solution



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common Features – ABS Splitter series

- Ready for DOCSIS 2.0/3.0/3.1
- Frequency range 5...1300 MHz
- Low passive intermodulation
- All ports in one line and on one side
- Firm fixed F-connector NiTin inserts
- Connector inner-pin Beryllium Bronze
- Zinc die-cast housing with Cu/Sn plated with aluminium bottom plate
- Weatherproof housing and connectors



**ABS 2, 2-way Splitter
1.3GHz**

Art. No. 343150

EAN Number
5702663431508



**ABS 4, 4-way Splitter
1.3GHz**

Art. No. 343152

EAN Number
5702663431522



**ABS 3, 3-way Splitter
1.3GHz**

Art. No. 343151

EAN Number
5702663431515



**ABS 6, 6-way Splitter
1.3GHz**

Art. No. 343154

EAN Number
5702663431546



**ABS 3AS, 3-way Splitter
1.3GHz**

Art. No. 343153

EAN Number
5702663431539



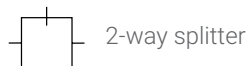
**ABS 8, 8-way Splitter
1.3GHz**

Art. No. 343155

EAN Number
5702663431553

TRIAX[®] BONITA splitters

for upgrading of distribution networks to DOCSIS 3.1



Type:	ABS 2 2-way Splitter 1.3GHz	ABS 3 3-way Splitter 1.3GHz	ABS 3AS 3-way Splitter 1.3GHz	ABS 4 4-way Splitter 1.3GHz	ABS 6 6-way Splitter 1.3GHz	ABS 8 8-way Splitter 1.3GHz
Art. No.	343150	343151	343153	343152	343154	343155
FREQUENCY						
Frequency range	5...1300MHz	5...1300MHz	5...1300MHz	5...1300MHz	5...1300MHz	5...1300MHz
LOSS						
Insertion loss (in-out) 5-470 MHz	≤3.7dB	≤5.8dB	≤5.8dB	≤7.1dB	≤9.3dB	≤10.7dB
Insertion loss (in-out) 470-862 MHz	≤3.9dB	≤6.1dB	≤6.1dB	≤7.6dB	≤10.0dB	≤11.4dB
Insertion loss (in-out) 862-1006 MHz	≤4.3dB	≤6.5dB	≤6.5dB	≤8.0dB	≤10.6dB	≤12.0dB
Insertion loss (in-out) 1006-1300 MHz	≤4.7dB	≤7.0dB	≤7.0dB	≤8.7dB	≤11.2dB	≤13.2dB
ISOLATION						
Isolation (tap-tap) 5-470 MHz	≥28dB	≥25dB	≥25dB	≥24dB	≥23dB	≥24dB
Isolation (tap-tap) 470-862 MHz	≥23dB	≥22dB	≥22dB	≥22dB	≥20dB	≥22dB
Isolation (tap-tap) 862-1006 MHz	≥22dB	≥20dB	≥20dB	≥20dB	≥20dB	≥20dB
Isolation (tap-tap) 1006-1300 MHz	≥20dB	≥18dB	≥18dB	≥20dB	≥18dB	≥20dB
RETURN LOSS						
Return Loss	22.0 (@47MHz 22-1.5/oct - min.14.5)dB					
ELECTRICAL						
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL						
EMC class	A +10dB	A +10dB	A +10dB	A +10dB	A +10dB	A +10dB
Temperature - operating	-20...60°C	-20...60°C	-20...60°C	-20...60°C	-20...60°C	-20...60°C
Weather Proof Rating	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
CONNECTORS						
Connector Type	F-female (IEC 61 169-24)					
Number of inputs	1	1	1	1	1	1
Number of outputs	2	3	3	4	6	8
MECHANICAL						
Product Depth	26.6mm	26.6mm	26.6mm	26.6mm	26.6mm	26.6mm
Product Height	41.3mm	41.3mm	41.3mm	41.3mm	58mm	58mm
Product Width	86mm	110mm	110mm	151mm	220mm	220mm
Main Material	Zinc die-cast, Cu-Sn plated					
Packing QTY	1	1	1	1	1	1
Net Weight	0,102kg	0,129kg	0,129kg	0,175kg	0,286kg	0,304kg

TERRESTRIAL
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RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
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CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® BONITA 1.3 GHz, 1-way tap

premium DOCSIS 3.1 solution



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(CCTV)

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TOOLS &
CABINETS

TECHNICAL
APPENDIX

Cable TV	HD TV	ECO 	EASY mounting 	Warranty 2 Years	 x 1
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Common Features – ABT Taps series

- Ready for DOCSIS 2.0/3.0/3.1
- Frequency range 5...1300 MHz
- Low passive intermodulation
- All ports in one line and on one side
- Firm fixed F-connector NiTin inserts
- Connector inner-pin Beryllium Bronze
- Zinc die-cast housing with Cu/Sn plated with aluminium bottom plate
- Weatherproof housing and connectors

ABT 1-6, 1-way Tap 1.3GHz

Art. No. 343160

EAN Number
5702663431607



ABT 1-12, 1-way Tap 1.3GHz

Art. No. 343163

EAN Number
5702663431638



ABT 1-8, 1-way Tap 1.3GHz

Art. No. 343161

EAN Number
5702663431614



ABT 1-16, 1-way Tap 1.3GHz

Art. No. 343164

EAN Number
5702663431645



ABT 1-10, 1-way Tap 1.3GHz

Art. No. 343162

EAN Number
5702663431621



ABT 1-20, 1-way Tap 1.3GHz

Art. No. 343165

EAN Number
5702663431652



TRIAX® BONITA taps

for upgrading of distribution networks to DOCSIS 3.1



ABT 1-24, 1-way Tap 1.3GHz

Art. No. 343166

EAN Number
5702663431669

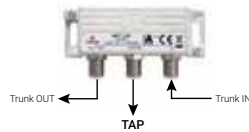


ABT 1-28, 1-way Tap 1.3GHz

Art. No. 343167

EAN Number
5702663431676

1-way tap



Type:	ABT 1-6, 1-way Tap 1.3GHz	ABT 1-8, 1-way Tap 1.3GHz	ABT 1-10, 1-way Tap 1.3GHz	ABT 1-12, 1-way Tap 1.3GHz	ABT 1-16, 1-way Tap 1.3GHz	ABT 1-20, 1-way Tap 1.3GHz	ABT 1-24, 1-way Tap 1.3GHz	ABT 1-28, 1-way Tap 1.3GHz
Art. No.	343160	343161	343162	343163	343164	343165	343166	343167
FREQUENCY								
Frequency range	5...1300MHz							
LOSS								
Insertion loss (in-out) 5-470 MHz	2.8dB	2.0dB	1.4dB	1.1dB	0.9dB	0.9dB	0.9dB	0.9dB
Insertion loss (in-out) 470-862 MHz	3.3dB	2.6dB	2.0dB	1.5dB	1.1dB	1.1dB	1.1dB	1.1dB
Insertion loss (in-out) 862-1006 MHz	3.5dB	2.8dB	2.3dB	1.7dB	1.3dB	1.3dB	1.3dB	1.3dB
Insertion loss (in-out) 1006-1300 MHz	3.6dB	3.4dB	3.1dB	2.5dB	2.3dB	2.3dB	2.3dB	2.3dB
Tap loss (in-tap) 5-1300 MHz	6.6	8.3	10.2	12.1	16.0	20.0	23.9	30.0
	±1.2dB	±1.2dB	±1.2dB	±1.2dB	±1.2dB	±1.2dB	±1.2dB	±1.2dB
ISOLATION								
Isolation (out-tap) 5-470 MHz	22dB	22dB	24dB	24dB	28dB	28dB	28dB	28dB
Isolation (out-tap) 470-862 MHz	20dB	20dB	21dB	22dB	23dB	24dB	26dB	27dB
Isolation (out-tap) 862-1006 MHz	20dB	20dB	20dB	21dB	22dB	22dB	24dB	25dB
Isolation (out-tap) 1006-1300 MHz	20dB	20dB	20dB	20dB	21dB	21dB	21dB	22dB
RETURN LOSS								
Return Loss	22.0 (@47MHz 22-1.5/oct - min.14.5)dB							
ELECTRICAL								
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL								
EMC class	A +10dB	A +10dB	A +10dB	A +10dB	A +10dB	A +10dB	A +10dB	A +10dB
Temperature - operating	-20...60°C	-20...60°C	-20...60°C	-20...60°C	-20...60°C	-20...60°C	-20...60°C	-20...60°C
Weather Proof Rating	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
CONNECTORS								
Connector Type	F-female (IEC 61 169-24)							
Number of inputs	1	1	1	1	1	1	1	1
Number of outputs	1	1	1	1	1	1	1	1
Number of taps	1	1	1	1	1	1	1	1
MECHANICAL								
Product Depth	26.6mm	26.6mm	26.6mm	26.6mm	26.6mm	26.6mm	26.6mm	26.6mm
Product Height	41.3mm	41.3mm	41.3mm	41.3mm	41.3mm	41.3mm	41.3mm	41.3mm
Product Width	86mm	86mm	86mm	86mm	86mm	86mm	86mm	86mm
Main Material	Zinc die-cast, Cu-Sn plated							
Packing QTY	1	1	1	1	1	1	1	1
Net Weight	0,102kg	0,102kg	0,102kg	0,102kg	0,102kg	0,102kg	0,102kg	0,102kg

TERRESTRIAL
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& FIBRE
RECEPTION

CABLE TV
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CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® BONITA 1.3 GHz, 2-way taps

premium DOCSIS 3.1 solution



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(CCTV)

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TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common Features – ABT Taps series

- Ready for DOCSIS 2.0/3.0/3.1
- Frequency range 5...1300 MHz
- Low passive intermodulation
- All ports in one line and on one side
- Firm fixed F-connector NiTin inserts
- Connector inner-pin Beryllium Bronze
- Zinc die-cast housing with Cu/Sn plated with aluminium bottom plate
- Weatherproof housing and connectors

ABT 2-8, 2-way Tap 1.3GHz

Art. No. 343168

EAN Number
5702663431683



ABT 2-16, 2-way Tap 1.3GHz

Art. No. 343171

EAN Number
5702663431713



ABT 2-10, 2-way Tap 1.3GHz

Art. No. 343169

EAN Number
5702663431690



ABT 2-20, 2-way Tap 1.3GHz

Art. No. 343172

EAN Number
5702663431720



ABT 2-12, 2-way Tap 1.3GHz

Art. No. 343170

EAN Number
5702663431706



TRIAX® BONITA taps

for upgrading of distribution networks to DOCSIS 3.1

ABT 2-24, 2-way Tap 1.3GHz

Art. No. 343173

EAN Number
5702663431737



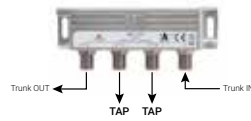
ABT 2-28, 2-way Tap 1.3GHz

Art. No. 343174

EAN Number
5702663431744



2-way tap



Type:	ABT 2-8, 2-way Tap 1.3GHz	ABT 2-10, 2-way Tap 1.3GHz	ABT 2-12, 2-way Tap 1.3GHz	ABT 2-16, 2-way Tap 1.3GHz	ABT 2-20, 2-way Tap 1.3GHz	ABT 2-24, 2-way Tap 1.3GHz	ABT 2-28, 2-way Tap 1.3GHz
Art. No.	343168	343169	343170	343171	343172	343173	343174
FREQUENCY							
Frequency range	5...1300MHz						
LOSS							
Insertion loss (in-out) 5-470 MHz	3.7dB	2.9dB	1.7dB	1.5dB	1.5dB	1.5dB	1.5dB
Insertion loss (in-out) 470-862 MHz	4.0dB	3.4dB	2.1dB	1.8dB	1.8dB	1.8dB	1.8dB
Insertion loss (in-out) 862-1006 MHz	4.3dB	3.6dB	2.3dB	2.1dB	2.1dB	2.1dB	2.1dB
Insertion loss (in-out) 1006-1300 MHz	5.4dB	4.5dB	2.9dB	2.7dB	2.7dB	2.7dB	2.7dB
Tap loss (in-tap) 5-1300 MHz	8.5 ±1.2dB	10.2 ±1.2dB	12.4 ±1.2dB	16.3 ±1.2dB	20.0 ±1.2dB	24.0 ±1.2dB	28.0 ±1.2dB
ISOLATION							
Isolation (tap-tap) 5-470 MHz	28dB	32dB	34dB	34dB	35dB	35dB	35dB
Isolation (tap-tap) 470-862 MHz	25dB	30dB	32dB	34dB	35dB	35dB	35dB
Isolation (tap-tap) 862-1006 MHz	24dB	28dB	30dB	32dB	33dB	35dB	35dB
Isolation (tap-tap) 1006-1300 MHz	22dB	25dB	25dB	28dB	31dB	34dB	34dB
Isolation (out-tap) 5-470 MHz	26dB	26dB	26dB	26dB	28dB	30dB	32dB
Isolation (out-tap) 470-862 MHz	23dB	23dB	23dB	23dB	24dB	25dB	27dB
Isolation (out-tap) 862-1006 MHz	21dB	21dB	21dB	22dB	22dB	24dB	26dB
Isolation (out-tap) 1006-1300 MHz	20dB	20dB	20dB	20dB	20dB	22dB	22dB
RETURN LOSS							
Return Loss	22.0 (@47MHz 22-1.5/oct - min.14.5)dB						
ELECTRICAL							
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL							
EMC class	A +10dB	A +10dB	A +10dB	A +10dB	A +10dB	A +10dB	A +10dB
Temperature - operating	-20...60°C	-20...60°C	-20...60°C	-20...60°C	-20...60°C	-20...60°C	-20...60°C
Weather Proof Rating	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
CONNECTORS							
Connector Type	F-female (IEC 61 169-24)						
Number of inputs	1	1	1	1	1	1	1
Number of outputs	1	1	1	1	1	1	1
Number of taps	2	2	2	2	2	2	2
MECHANICAL							
Product Depth	26.6mm	26.6mm	26.6mm	26.6mm	26.6mm	26.6mm	26.6mm
Product Height	41.3mm	41.3mm	41.3mm	41.3mm	41.3mm	41.3mm	41.3mm
Product Width	110mm	110mm	110mm	110mm	110mm	110mm	110mm
Main Material	Zinc die-cast, Cu-Sn plated						
Packing QTY	1	1	1	1	1	1	1
Net Weight	0,128kg	0,128kg	0,128kg	0,128kg	0,128kg	0,128kg	0,128kg

TERRESTRIAL
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CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

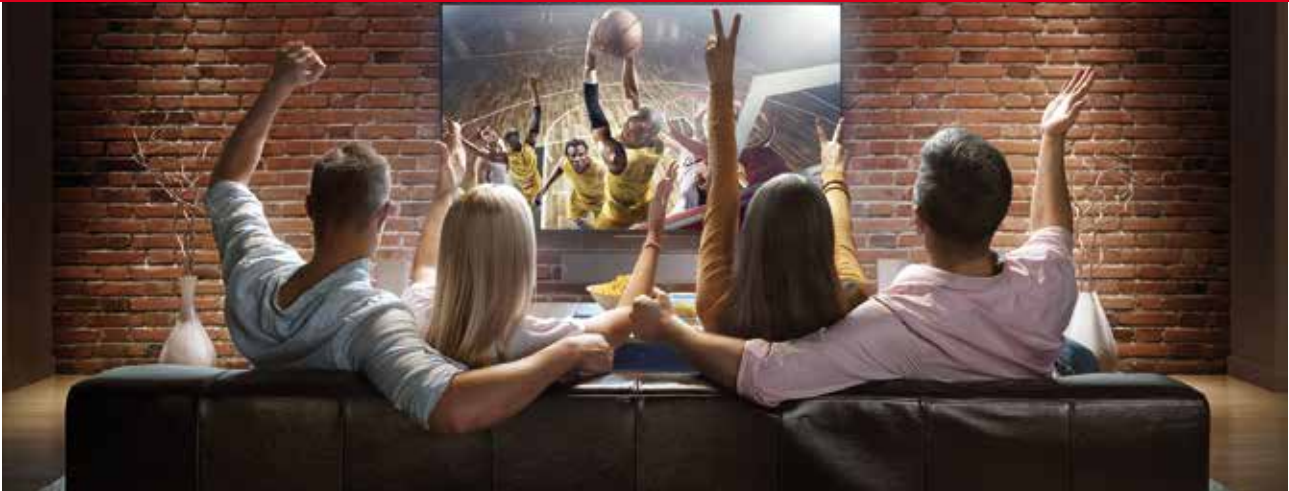
SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® BONITA 1.3 GHz, 3 & 4-way taps

premium DOCSIS 3.1 solution



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TAPS &
SPLITTER

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CONNECTIVITY

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(CCTV)

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CABINETS

TECHNICAL
APPENDIX



Common Features – ABT Taps series

- Ready for DOCSIS 2.0/3.0/3.1
- Frequency range 5...1300 MHz
- Low passive intermodulation
- All ports in one line and on one side
- Firm fixed F-connector NiTin inserts
- Connector inner-pin Beryllium Bronze
- Zinc die-cast housing with Cu/Sn plated with aluminium bottom plate
- Weatherproof housing and connectors

ABT 3-16, 3-way Tap 1.3GHz

Art. No. 343175

EAN Number
5702663431751



ABT 4-12, 4-way Tap 1.3GHz

Art. No. 343177

EAN Number
5702663431775



ABT 3-20, 3-way Tap 1.3GHz

Art. No. 343176

EAN Number
5702663431768



ABT 4-16, 4-way Tap 1.3GHz

Art. No. 343178

EAN Number
5702663431782



ABT 4-20, 4-way Tap 1.3GHz

Art. No. 343179

EAN Number
5702663431799



TRIAX® BONITA taps

for upgrading of distribution networks to DOCSIS 3.1

ABT 4-24, 4-way Tap 1.3GHz

Art. No. 343180

EAN Number
5702663431805



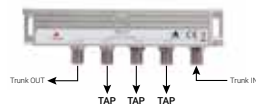
ABT 4-28, 4-way Tap 1.3GHz

Art. No. 343181

EAN Number
5702663431812



3-way tap



4-way tap



Type:	ABT 3-16, 3-way Tap 1.3GHz	ABT 3-20, 3-way Tap 1.3GHz	ABT 4-12, 4-way Tap 1.3GHz	ABT 4-16, 4-way Tap 1.3GHz	ABT 4-20, 4-way Tap 1.3GHz	ABT 4-24, 4-way Tap 1.3GHz	ABT 4-28, 4-way Tap 1.3GHz
Art. No.	343175	343176	343177	343178	343179	343180	343181
FREQUENCY							
Frequency range	5...1300MHz						
LOSS							
Insertion loss (in-out) 5-470 MHz	1.8dB	1.8dB	4.5dB	2.3dB	2.3dB	2.3dB	2.3dB
Insertion loss (in-out) 470-862 MHz	2.0dB	2.0dB	4.7dB	2.6dB	2.6dB	2.6dB	2.6dB
Insertion loss (in-out) 862-1006 MHz	2.2dB	2.2dB	5.2dB	3.0dB	3.0dB	3.0dB	3.0dB
Insertion loss (in-out) 1006-1300 MHz	3.1dB	3.1dB	5.1dB	3.9dB	3.9dB	3.9dB	3.9dB
Tap loss (in-tap) 5-1300 MHz	16.1 ±1.2dB	20.1 ±1.2dB	12.4 ±1.5dB	16.2 ±1.5dB	20.0 ±1.5dB	24.0 ±1.5dB	28.0 ±1.5dB
ISOLATION							
Isolation (tap-tap) 5-470 MHz	34dB	34dB	34dB	36dB	38dB	38dB	40dB
Isolation (tap-tap) 470-862 MHz	32dB	32dB	32dB	34dB	36dB	36dB	38dB
Isolation (tap-tap) 862-1006 MHz	32dB	32dB	30dB	32dB	34dB	34dB	36dB
Isolation (tap-tap) 1006-1300 MHz	30dB	30dB	28dB	30dB	32dB	32dB	34dB
Isolation (out-tap) 5-470 MHz	24dB	28dB	24dB	24dB	24dB	25dB	25dB
Isolation (out-tap) 470-862 MHz	22dB	22dB	22dB	21dB	21dB	24dB	24dB
Isolation (out-tap) 862-1006 MHz	21dB	21dB	20dB	21dB	21dB	22dB	22dB
Isolation (out-tap) 1006-1300 MHz	20dB	20dB	20dB	20dB	20dB	20dB	20dB
RETURN LOSS							
Return Loss	22.0 (@47MHz 22-1.5/oct - min.14.5)dB						
ELECTRICAL							
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL							
EMC class	A +10dB	A +10dB	A +10dB	A +10dB	A +10dB	A +10dB	A +10dB
Temperature - operating	-20...60°C	-20...60°C	-20...60°C	-20...60°C	-20...60°C	-20...60°C	-20...60°C
Weather Proof Rating	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
CONNECTORS							
Connector Type	F-female (IEC 61 169-24)						
Number of inputs	1	1	1	1	1	1	1
Number of outputs	1	1	1	1	1	1	1
Number of taps	3	3	4	4	4	4	4
MECHANICAL							
Product Depth	26.6mm	26.6mm	26.6mm	26.6mm	26.6mm	26.6mm	26.6mm
Product Height	41.3mm	41.3mm	41.3mm	41.3mm	41.3mm	41.3mm	41.3mm
Product Width	151mm	151mm	151mm	151mm	151mm	151mm	151mm
Main Material	Zinc die-cast, Cu-Sn plated						
Packing QTY	1	1	1	1	1	1	1
Net Weight	0,000kg	0,128kg	0,179kg	0,179kg	0,179kg	0,179kg	0,179kg

TERRESTRIAL
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CONNECTIVITY

SURVEILLANCE
(CCTV)

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TOOLS &
CABINETS

TECHNICAL
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TRIAX® BONITA 1.3 GHz, 4, 6 & 8-ways taps

premium DOCSIS 3.1 solution



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RECEPTION

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OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common Features – ABT Taps series

- Ready for DOCSIS 2.0/3.0/3.1
- Frequency range 5...1300 MHz
- Low passive intermodulation
- All ports in one line and on one side
- Firm fixed F-connector NiTin inserts
- Connector inner-pin Beryllium Bronze
- Zinc die-cast housing with Cu/Sn plated with aluminium bottom plate
- Weatherproof housing and connectors

ABT 4-12T, 4-way Tap 1.3GHz

Art. No. 343186
EAN Number
5702663431867



ABT 8-16T, 8-way Tap 1.3GHz

Art. No. 343184
EAN Number
5702663431843



ABT 6-14T, 6-way Tap 1.3GHz

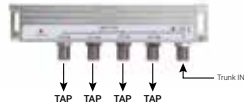
Art. No. 343182
EAN Number
5702663431829



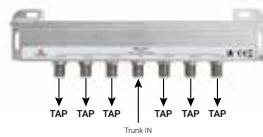
TRIAX® BONITA taps

for upgrading of distribution networks to DOCSIS 3.1

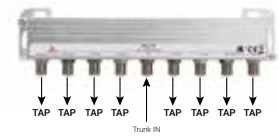
4-way T-tap



6-way T-tap



8-way T-tap



Type:	ABT 4-12T	ABT 6-14T	ABT 8-16T
	4-way Tap	6-way Tap	8-way Tap
	1.3GHz	1.3GHz	1.3GHz
Art. No.	343186	343182	343184
FREQUENCY			
Frequency range	5...1300MHz	5...1300MHz	5...1300MHz
LOSS			
Tap loss (in-tap) 5-1300 MHz	12,4 ±1.5dB	14.1 ±1.5dB	15.8 ±1.5dB
ISOLATION			
Isolation (tap-tap) 5-470 MHz	34dB	34dB	36dB
Isolation (tap-tap) 470-862 MHz	32dB	32dB	32dB
Isolation (tap-tap) 862-1006 MHz	30dB	30dB	30dB
Isolation (tap-tap) 1006-1300 MHz	28dB	28dB	28dB
RETURN LOSS			
Return Loss	22.0 (@47MHz 22-1.5/oct - min.14.5)dB		
ELECTRICAL			
Impedance	75Ω	75Ω	75Ω
OPERATIONAL			
EMC class	A +10dB	A +10dB	A +10dB
Temperature - operating	-20...60°C	-20...60°C	-20...60°C
Weather Proof Rating	IP 67	IP 67	IP 67
CONNECTORS			
Connector Type	F-female (IEC 61 169-24)		
Number of inputs	1	1	1
Number of outputs	1	1	1
Number of taps	4	6	8
MECHANICAL			
Product Depth	26.6mm	26.6mm	26.6mm
Product Height	41mm	58mm	58mm
Product Width	151mm	220mm	220mm
Extra high bracket	Optional		
Main Material	Zinc die-cast, Cu-Sn plated		
Packing QTY	1	1	1
Weight	0,174kg	0,289kg	0,305kg

TERRESTRIAL
RECEPTION

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HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® Platinum 1.2 GHz splitters

for CATV bi-directional distribution networks, with DOCSIS



TERRESTRIAL RECEPTION
SATELLITE & FIBRE RECEPTION
CABLE TV (CATV)
HEADENDS CAS SYSTEM MODULATORS
CABLES & CONNECTORS
OUTLETS TAPS & SPLITTER
INHOUSE CONNECTIVITY
SURVEILLANCE (CCTV)
INSTRUMENTS TOOLS & CABINETS
TECHNICAL APPENDIX



Common Features – VFC Splitter series

Enhanced product characteristics including low intermodulation, extended frequency range and mechanical performance for use in future proofed CATV networks.

- Excellent performance for CATV with DOCSIS 2.0/3.0/3.1 operation
- Frequency range 5 MHz up to 1.2 GHz
- High shielding of 110 dB

- Low intermodulation <15 dBμV after surge @ output level 120 dBμV on return path
- All ports AC/DC blocked at inner conductor
- Return loss Grade 2 (>18 dB)
- F- female connectors, EN 61169-24 compliant, spring clips brazen of phosphor bronze tin plated
- Die-cast housing with high quality (CuSn) coating
- Meets EN 50083-2, EN 60728-4

VFC 0421 - 2 way splitter

Art. No. 343012

EAN Number
5702663430129



VFC 1061 - 6 way splitter

Art. No. 343016

EAN Number
5702663430167



VFC 0631 - 3 way splitter

Art. No. 343013

EAN Number
5702663430136



VFC 1281 - 8 way splitter

Art. No. 343018

EAN Number
5702663430181



VFC 0741 - 4 way splitter

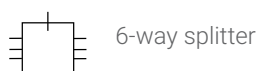
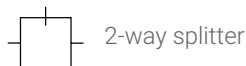
Art. No. 343014

EAN Number
5702663430143



TRIAX® Platinum splitters

for upgrading of distribution networks to DOCSIS 3.1



Type:	VFC 0421 2 way splitter	VFC 0631 3 way splitter	VFC 0741 4 way splitter	VFC 1061 6 way splitter	VFC 1281 8 way splitter
Art. No.	343012	343013	343014	343016	343018
SHIELDING					
Shielding efficiency VHF/UHF	> 110dB	> 110dB	> 110dB	> 110dB	> 110dB
FREQUENCY					
Frequency range	5...1218MHz	5...1218MHz	5...1218MHz	5...1218MHz	5...1218MHz
LOSS					
Insertion loss (in-out) 5-40 MHz	3.4 ±0.5dB	5.4 ±0.6dB	7.3 ±0.5dB	10.1 ±0.5dB	11.8 ±0.5dB
Insertion loss (in-out) 40-470 MHz	3.4 ±0.5dB	5.4 ±0.6dB	7.3 ±0.5dB	10.1 ±0.5dB	11.8 ±0.5dB
Insertion loss (in-out) 470-860 MHz	3.7 ±0.7dB	5.5 ±1.0dB	7.5 ±1.0dB	10.2 ±1.0dB	11.8 ±0.7dB
Insertion loss (in-out) 860-1000 MHz	3.7 ±0.7dB	5.8 ±0.9dB	7.5 ±1.0dB	11.0 ±1.0dB	12.0 ±1.0dB
Insertion loss (in-out) 1000-1200 MHz	4.1 ±1.0dB	6.7 ±1.3dB	8.3 ±1.2dB	12.8 ±1.2dB	13.8 ±1.2dB
ISOLATION					
Isolation (tap-tap) 5-40 MHz	> 24dB	> 24dB	> 26dB	> 22dB	> 22dB
Isolation (tap-tap) 40-470 MHz	> 24dB	> 24dB	> 24dB	> 22dB	> 22dB
Isolation (tap-tap) 470-860 MHz	> 20dB	> 22dB	> 20dB	> 20dB	> 20dB
Isolation (tap-tap) 860-1000 MHz	> 20dB	> 20dB	> 18dB	> 20dB	> 20dB
RETURN LOSS					
Return loss (in-out) 5-40 MHz	> 18dB	> 20dB	> 20dB	> 18dB	> 18dB
Return loss (in-out) 40-470 MHz	> 20dB	> 20dB	> 20dB	> 20dB	> 20dB
Return loss (in-out) 470-860 MHz	> 18dB	> 16dB	> 18dB	> 16dB	> 16dB
Return loss (in-out) 860-1000 MHz	> 18dB	> 16dB	> 18dB	> 16dB	> 16dB
Return loss (in-out) 1000-1200 MHz	> 12dB	> 12dB	> 12dB	> 12dB	> 12dB
ELECTRICAL					
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL					
Certification	CE, RoHS, EN 60728-4				
DC Passthrough	NO - DC blocked at inner conductor				
DOCSIS	3.1	3.1	3.1	3.1	3.1
EMC class	A +10dB	A +10dB	A +10dB	A +10dB	A +10dB
CONNECTORS					
Connector Type	F-female (IEC 61 169-24)				
Number of inputs	1	1	1	1	1
Number of outputs	2	3	4	6	8
MECHANICAL					
Product Depth	20mm	20mm	20mm	40.3mm	40.3mm
Product Width	40.6mm	69.7mm	69.7mm	135mm	135mm
Product Height	52.5mm	52.5mm	52.5mm	61.1mm	61.1mm
Main Material	Zinc Die-casting, CuSn plated				
Packing QTY	1	1	1	1	1
Net Weight	0.055kg	0.078kg	0.200kg	0.300kg	0.310kg

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® Platinum 1.2 GHz, 1-way tap

for CATV bi-directional distribution networks, with DOCSIS



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common Features – AFC Tap series

Enhanced product characteristics including low intermodulation, extended frequency range and mechanical performance for use in future proofed CATV networks.

- Excellent performance for CATV with DOCSIS 2.0/3.0/3.1 operation
- Frequency range 5 MHz up to 1.2 GHz
- High shielding of 110 dB

- Low intermodulation <15 dBμV after surge @ output level 120 dBμV on return path
- All ports AC/DC blocked at inner conductor
- Return loss Grade 2 (>18 dB)
- F- female connectors, EN 61169-24 compliant, spring clips of tin plated phosphor bronze
- Die-cast housing with high quality (CuSn) coating
- Meets EN 50083-2, EN 60728-4

AFC 0611 - 1 way tap

Art. No. 343100

EAN Number
5702663431003



AFC 1611 - 1 way tap

Art. No. 343103

EAN Number
5702663431034



AFC 0811 - 1 way tap

Art. No. 343101

EAN Number
5702663431010



AFC 2011 - 1 way tap

Art. No. 343104

EAN Number
5702663431041



AFC 1211 - 1 way tap

Art. No. 343102

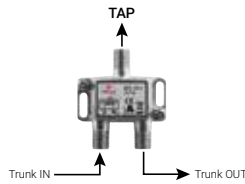
EAN Number
5702663431027



TRIAX® Platinum taps

frequency range 5...1200 MHz

1-way tap



Type:	AFC 0611	AFC 0811	AFC 1211	AFC 1611	AFC 2011
1 way tap	1 way tap	1 way tap	1 way tap	1 way tap	1 way tap
Art. No.	343100	343101	343102	343103	343104
SHIELDING					
Shielding efficiency VHF/UHF	> 110dB	> 110dB	> 110dB	> 110dB	> 110dB
FREQUENCY					
Frequency range	5...1218MHz	5...1218MHz	5...1218MHz	5...1218MHz	5...1218MHz
LOSS					
Insertion loss (in-out) 5-40 MHz	2.1 ±0.5dB	1.3 ±0.5dB	0.7 ±0.5dB	0.5 ±0.4dB	0.5 ±0.3dB
Insertion loss (in-out) 40-470 MHz	2.1 ±0.5dB	1.3 ±0.5dB	0.7 ±0.5dB	0.5 ±0.4dB	0.5 ±0.3dB
Insertion loss (in-out) 470-860 MHz	2.3 ±0.5dB	1.7 ±0.3dB	0.9 ±0.5dB	0.6 ±0.5dB	0.6 ±0.4dB
Insertion loss (in-out) 860-1000 MHz	2.4 ±0.6dB	1.7 ±0.5dB	0.9 ±0.7dB	0.7 ±0.4dB	0.6 ±0.4dB
Insertion loss (in-out) 1000-1200 MHz	3.0 ±0.7dB	2.0 ±0.5dB	1.2 ±0.6dB	1.0 ±0.4dB	0.9 ±0.4dB
Tap loss (in-tap) 5-40 MHz	7 ±1dB	8.5dB	12dB	16dB	20.5dB
Tap loss (in-tap) 40-470 MHz	7 ±1dB	8.5dB	12dB	16dB	20.5dB
Tap loss (in-tap) 470-860 MHz	7dB	8.5dB	12dB	16dB	20.5dB
Tap loss (in-tap) 860-1000 MHz	7±1dB	8.5 ± 1dB	12 ± 1dB	16 ± 1dB	20.5 ± 1dB
Tap loss (in-tap) 1000-1200 MHz	7± 1.2dB	8.5 ± 1.2dB	12 ± 2dB	16 ± 2dB	20.5 ± 2dB
ISOLATION					
Isolation (out-tap) 5-40 MHz	28dB	30dB	32dB	36dB	40dB
Isolation (out-tap) 40-470 MHz	24dB	28dB	30dB	32dB	35dB
Isolation (out-tap) 470-860 MHz	22dB	26dB	28dB	30dB	33dB
Isolation (out-tap) 860-1000 MHz	20dB	24dB	26dB	30dB	33dB
Isolation (out-tap) 1000-1200 MHz	20dB	22dB	24dB	27dB	29dB
RETURN LOSS					
Return loss (in-out) 5-40 MHz	22dB	20dB	22dB	22dB	22dB
Return loss (in-out) 40-470 MHz	18dB	20dB	18dB	18dB	18dB
Return loss (in-out) 470-860 MHz	16dB	16dB	16dB	18dB	16dB
Return loss (in-out) 860-1000 MHz	16dB	16dB	14dB	18dB	16dB
Return loss (in-out) 1000-1200 MHz	14dB	14dB	12dB	14dB	14dB
Return loss (tap) 5-40 MHz	22dB	20dB	22dB	22dB	22dB
Return loss (tap) 40-470 MHz	22dB	20dB	22dB	18dB	22dB
Return loss (tap) 470-860 MHz	20dB	16dB	18dB	18dB	22dB
Return loss (tap) 860-1000 MHz	16dB	16dB	16dB	18dB	20dB
Return loss (tap) 1000-1200 MHz	14dB	14dB	12dB	14dB	18dB
ELECTRICAL					
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL					
Certification	CE, RoHS, EN 60728-4				
DC Passthrough	NO - DC blocked at inner conductor				
DOCSIS	3.1	3.1	3.1	3.1	3.1
EMC class	A +10dB	A +10dB	A +10dB	A +10dB	A +10dB
CONNECTORS					
Connector Type	F-female (IEC 61 169-24)				
Number of inputs	1	1	1	1	1
Number of outputs	1	1	1	1	1
Number of taps	1	1	1	1	1
MECHANICAL					
Product Depth	20mm	20mm	20mm	20mm	20mm
Product Width	47.8mm	47.8mm	47.8mm	47.8mm	47.8mm
Product Height	52.5mm	52.5mm	52.5mm	52.5mm	52.5mm
Main Material	Zinc Die-casting CuSn plated				
Packing QTY	1	1	1	1	1
Net Weight	0,055kg	0,055kg	0,055kg	0,055kg	0,055kg

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX[®] Platinum 1.2 GHz, 2-way tap

for CATV bi-directional distribution networks, with DOCSIS



Common Features – AFC Tap series

Enhanced product characteristics including low intermodulation, extended frequency range and mechanical performance for use in future proofed CATV networks.

- Excellent performance for CATV with DOCSIS 2.0/3.0/3.1 operation
- Frequency range 5 MHz up to 1.2 GHz
- High shielding of 110 dB

- Low intermodulation <15 dBμV after surge @ output level 120 dBμV on return path
- All ports AC/DC blocked at inner conductor
- Return loss Grade 2 (>18 dB)
- F- female connectors, EN 61169-24 compliant, spring clips of tin plated phosphor bronze
- Die-cast housing with high quality (CuSn) coating
- Meets EN 50083-2, EN 60728-4

AFC 0921 - 2 way tap

Art. No. 343131

EAN Number
5702663431317



AFC 1621 - 2 way tap

Art. No. 343133

EAN Number
5702663431331



AFC 1221 - 2 way tap

Art. No. 343132

EAN Number
5702663431324



AFC 2021 - 2 way tap

Art. No. 343134

EAN Number
5702663431348



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

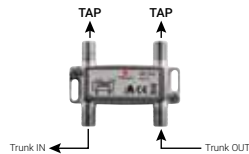
INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAx® Platinum taps

frequency range 5...1200 MHz

2-way tap



Type:	AFC 0921	AFC 1221	AFC 1621	AFC 2021
Art. No.	343131	343132	343133	343134
SHIELDING				
Shielding efficiency VHF/UHF	> 110dB	> 110dB	> 110dB	> 110dB
FREQUENCY				
Frequency range	5...1218MHz	5...1218MHz	5...1218MHz	5...1218MHz
LOSS				
Insertion loss (in-out) 5-40 MHz	2.6 ±1.3dB	1.4 ±0.3dB	0.8 ±0.5dB	0.8 ±0.5dB
Insertion loss (in-out) 40-470 MHz	2.6 ±1.3dB	1.4 ±0.4dB	0.8 ±0.5dB	0.8 ±0.5dB
Insertion loss (in-out) 470-860 MHz	3.0 ±0.9dB	1.5 ±0.5dB	1.0 ±0.6dB	1.0 ±0.4dB
Insertion loss (in-out) 860-1000 MHz	3.2 ±1.1dB	1.6 ±0.6dB	1.2 ±0.6dB	1.0 ±0.6dB
Insertion loss (in-out) 1000-1200 MHz	4.3 ±0.7dB	1.9 ±0.6dB	1.7 ±0.5dB	1.6 ±0.7dB
Tap loss (in-tap) 5-40 MHz	8.5dB	13dB	16.5dB	20.5 ±1.2dB
Tap loss (in-tap) 5-40 MHz	8.5dB	13dB	16.5dB	20.5 ±1.2dB
Tap loss (in-tap) 470-860 MHz	8.5dB	13dB	16.5dB	20.5dB
Tap loss (in-tap) 860-1000 MHz	8.5dB	13dB	16.5 ±1.2dB	20.5dB
Tap loss (in-tap) 1000-1200 MHz	8.5 ±2dB	13 ±2dB	16.5 ±2.0dB	20.5 ±2.0dB
ISOLATION				
Isolation (out-tap) 5-40 MHz	28dB	30dB	36dB	36dB
Isolation (out-tap) 40-470 MHz	24dB	26dB	30dB	32dB
Isolation (out-tap) 470-860 MHz	22dB	24dB	28dB	32dB
Isolation (out-tap) 860-1000 MHz	22dB	24dB	28dB	30dB
Isolation (out-tap) 1000-1200 MHz	20dB	20dB	25dB	26dB
Isolation (tap-tap) 5-40 MHz	36dB	42dB	46dB	54dB
Isolation (tap-tap) 40-470 MHz	32dB	40dB	46dB	50dB
Isolation (tap-tap) 470-860 MHz	30dB	40dB	42dB	50dB
Isolation (tap-tap) 860-1000 MHz	30dB	34dB	36dB	36dB
Isolation (tap-tap) 1000-1200 MHz	25dB	30dB	36dB	36dB
RETURN LOSS				
Return loss (in-out) 5-40 MHz	20dB	20dB	22dB	22dB
Return loss (in-out) 40-470 MHz	18dB	18dB	18dB	18dB
Return loss (in-out) 470-860 MHz	18dB	18dB	16dB	16dB
Return loss (in-out) 860-1000 MHz	16dB	16dB	16dB	16dB
Return loss (in-out) 1000-1200 MHz	12dB	12dB	12dB	12dB
Return loss (tap) 5-40 MHz	22dB	22dB	22dB	22dB
Return loss (tap) 40-470 MHz	18dB	18dB	18dB	18dB
Return loss (tap) 470-860 MHz	16dB	16dB	16dB	16dB
Return loss (tap) 860-1000 MHz	14dB	16dB	14dB	14dB
Return loss (tap) 1000-1200 MHz	12dB	12dB	12dB	12dB
ELECTRICAL				
Impedance	75Ω	75Ω	75Ω	75Ω
OPERATIONAL				
Certification	CE, RoHS, EN 60728-4			
DC Passthrough	NO - DC blocked at inner conductor			
DOCSIS	3.1	3.1	3.1	3.1
EMC class	A +10dB	A +10dB	A +10dB	A +10dB
CONNECTORS				
Connector Type	F-female (IEC 61 169-24)			
Number of inputs	1	1	1	1
Number of outputs	1	1	1	1
Number of taps	2	2	2	2
MECHANICAL				
Product Depth	20mm	20mm	20mm	20mm
Product Width	69.7mm	69.7mm	69.7mm	69.7mm
Product Height	52.5mm	52.5mm	52.5mm	52.5mm
Main Material	Zinc Die-casting CuSn plated			
Packing QTY	1	1	1	1
Net Weight	0,078kg	0,078kg	0,078kg	0,078kg

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX[®] Platinum 1.2 GHz, 4, 6, 8-way tap

for CATV bi-directional distribution networks, with DOCSIS



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common Features – AFC Tap series

Enhanced product characteristics including low intermodulation, extended frequency range and mechanical performance for use in future proofed CATV networks.

- Excellent performance for CATV with DOCSIS 2.0/3.0/3.1 operation
- Frequency range 5 MHz up to 1.2 GHz
- High shielding of 110 dB

- Low intermodulation <15 dBμV after surge @ output level 120 dBμV on return path
- All ports AC/DC blocked at inner conductor
- Return loss Grade 2 (>18 dB)
- F- female connectors, EN 61169-24 compliant, spring clips of tin plated phosphor bronze
- Die-cast housing with high quality (CuSn) coating
- Meets EN 50083-2, EN 60728-4

AFC 1241 - 4 way tap

Art. No. 343135

EAN Number
5702663431355



AFC 1661 - 6 way tap

Art. No. 343137

EAN Number
5702663431379



AFC 1641 - 4 way tap

Art. No. 343136

EAN Number
5702663431362



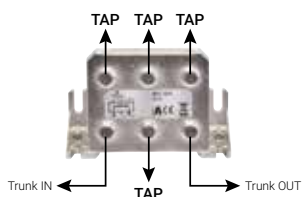
AFC 1681 - 8 way tap

Art. No. 343138

EAN Number
5702663431386



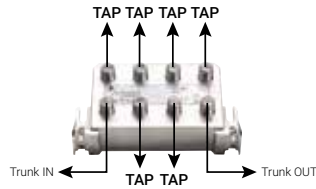
4-way tap



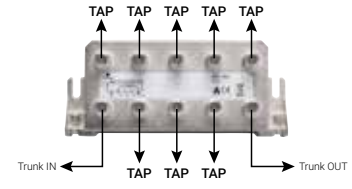
TRIAx® Platinum taps

frequency range 5...1200 MHz

6-way tap



8-way tap



Type:	AFC 1241 4 way tap	AFC 1641 4 way tap	AFC 1661 6 way tap	AFC 1681 8 way tap
Art. No.	343135	343136	343137	343138
SHIELDING				
Shielding efficiency VHF/UHF	> 110dB	> 110dB	> 110dB	> 110dB
FREQUENCY				
Frequency range	5...1218MHz	5...1218MHz	5...1218MHz	5...1218MHz
LOSS				
Insertion loss (in-out) 5-40 MHz	4.6 ±0.5dB	2.5 ±0.5dB	6.0 ± 0.5dB	8.0 ±0.5dB
Insertion loss (in-out) 40-470 MHz	4.6 ±0.5dB	2.5 ±0.5dB	6.0 ±0.5dB	8.0 ±0.7dB
Insertion loss (in-out) 470-860 MHz	4.6 ±1.0dB	3.0 ±0.6dB	6.0 ±1.0dB	8.0 ±1.0dB
Insertion loss (in-out) 860-1000 MHz	4.6 ±1.2dB	3.0 ±0.7dB	6.0 ±1.2dB	8.0 ±1.2dB
Insertion loss (in-out) 1000-1200 MHz	4.6 ±2.0dB	3.0 ±1.5dB	6.0 ±2.0dB	8.0 ±2.0dB
Tap loss (in-tap) 5-40 MHz	12 ± 1dB	16.5 ± 1dB	16 ± 1dB	16 ± 1dB
Tap loss (in-tap) 40-470 MHz	12 ± 1dB	16.5 ± 1dB	16 ± 1dB	16 ± 1dB
Tap loss (in-tap) 470-860 MHz	12 ± 1dB	16.5 ± 1dB	16 ± 1dB	16 ± 1dB
Tap loss (in-tap) 860-1000 MHz	12 ± 1.2dB	16.5 ± 1.2dB	16 ± 1.2dB	16 ± 1.2dB
Tap loss (in-tap) 1000-1200 MHz	12 ± 2dB	16.5 ± 2dB	16 ± 2dB	16 ± 2dB
ISOLATION				
Isolation (out-tap) 5-40 MHz	30dB	32dB	30dB	30dB
Isolation (out-tap) 40-470 MHz	26dB	28dB	30dB	26dB
Isolation (out-tap) 470-860 MHz	26dB	26dB	26dB	25dB
Isolation (out-tap) 860-1000 MHz	24dB	25dB	26dB	24dB
Isolation (out-tap) 1000-1200 MHz	20dB	25dB	23dB	23dB
Isolation (tap-tap) 5-40 MHz	38dB	40dB	40dB	40dB
Isolation (tap-tap) 40-470 MHz	38dB	40dB	40dB	36dB
Isolation (tap-tap) 470-860 MHz	32dB	36dB	36dB	35dB
Isolation (tap-tap) 860-1000 MHz	30dB	30dB	32dB	30dB
Isolation (tap-tap) 1000-1200 MHz	28dB	30dB	32dB	30dB
RETURN LOSS				
Return loss (in-out) 5-40 MHz	20dB	20dB	20dB	20dB
Return loss (in-out) 40-470 MHz	18dB	18dB	18dB	18dB
Return loss (in-out) 470-860 MHz	18dB	16dB	16dB	16dB
Return loss (in-out) 860-1000 MHz	16dB	16dB	16dB	16dB
Return loss (in-out) 1000-1200 MHz	12dB	12dB	12dB	12dB
Return loss (tap) 5-40 MHz	20dB	20dB	20dB	20dB
Return loss (tap) 40-470 MHz	18dB	18dB	18dB	18dB
Return loss (tap) 470-860 MHz	16dB	16dB	16dB	16dB
Return loss (tap) 860-1000 MHz	16dB	16dB	16dB	16dB
Return loss (tap) 1000-1200 MHz	12dB	12dB	12dB	12dB
ELECTRICAL				
Impedance	75Ω	75Ω	75Ω	75Ω
OPERATIONAL				
Certification	CE, RoHS, EN 60728-4			
DC Passthrough	NO - DC blocked at inner conductor			
DOCSIS	3.1	3.1	3.1	3.1
EMC class	A +10dB	A +10dB	A +10dB	A +10dB
CONNECTORS				
Connector Type	F-female (IEC 61 169-24)			
Number of inputs	1	1	1	1
Number of outputs	1	1	1	1
Number of taps	4	4	6	8
MECHANICAL				
Product Depth	40.3mm	40.3mm	40.3mm	40.3mm
Product Width	91mm	91mm	135mm	135mm
Product Height	60.9mm	60.9mm	61.1mm	61.1mm
Main Material	Zinc Die-casting CuSn plated			
Packing QTY	1	1	1	1
Net Weight	0,200kg	0,200kg	0,300kg	0,310kg

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® Gold 1.0 GHz splitters

for indoor CATV, SMATV, MATV distribution networks



TERRESTRIAL
RECEPTION

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CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
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Common Features – ACS Splitter series

Excellent performance/price relation for use in all coaxial TV distribution networks without DC line feeding.

- All round performance for use in CATV, SMATV, MATV
- Frequency range 5 MHz up to 1.0 GHz
- All ports AC/DC blocked at inner conductor

- High shielding of 110 dB
 - Return loss Grade 2 (>18dB)
 - F- female connectors, EN 61169-24 compliant, spring clips of tin plated phosphor bronze
 - Die-cast housing with tin (Sn) coating
 - Meets EN 50083-2 and EN 60728-4
- More data on our website – www.TRIAX.com

ACS 2 - 2 way splitter

Art. No. 343242

EAN Number
5702663432420



ACS 6 - 6 way splitter

Art. No. 343246

EAN Number
5702663432468



ACS 3 - 3 way splitter

Art. No. 343243

EAN Number
5702663432437



ACS 8 - 8 way splitter

Art. No. 343248

EAN Number
5702663432482



ACS 4 - 4 way splitter

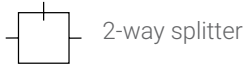
Art. No. 343244

EAN Number
5702663432444



TRIAX® Gold splitters

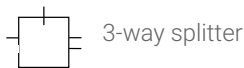
frequency range 5...1000 MHz



2-way splitter



6-way splitter



3-way splitter



8-way splitter



4-way splitter

Type:	ACS 2 2 way splitter	ACS 3 3 way splitter	ACS 4 4 way splitter	ACS 6 6 way splitter	ACS 8 8 way splitter
Art. no.	343242	343243	343244	343246	343248
FREQUENCY					
Frequency range	5...1000MHz	5...1000MHz	5...1000MHz	5...1000MHz	5...1000MHz
SHIELDING					
Shielding efficiency VHF/UHF	> 110dB	> 110dB	> 110dB	> 110dB	> 110dB
LOSS					
Tap loss (in-tap) 5-40 MHz	3.5dB	6.0dB	7.0dB	10.0dB	10.5dB
Tap loss (in-tap) 40-470 MHz	3.6dB	5.8dB	7.5dB	10.2dB	10.5dB
Tap loss (in-tap) 470-860 MHz	3.6dB	6.5dB	8.2dB	10.5dB	12.3dB
Tap loss (in-tap) 860-1000 MHz	4.0dB	6.5dB	8.2dB	11.5dB	12.8dB
ISOLATION					
Isolation (tap-tap) 5-40 MHz	30dB	25dB	27dB	25dB	25dB
Isolation (tap-tap) 40-470 MHz	32dB	30dB	30dB	26dB	26dB
Isolation (tap-tap) 470-860 MHz	28dB	24dB	26dB	26dB	26dB
Isolation (tap-tap) 860-1000 MHz	28dB	23dB	25dB	24dB	24dB
RETURN LOSS					
Return loss (in-out) 5-40 MHz	22dB	21dB	20dB	20dB	20dB
Return loss (in-out) 40-470 MHz	21dB	20dB	20dB	19dB	19dB
Return loss (in-out) 470-860 MHz	21dB	20dB	20dB	18dB	18dB
Return loss (in-out) 860-1000 MHz	20dB	20dB	18dB	17dB	17dB
Return loss (tap) 5-40 MHz	22dB	21dB	20dB	20dB	20dB
Return loss (tap) 40-470 MHz	21dB	20dB	20dB	19dB	19dB
Return loss (tap) 470-860 MHz	21dB	20dB	20dB	18dB	18dB
Return loss (tap) 860-1000 MHz	20dB	20dB	18dB	17dB	17dB
ELECTRICAL					
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL					
Screening Efficiency	Class A	Class A	Class A	Class A	Class A
CONNECTORS					
Connector Type	F-female	F-female	F-female	F-female	F-female
Number of inputs	1	1	1	1	1
Number of outputs	2	3	4	6	8
MECHANICAL					
Product Depth	16mm	16mm	16mm	16mm	16mm
Product Height	50.5mm	50.5mm	50.5mm	57.2mm	57.2mm
Product Width	57.2mm	75.1mm	75.1mm	118.0mm	118.0mm
Bracket (optional)	1x ACB-S	1x ACB-M	1x ACB-M	1x ACB-XL	1x ACB-XL
	Art No 343232	Art No 343233	Art No 343233	Art No 343235	Art No 343235
Main Material	Zinc die-casting bright tin plated				
Packing QTY	1	1	1	1	1
Net Weight	0.040kg	0.050kg	0.062kg	0.120kg	0.130kg

TERRESTRIAL
RECEPTION

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& FIBRE
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CABLE TV
(CATV)

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CAS SYSTEM
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CABLES &
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OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

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TRIAX® Gold 1.0 GHz splitters

for indoor SMATV / MATV distribution networks



TERRESTRIAL
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TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common Features – ACV Splitter series

Excellent performance/price relation for use in all coaxial TV distribution networks without DC line feeding.

- All round performance for use in CATV, SMATV, MATV
- Frequency range 5 MHz up to 1.0 GHz
- All ports AC/DC blocked at inner conductor

- High shielding of 110 dB
 - Return loss Grade 2 (>18dB)
 - F- female connectors, EN 61169-24 compliant, spring clips of tin plated phosphor bronze
 - Die-cast housing with tin (Sn) coating
 - Meets EN 50083-2 and EN 60728-4
- More data on our website – www.TRIAX.com

ACV 4 - 4 way splitter

Art. No. 343252

EAN Number
5702663432529



ACV 12 - 12 way splitter

Art. No. 343255

EAN Number
5702663432550



ACV 6 - 6 way splitter

Art. No. 343253

EAN Number
5702663432536



ACV 16 - 16 way splitter

Art. No. 343256

EAN Number
5702663432567



ACV 8 - 8 way splitter

Art. No. 343254

EAN Number
5702663432543

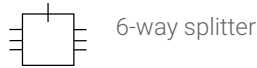


TRIAX® Gold splitters

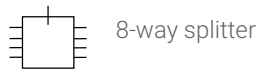
frequency range 5...1000 MHz



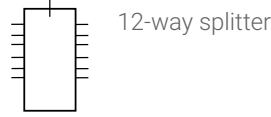
4-way splitter



6-way splitter



8-way splitter



12-way splitter



16-way splitter

Type:	ACV 4 4 way splitter	ACV 6 6 way splitter	ACV 8 8 way splitter	ACV 12 12 way splitter	ACV 16 16 way splitter
Art. No.	343252	343253	343254	343255	343256
FREQUENCY					
Frequency range	5...1000MHz	5...1000MHz	5...1000MHz	5...1000MHz	5...1000MHz
SHIELDING					
Shielding efficiency VHF/UHF	> 110dB	> 110dB	> 110dB	> 110dB	> 110dB
LOSS					
Tap loss (in-tap) 5-40 MHz	12.3dB	14.5dB	6.8dB	9.3dB	10.2dB
Tap loss (in-tap) 40-470 MHz	12.5dB	14.8dB	7.2dB	9.8dB	10.7dB
Tap loss (in-tap) 470-860 MHz	14.5dB	16.2dB	8.0dB	10.7dB	11.8dB
Tap loss (in-tap) 860-1000 MHz	14.5dB	16.2dB	8.2dB	11.2dB	12.2dB
ISOLATION					
Isolation (tap-tap) 5-40 MHz	26dB	25dB	27dB	27dB	27dB
Isolation (tap-tap) 40-470 MHz	26dB	26dB	30dB	28dB	28dB
Isolation (tap-tap) 470-860 MHz	23dB	23dB	27dB	27dB	27dB
Isolation (tap-tap) 860-1000 MHz	23dB	23dB	27dB	24dB	24dB
RETURN LOSS					
Return loss (in-out) 5-40 MHz	17dB	16dB	22dB	20dB	20dB
Return loss (in-out) 40-470 MHz	20dB	18dB	22dB	22dB	22dB
Return loss (in-out) 470-860 MHz	17dB	17dB	22dB	20dB	20dB
Return loss (in-out) 860-1000 MHz	17dB	17dB	22dB	20dB	20dB
ELECTRICAL					
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL					
Certification	CE, RoHS, EN 60728-4				
DC Passthrough	NO - DC blocked at inner conductor				
CONNECTORS					
Connector Type	F-female				
Number of inputs	1	1	1	1	1
Number of outputs	4	6	8	12	16
MECHANICAL					
Product Depth	27.0mm	34.5mm	34.5mm	78.0mm	78.0mm
Product Width	70.5mm	92.5mm	114.5mm	240.0mm	240.0mm
Product Height	34.5mm	34.5mm	34.5mm	44.0mm	44.0mm
Bracket (optional)	2x ACB-V	2x ACB-V	2x ACB-V		
	Art No 343236	Art No 343236	Art No 343236		
Main Material	Zinc die-casting, bright tin plated			Alu alloy die cast housing	
Packing QTY	1	1	1	1	1
Net Weight	0,150kg	0,200kg	0,230kg	0,540kg	0,560kg

TERRESTRIAL
RECEPTION

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CABLE TV
(CATV)

HEADENDS
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CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® Gold 1.0 GHz, 1-way tap

for indoor SMATV / MATV distribution networks



TERRESTRIAL
RECEPTION

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& FIBRE
RECEPTION

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SURVEILLANCE
(CCTV)

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TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common Features – ACT Taps series

Excellent performance/price relation for use in all coaxial TV distribution networks without DC line feeding.

- All round performance for use in CATV, SMATV, MATV
- Frequency range 5 MHz up to 1.0 GHz
- All ports AC/DC blocked at inner conductor

- High shielding of 110 dB
 - Return loss Grade 2 (>18dB)
 - F- female connectors, EN 61169-24 compliant, spring clips of tin plated phosphor bronze
 - Die-cast housing with tin (Sn) coating
 - Meets EN 50083-2 and EN 60728-4
- More data on our website – www.TRIAX.com



ACT 1-6 - 1 way tap

Art. No. 343258

EAN Number
5702663432581



ACT 1-16 - 1 way tap

Art. No. 343261

EAN Number
5702663432611



ACT 1-8 - 1 way tap

Art. No. 343259

EAN Number
5702663432598



ACT 1-20 - 1 way tap

Art. No. 343262

EAN Number
5702663432628



ACT 1-12 - 1 way tap

Art. No. 343260

EAN Number
5702663432604



ACT 1-24 - 1 way tap

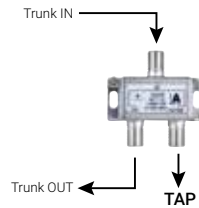
Art. No. 343263

EAN Number
5702663432635

TRIAX® Gold taps

frequency range 5...1000 MHz

1-way tap



Type:	ACT 1-6	ACT 1-8	ACT 1-12	ACT 1-16	ACT 1-20	ACT 1-24
	1 way tap	1 way tap	1 way tap	1 way tap	1 way tap	1 way tap
Art. No.	343258	343259	343260	343261	343262	343263
FREQUENCY						
Frequency range	5...1000MHz	5...1000MHz	5...1000MHz	5...1000MHz	5...1000MHz	5...1000MHz
SHIELDING						
Shielding efficiency VHF/UHF	> 110dB	> 110dB	> 110dB	> 110dB	> 110dB	> 110dB
LOSS						
Insertion loss (in-out) 5-40 MHz	2.8dB	1.8dB	0.6dB	0.8dB	0.8dB	0.8dB
Insertion loss (in-out) 40-470 MHz	2.6dB	2.0dB	0.8dB	0.8dB	0.8dB	0.8dB
Insertion loss (in-out) 470-860 MHz	2.8dB	2.1dB	1.0dB	1.0dB	1.0dB	1.0dB
Insertion loss (in-out) 860-1000 MHz	3.0dB	2.2dB	1.0dB	1.0dB	1.0dB	1.2dB
Tap loss (in-tap) 5-40 MHz	6.5dB	8.5dB	12.5dB	16.0dB	20.0dB	24.0dB
Tap loss (in-tap) 40-470 MHz	6.0dB	8.5dB	12.0dB	16.0dB	20.0dB	24.0dB
Tap loss (in-tap) 470-860 MHz	6.0dB	8.5dB	12.0dB	16.0dB	20.0dB	24.0dB
Tap loss (in-tap) 860-1000 MHz	6.0dB	8.5dB	12.5dB	16.0dB	20.0dB	24.0dB
ISOLATION						
Isolation (out-tap) 5-40 MHz	23dB	30dB	35dB	38dB	45dB	50dB
Isolation (out-tap) 40-470 MHz	23dB	32dB	32dB	36dB	36dB	42dB
Isolation (out-tap) 470-860 MHz	21dB	23dB	26dB	32dB	32dB	36dB
Isolation (out-tap) 860-1000 MHz	21dB	23dB	26dB	27dB	30dB	35dB
RETURN LOSS						
Return loss (in-out) 5-40 MHz	21dB	21dB	21dB	21dB	22dB	22dB
Return loss (in-out) 40-470 MHz	20dB	20dB	20dB	20dB	20dB	21dB
Return loss (in-out) 470-860 MHz	20dB	20dB	20dB	20dB	20dB	21dB
Return loss (in-out) 860-1000 MHz	17dB	17dB	17dB	17dB	17dB	17dB
Return loss (tap) 5-40 MHz	21dB	21dB	21dB	21dB	22dB	22dB
Return loss (tap) 40-470 MHz	20dB	20dB	20dB	20dB	20dB	21dB
Return loss (tap) 470-860 MHz	20dB	20dB	20dB	20dB	20dB	21dB
Return loss (tap) 860-1000 MHz	17dB	17dB	17dB	17dB	17dB	17dB
ELECTRICAL						
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL						
Certification	CE, RoHS, EN 60728-4					
DC Passthrough	NO - DC blocked at inner conductor					
CONNECTORS						
Connector Type	F-female	F-female	F-female	F-female	F-female	F-female
Number of inputs	1	1	1	1	1	1
Number of outputs	1	1	1	1	1	1
Number of taps	1	1	1	1	1	1
MECHANICAL						
Product Depth	16 mm	16 mm	16 mm	16 mm	16 mm	16 mm
Product Height	50 mm	50 mm	50 mm	50 mm	50 mm	50 mm
Product Width	52 mm	52 mm	52 mm	52 mm	52 mm	52 mm
Bracket (optional)	1x ACB-S - Art No 343232					
Main Material	Zinc die-casting, bright tin plated					
Packing QTY	1	1	1	1	1	1
Extra high bracket	Optional extra					
Net Weight	0,050kg	0,050kg	0,050kg	0,050kg	0,050kg	0,050kg

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® Gold 1.0 GHz, 2-way taps

for indoor SMATV / MATV distribution networks



- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
- CABLE TV (CATV)
- HEADENDS CAS SYSTEM MODULATORS
- CABLES & CONNECTORS
- OUTLETS TAPS & SPLITTER
- INHOUSE CONNECTIVITY
- SURVEILLANCE (CCTV)
- INSTRUMENTS TOOLS & CABINETS
- TECHNICAL APPENDIX



Common Features – ACT Taps series

Excellent performance/price relation for use in all coaxial TV distribution networks without DC line feeding.

- All round performance for use in CATV, SMATV, MATV
- Frequency range 5 MHz up to 1.0 GHz
- All ports AC/DC blocked at inner conductor

- High shielding of 110 dB
- Return loss Grade 2 (>18dB)
- F- female connectors, EN 61169-24 compliant, spring clips of tin plated phosphor bronze
- Die-cast housing with tin (Sn) coating
- Meets EN 50083-2 and EN 60728-4
- More data on our website – www.TRIAX.com

ACT 2-8 - 2 way tap

Art. No. 343265
EAN Number 5702663432659



ACT 2-16 - 2 way tap

Art. No. 343268
EAN Number 5702663432680



ACT 2-10 - 2 way tap

Art. No. 343266
EAN Number 5702663432666



ACT 2-20 - 2 way tap

Art. No. 343269
EAN Number 5702663432697



ACT 2-12 - 2 way tap

Art. No. 343267
EAN Number 5702663432673



ACT 2-24 - 2 way tap

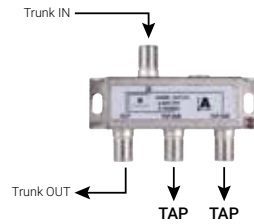
Art. No. 343270
EAN Number 5702663432703



TRIAX® Gold taps

frequency range 5...1000 MHz

2-way tap



Type:	ACT 2-8	ACT 2-10	ACT 2-12	ACT 2-16	ACT 2-20	ACT 2-24
2 way tap	2 way tap	2 way tap	2 way tap	2 way tap	2 way tap	2 way tap
Art. No.	343265	343266	343267	343268	343269	343270
FREQUENCY						
Frequency range	5...1000MHz	5...1000MHz	5...1000MHz	5...1000MHz	5...1000MHz	5...1000MHz
SHIELDING						
Shielding efficiency VHF/UHF	> 110dB	> 110dB	> 110dB	> 110dB	> 110dB	> 110dB
LOSS						
Insertion loss (in-out) 5-40 MHz	3.5dB	2.6dB	1.8dB	0.8dB	0.8dB	0.8dB
Insertion loss (in-out) 40-470 MHz	3.6dB	2.7dB	1.8dB	0.8dB	0.6dB	0.6dB
Insertion loss (in-out) 470-860 MHz	4.0dB	3.2dB	2.3dB	1.2dB	1.0dB	1.0dB
Insertion loss (in-out) 860-1000 MHz	4.2dB	3.4dB	2.3dB	1.5dB	1.2dB	1.2dB
Tap loss (in-tap) 5-40 MHz	8.0dB	10.0dB	12.0dB	16.0dB	20.0dB	24.0dB
Tap loss (in-tap) 40-470 MHz	8.0dB	10.0dB	12.0dB	16.0dB	20.0dB	24.0dB
Tap loss (in-tap) 470-860 MHz	8.0dB	10.0dB	12.0dB	16.0dB	20.0dB	24.0dB
Tap loss (in-tap) 860-1000 MHz	8.0dB	10.0dB	12.0dB	16.0dB	20.0dB	24.0dB
ISOLATION						
Isolation (out-tap) 5-40 MHz	30dB	25dB	30dB	34dB	40dB	46dB
Isolation (out-tap) 40-470 MHz	28dB	26dB	28dB	32dB	36dB	42dB
Isolation (out-tap) 470-860 MHz	26dB	23dB	26dB	26dB	32dB	34dB
Isolation (out-tap) 860-1000 MHz	25dB	22dB	25dB	25dB	30dB	30dB
Isolation (tap-tap) 5-40 MHz	25dB	30dB	30dB	30dB	32dB	32dB
Isolation (tap-tap) 40-470 MHz	26dB	30dB	30dB	30dB	30dB	30dB
Isolation (tap-tap) 470-860 MHz	25dB	27dB	27dB	27dB	27dB	27dB
Isolation (tap-tap) 860-1000 MHz	24dB	24dB	25dB	25dB	25dB	25dB
RETURN LOSS						
Return loss (in-out) 5-40 MHz	22dB	21dB	21dB	21dB	21dB	21dB
Return loss (in-out) 40-470 MHz	21dB	20dB	20dB	20dB	20dB	20dB
Return loss (in-out) 470-860 MHz	20dB	20dB	20dB	20dB	20dB	20dB
Return loss (in-out) 860-1000 MHz	17dB	17dB	17dB	17dB	17dB	17dB
Return loss (tap) 5-40 MHz	22dB	21dB	21dB	21dB	21dB	21dB
Return loss (tap) 40-470 MHz	21dB	20dB	20dB	20dB	20dB	20dB
Return loss (tap) 470-860 MHz	20dB	20dB	20dB	20dB	20dB	20dB
Return loss (tap) 860-1000 MHz	17dB	17dB	17dB	17dB	17dB	17dB
ELECTRICAL						
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL						
Certification	CE, RoHS, EN 60728-4					
DC Passthrough	NO - DC blocked at inner conductor					
CONNECTORS						
Connector Type	F-female	F-female	F-female	F-female	F-female	F-female
Number of inputs	1	1	1	1	1	1
Number of outputs	1	1	1	1	1	1
Number of taps	2	2	2	2	2	2
MECHANICAL						
Product Depth	16 mm	16 mm	16 mm	16 mm	16 mm	16 mm
Product Width	74 mm	74 mm	74 mm	74 mm	74 mm	74 mm
Product Height	50 mm	50 mm	50 mm	50 mm	50 mm	50 mm
Bracket (optional)	1x ACB-M / Art No 343233					
Main Material	Zinc die-casting, bright tin plated					
Packing QTY	1	1	1	1	1	1
Net Weight	0,050kg	0,050kg	0,050kg	0,050kg	0,050kg	0,050kg

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
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OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
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TECHNICAL
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TRIAX® Gold 1.0 GHz, 4-way taps

for indoor SMATV / MATV distribution networks



TERRESTRIAL
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& FIBRE
RECEPTION

CABLE TV
(CATV)

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MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common Features – ACT Taps series

Excellent performance/price relation for use in all coaxial TV distribution networks without DC line feeding.

- All round performance for use in CATV, SMATV, MATV
- Frequency range 5 MHz up to 1.0 GHz
- All ports AC/DC blocked at inner conductor

- High shielding of 110 dB
 - Return loss Grade 2 (>18dB)
 - F- female connectors, EN 61169-24 compliant, spring clips of tin plated phosphor bronze
 - Die-cast housing with tin (Sn) coating
 - Meets EN 50083-2 and EN 60728-4
- More data on our website – www.TRIAX.com

ACT 4-10 - 4 way tap

Art. No. 343279

EAN Number
5702663432796



ACT 4-20 - 4 way tap

Art. No. 343282

EAN Number
5702663432826



ACT 4-12 - 4 way tap

Art. No. 343280

EAN Number
5702663432802



ACT 4-24 - 4 way tap

Art. No. 343283

EAN Number
5702663432833



ACT 4-16 - 4 way tap

Art. No. 343281

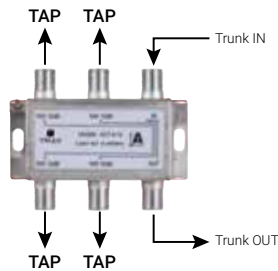
EAN Number
5702663432819



TRIAX® Gold taps

frequency range 5...1000 MHz

4-way tap



Type:	ACT 4-10	ACT 4-12	ACT 4-16	ACT 4-20	ACT 4-24
Art. No.	343279	343280	343281	343282	343283
FREQUENCY					
Frequency range	5...1000MHz	5...1000MHz	5...1000MHz	5...1000MHz	5...1000MHz
SHIELDING					
Shielding efficiency VHF/UHF	> 110dB	> 110dB	> 110dB	> 110dB	> 110dB
LOSS					
Insertion loss (in-out) 5-40 MHz	3.5dB	3.5dB	1.8dB	1.0dB	1.0dB
Insertion loss (in-out) 40-470 MHz	3.6dB	3.6dB	1.8dB	1.1dB	0.8dB
Insertion loss (in-out) 470-860 MHz	4.0dB	4.0dB	2.4dB	1.3dB	1.0dB
Insertion loss (in-out) 860-1000 MHz	4.5dB	4.5dB	2.5dB	1.5dB	1.2dB
Tap loss (in-tap) 5-40 MHz	10.0dB	12.0dB	16.0dB	20.0dB	24.0dB
Tap loss (in-tap) 40-470 MHz	10.0dB	12.0dB	16.0dB	20.0dB	24.0dB
Tap loss (in-tap) 470-860 MHz	10.2dB	12.5dB	16.5dB	20.5dB	24.5dB
Tap loss (in-tap) 860-1000 MHz	11.0dB	12.5dB	16.5dB	20.5dB	24.5dB
ISOLATION					
Isolation (out-tap) 5-40 MHz	30dB	26dB	36dB	40dB	45dB
Isolation (out-tap) 40-470 MHz	28dB	26dB	32dB	33dB	33dB
Isolation (out-tap) 470-860 MHz	26dB	25dB	28dB	28dB	33dB
Isolation (out-tap) 860-1000 MHz	25dB	22dB	27dB	27dB	30dB
Isolation (tap-tap) 5-40 MHz	28dB	30dB	30dB	30dB	30dB
Isolation (tap-tap) 40-470 MHz	27dB	28dB	28dB	28dB	28dB
Isolation (tap-tap) 470-860 MHz	27dB	26dB	26dB	26dB	26dB
Isolation (tap-tap) 860-1000 MHz	25dB	25dB	25dB	25dB	25dB
RETURN LOSS					
Return loss (in-out) 5-40 MHz	21dB	21dB	22dB	22dB	22dB
Return loss (in-out) 40-470 MHz	20dB	20dB	20dB	20dB	20dB
Return loss (in-out) 470-860 MHz	18dB	18dB	18dB	18dB	18dB
Return loss (in-out) 860-1000 MHz	17dB	17dB	17dB	17dB	17dB
Return loss (tap) 5-40 MHz	21dB	21dB	22dB	22dB	22dB
Return loss (tap) 40-470 MHz	20dB	20dB	20dB	20dB	20dB
Return loss (tap) 470-860 MHz	18dB	18dB	18dB	18dB	18dB
Return loss (tap) 860-1000 MHz	17dB	17dB	17dB	17dB	17dB
ELECTRICAL					
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL					
Certification	CE, RoHS, EN 60728-4				
DC Passthrough	NO - DC blocked at inner conductor				
CONNECTORS					
Connector Type	F-female	F-female	F-female	F-female	F-female
Number of inputs	1	1	1	1	1
Number of outputs	1	1	1	1	1
Number of taps	4	4	4	4	4
MECHANICAL					
Product Depth	16 mm	16 mm	16 mm	16 mm	16 mm
Product Width	74 mm	74 mm	74 mm	74 mm	74 mm
Product Height	55 mm	55 mm	55 mm	55 mm	55 mm
Bracket (optional)	1x ACB-L / Art No 343234				
Main Material	Zinc die-casting, bright tin plated				
Packing QTY	1	1	1	1	1
Net Weight	0,080kg	0,080kg	0,080kg	0,080kg	0,080kg

TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

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TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® Gold 1.0 GHz, 6-way taps

for indoor SMATV / MATV distribution networks



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CABINETS

TECHNICAL
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Common Features – ACT Taps series

Excellent performance/price relation for use in all coaxial TV distribution networks without DC line feeding.

- All round performance for use in CATV, SMATV, MATV
- Frequency range 5 MHz up to 1.0 GHz
- All ports AC/DC blocked at inner conductor

- High shielding of 110 dB
 - Return loss Grade 2 (>18dB)
 - F- female connectors, EN 61169-24 compliant, spring clips of tin plated phosphor bronze
 - Die-cast housing with tin (Sn) coating
 - Meets EN 50083-2 and EN 60728-4
- More data on our website – www.TRIAX.com

ACT 6-12 - 6 way tap

Art. No. 343285

EAN Number
5702663432857



ACT 6-20 - 6 way tap

Art. No. 343287

EAN Number
5702663432871



ACT 6-16 - 6 way tap

Art. No. 343286

EAN Number
5702663432864



ACT 6-24 - 6 way tap

Art. No. 343288

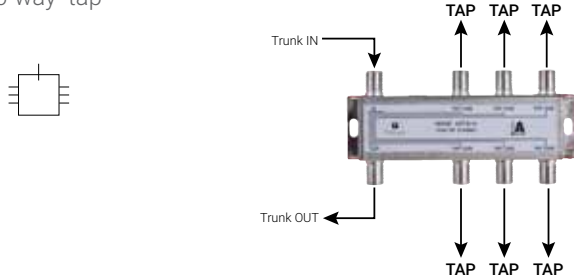
EAN Number
5702663432888



TRIAX® Gold taps

frequency range 5...1000 MHz

6-way tap



Type:	ACT 6-12	ACT 6-16	ACT 6-20	ACT 6-24
6 way tap	6 way tap	6 way tap	6 way tap	6 way tap
Art. No.	343285	343286	343287	343288
FREQUENCY				
Frequency range	5...1000MHz	5...1000MHz	5...1000MHz	5...1000MHz
SHIELDING				
Shielding efficiency VHF/UHF	> 110dB	> 110dB	> 110dB	> 110dB
LOSS				
Insertion loss (in-out) 5-40 MHz	4.5dB	2.5dB	1.5dB	0.8dB
Insertion loss (in-out) 40-470 MHz	4.3dB	2.7dB	1.3dB	0.8dB
Insertion loss (in-out) 470-860 MHz	4.5dB	3.0dB	2.0dB	1.3dB
Insertion loss (in-out) 860-1000 MHz	4.5dB	3.5dB	2.5dB	1.5dB
Tap loss (in-tap) 5-40 MHz	12.0dB	16.0dB	20.0dB	24.0dB
Tap loss (in-tap) 40-470 MHz	12.0dB	16.0dB	20.0dB	24.0dB
Tap loss (in-tap) 470-860 MHz	13.0dB	16.5dB	20.5dB	24.5dB
Tap loss (in-tap) 860-1000 MHz	13.0dB	16.5dB	20.5dB	24.5dB
ISOLATION				
Isolation (out-tap) 5-40 MHz	28dB	25dB	30dB	33dB
Isolation (out-tap) 40-470 MHz	26dB	26dB	32dB	33dB
Isolation (out-tap) 470-860 MHz	23dB	26dB	30dB	30dB
Isolation (out-tap) 860-1000 MHz	22dB	24dB	27dB	29dB
Isolation (tap-tap) 5-40 MHz	23dB	24dB	24dB	24dB
Isolation (tap-tap) 40-470 MHz	24dB	25dB	25dB	25dB
Isolation (tap-tap) 470-860 MHz	22dB	22dB	24dB	24dB
Isolation (tap-tap) 860-1000 MHz	21dB	21dB	22dB	22dB
RETURN LOSS				
Return loss (in-out) 5-40 MHz	18dB	20dB	18dB	18dB
Return loss (in-out) 40-470 MHz	20dB	21dB	21dB	21dB
Return loss (in-out) 470-860 MHz	18dB	18dB	18dB	18dB
Return loss (in-out) 860-1000 MHz	16dB	17dB	17dB	17dB
Return loss (tap) 5-40 MHz	21dB	22dB	22dB	22dB
Return loss (tap) 40-470 MHz	20dB	21dB	21dB	21dB
Return loss (tap) 470-860 MHz	18dB	18dB	18dB	18dB
Return loss (tap) 860-1000 MHz	16dB	17dB	17dB	17dB
ELECTRICAL				
Impedance	75Ω	75Ω	75Ω	75Ω
OPERATIONAL				
Certification	CE, RoHS, EN 60728-4			
DC Passthrough	NO - DC blocked at inner conductor			
CONNECTORS				
Connector Type	F-female	F-female	F-female	F-female
Number of inputs	1	1	1	1
Number of outputs	1	1	1	1
Number of taps	6	6	6	6
MECHANICAL				
Product Depth	16 mm	16 mm	16 mm	16 mm
Product Width	118 mm	118 mm	118 mm	118 mm
Product Height	55 mm	55 mm	55 mm	55 mm
Bracket (optional)	1x ACB-XL / Art No 343235			
Main Material	Zinc die-casting, bright tin plated			
Packing QTY	1	1	1	1
Net Weight	0,130kg	0,130kg	0,130kg	0,130kg

TERRESTRIAL
RECEPTION

SATELLITE
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OUTLETS
TAPS & SPLITTER

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CONNECTIVITY

SURVEILLANCE
(CCTV)

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TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® Gold 1.0 GHz, 8-way & multi-taps

for indoor SMATV / MATV distribution networks



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RECEPTION

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(CCTV)

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TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common Features – ACT Taps series

Excellent performance/price relation for use in all coaxial TV distribution networks without DC line feeding.

- All round performance for use in CATV, SMATV, MATV
- Frequency range 5 MHz up to 1.0 GHz
- All ports AC/DC blocked at inner conductor

- High shielding of 110 dB
 - Return loss Grade 2 (>18dB)
 - F- female connectors, EN 61169-24 compliant, spring clips of tin plated phosphor bronze
 - Die-cast housing with tin (Sn) coating
 - Meets EN 50083-2 and EN 60728-4
- More data on our website – www.TRIAX.com



ACT 8-16 - 8 way tap

Art. No. 343289

EAN Number
5702663432895



ACT 12 M - 12 way tap

Art. No. 343292

EAN Number
5702663432925



ACT 8-20 - 8 way tap

Art. No. 343290

EAN Number
5702663432901



ACT 16 M - 16 way tap

Art. No. 343293

EAN Number
5702663432932



ACT 8-24 - 8 way tap

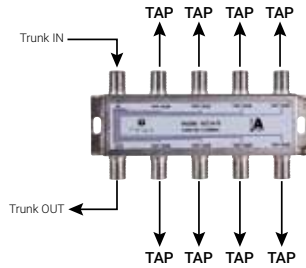
Art. No. 343291

EAN Number
5702663432918

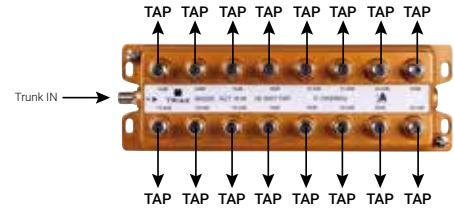
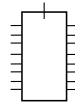
TRIAX® Gold taps

frequency range 5...1000 MHz

8-way tap



Multi tap



Type:	ACT 8-1	ACT 8-20	ACT 8-24	ACT 12 M	ACT 16 M
	8 way tap	8 way tap	8 way tap	12 way tap	16 way tap
Art. No.	343289	343290	343291	343292	343293
FREQUENCY					
Frequency range	5...1000MHz	5...1000MHz	5...1000MHz	5...1000MHz	5...1000MHz
SHIELDING					
Shielding efficiency VHF/UHF	> 110dB	> 110dB	> 110dB	> 110dB	> 110dB
LOSS					
Insertion loss (in-out) 5-40 MHz	2.8dB	1.5dB	1.0dB		
Insertion loss (in-out) 40-470 MHz	2.8dB	1.3dB	0.8dB		
Insertion loss (in-out) 470-860 MHz	3.0dB	2.0dB	1.3dB		
Insertion loss (in-out) 860-1000 MHz	3.2dB	2.3dB	1.5dB		
Tap loss (in-tap) 5-40 MHz	16.0dB	20.0dB	24.0dB		
Tap loss (in-tap) 40-470 MHz	16.0dB	20.0dB	24.0dB		
Tap loss (in-tap) 470-860 MHz	16.5dB	20.5dB	24.5dB		
Tap loss (in-tap) 860-1000 MHz	16.5dB	20.5dB	24.5dB		
Tap loss (in-tap) 5-1000 MHz				13/13.5/15/15.5/ 16/16.5/18/19/ 19.5/20/21.5/22 dB	13/13.5/15/15.5/ 16/16.5/18/19/ 19.5/20/21.5/ 22.5/23.5/24/ 25/25.5dB
ISOLATION					
Isolation (out-tap) 5-40 MHz	30dB	30dB	35dB		
Isolation (out-tap) 40-470 MHz	28dB	32dB	36dB		
Isolation (out-tap) 470-860 MHz	24dB	26dB	30dB		
Isolation (out-tap) 860-1000 MHz	24dB	26dB	29dB		
Isolation (tap-tap) 5-40 MHz	25dB	26dB	26dB	31dB	31dB
Isolation (tap-tap) 40-470 MHz	26dB	26dB	26dB	31dB	31dB
Isolation (tap-tap) 470-860 MHz	24dB	24dB	26dB	31dB	31dB
Isolation (tap-tap) 860-1000 MHz	24dB	24dB	24dB	28dB	28dB
RETURN LOSS					
Return loss (in-out) 5-40 MHz	19dB	18dB	20dB	20dB	20dB
Return loss (in-out) 40-470 MHz	21dB	21dB	21dB	18dB	18dB
Return loss (in-out) 470-860 MHz	18dB	18dB	18dB	18dB	18dB
Return loss (in-out) 860-1000 MHz	17dB	17dB	17dB	15dB	15dB
Return loss (tap) 5-40 MHz	19dB	18dB	20dB		
Return loss (tap) 40-470 MHz	21dB	21dB	21dB		
Return loss (tap) 470-860 MHz	18dB	18dB	18dB		
Return loss (tap) 860-1000 MHz	17dB	17dB	17dB		
ELECTRICAL					
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL					
Certification	CE, RoHS, EN 60728-4				
DC Passthrough	NO - DC blocked at inner conductor				
CONNECTORS					
Connector Type	F-female	F-female	F-female	F-female	F-female
Number of inputs	1	1	1	1	1
Number of outputs	1	1	1		
Number of taps	8	8	8	12	16
MECHANICAL					
Product Depth	16 mm	16 mm	16 mm	45 mm	45 mm
Product Width	118 mm	118 mm	118 mm	240 mm	240 mm
Product Height	55 mm	55 mm	55 mm	78 mm	78 mm
Bracket (optional)	1x ACB-XL / Art No 343235				
Main Material	Zinc die-casting, bright tin plated			Zinc die-casting, bright tin plated	
Packing QTY	1	1	1	1	1
Net Weight	0,150kg	0,150kg	0,150kg	0,550kg	0,600kg

TERRESTRIAL
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TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

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TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX[®] Silver 2.4 GHz splitters

for SAT-IF, MATV distribution networks



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CABINETS

TECHNICAL
APPENDIX



Common Features – SCS Splitter series

The TRIAX "SILVER" Indoor Splitter and Taps are used in coaxial SAT-IF distribution networks operating with DVB-S/S2 (QPSK, 8PSK) and/or in MATV applications with DTT (COFDM, DAB) signals.

- All outputs of the splitters SCS are DC directed coupled via diodes to the input, the taps SCT pass DC power through the trunk path

- The die-cast enclosures are tin (Sn) coated and the back plates are soldered for very high shielding.
- High shielding of 110 dB
- Return loss Grade 2 (>18dB)
- F- female connectors, EN 61169-24 compliant
- Die-cast housing with tin (Sn) coating
- Meets EN 50083-2 and EN 60728-4

SCS 2 - 2 way splitter

Art. No. 349802

EAN Number
5702663498020



SCS 6 - 6 way splitter

Art. No. 349806

EAN Number
5702663498068



SCS 3 - 3 way splitter

Art. No. 349803

EAN Number
5702663498037



SCS 8 - 8 way splitter

Art. No. 349808

EAN Number
5702663498082



SCS 4 - 4 way splitter

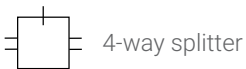
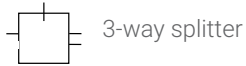
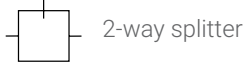
Art. No. 349804

EAN Number
5702663498044



TRIAX[®] Silver splitters

frequency range 5...2400 MHz



Type:	SCS 2 2 way splitter	SCS 3 3 way splitter	SCS 4 4 way splitter	SCS 6 6 way splitter	SCS 8 8 way splitter
Art. No.	349802	349803	349804	349806	349808
FREQUENCY					
Frequency range	5...2400MHz	5...2400MHz	5...2400MHz	5...2400MHz	5...2400MHz
SHIELDING					
Shielding efficiency VHF/UHF	> 110dB	> 110dB	> 110dB	> 110dB	> 110dB
LOSS					
Insertion loss (in-out) 5-40 MHz	4.4dB	6.5dB	8.0dB	10.8dB	11.8dB
Insertion loss (in-out) 40-1000 MHz	4.0dB	7.5dB	8.5dB	11.5dB	13.0dB
Insertion loss (in-out) 1000-2150 MHz	5.5dB	10.0dB	10.5dB	15.5dB	16.5dB
Insertion loss (in-out) 2150-2400 MHz	6.0dB	10.5dB	11.5dB	16.5dB	17.0dB
ISOLATION					
Isolation (tap-tap) 5-40 MHz	22dB	23dB	25dB	25dB	25dB
Isolation (tap-tap) 40-1000 MHz	25dB	22dB	23dB	25dB	23dB
Isolation (tap-tap) 1000-2150 MHz	24dB	23dB	22dB	23dB	23dB
Isolation (tap-tap) 2150-2400 MHz	22dB	23dB	23dB	23dB	23dB
RETURN LOSS					
Return loss (in-out) 5-40 MHz	11.5dB	10.0dB	10.0dB	9.0dB	8.5dB
Return loss (in-out) 40-1000 MHz	15.0dB	12.0dB	11.5dB	13.0dB	11.0dB
Return loss (in-out) 1000-2150 MHz	12.0dB	12.0dB	12.5dB	13.0dB	12.0dB
Return loss (in-out) 2150-2400 MHz	11.0dB	13.0dB	14.0dB	12.0dB	12.0dB
ELECTRICAL					
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL					
Certification	CE, RoHS II				
DC Passthrough	Yes (max. 500mA)				
DC Passthrough	1 output				
CONNECTORS					
Connector Type	F-female	F-female	F-female	F-female	F-female
Number of inputs	1	1	1	1	1
Number of outputs	2	3	4	6	8
MECHANICAL					
Product Depth	16mm	16mm	16mm	16mm	16mm
Product Width	53mm	74mm	74mm	119mm	119mm
Product Height	52mm	56mm	56mm	65mm	65mm
Bracket (optional)	2 x BS-Brackets Small 1-4 T&S (Art.No.342100)				
Main Material	Zinc die-casting, bright tin plated				
Packing QTY	1	1	1	1	1
Net Weight	0,040kg	0,058kg	0,062kg	0,120kg	0,130kg

TERRESTRIAL
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CONNECTORS

OUTLETS
TAPS & SPLITTER

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SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX[®] Silver 2.4 GHz, 1-way taps

for SAT-IF, MATV distribution networks



TERRESTRIAL
RECEPTION

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& FIBRE
RECEPTION

CABLE TV
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MODULATORS

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CONNECTORS

OUTLETS
TAPS &
SPLITTER

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CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common Features – SCT Taps series

The TRIAX "SILVER" Indoor Splitter and Taps are used in coaxial SAT-IF distribution networks operating with DVB-S/S2 (QPSK, 8PSK) and/or in MATV applications with DTT (COFDM, DAB) signals.

- All outputs of the splitters SCS are DC directed coupled via diodes to the input, the taps SCT pass DC power through the trunk path

- The die-cast enclosures are tin (Sn) coated and the back plates are soldered for very high shielding.
- High shielding of 110 dB
- Return loss Grade 2 (>18dB)
- F- female connectors, EN 61169-24 compliant
- Die-cast housing with tin (Sn) coating
- Meets EN 50083-2 and EN 60728-4

SCT 1-8 - 1 way tap

Art. No. 342108

EAN Number
5702663421080



SCT 1-16 - 1 way tap

Art. No. 342116

EAN Number
5702663421165



SCT 1-10 - 1 way tap

Art. No. 342110

EAN Number
5702663421103



SCT 1-20 - 1 way tap

Art. No. 342120

EAN Number
5702663421202



SCT 1-12 - 1 way tap

Art. No. 342112

EAN Number
5702663421127



SCT 1-24 - 1 way tap

Art. No. 342124

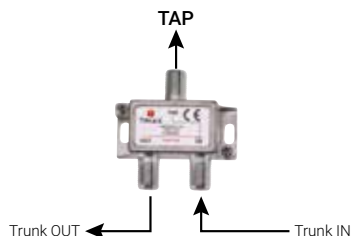
EAN Number
5702663421240



TRIAX[®] Silver taps

frequency range 5...2400 MHz

1-way tap



Type:	SCT 1-8	SCT 1-10	SCT 1-12	SCT 1-16	SCT 1-20	SCT 1-24
Art. No.	342108	342110	342112	342116	342120	342124
FREQUENCY						
Frequency range	5...2400MHz	5...2400MHz	5...2400MHz	5...2400MHz	5...2400MHz	5...2400MHz
SHIELDING						
Shielding efficiency VHF/UHF	> 110dB	> 110dB	> 110dB	> 110dB	> 110dB	> 110dB
LOSS						
Insertion loss (in-out) 5-40 MHz	2.2dB	1.9dB	1.1dB	1.3dB	0.9dB	0.9dB
Insertion loss (in-out) 40-1000 MHz	2.7dB	1.9dB	1.6dB	1.3dB	1.1dB	1.1dB
Insertion loss (in-out) 1000-2150 MHz	3.5dB	2.5dB	2.3dB	1.9dB	1.5dB	1.5dB
Insertion loss (in-out) 2150-2400 MHz	4.5dB	2.7dB	2.3dB	2.1dB	1.7dB	1.7dB
Tap loss (in-tap) 5-40 MHz	8.0 (± 1.0)dB	10.0 (± 1.5)dB	12.0 (± 1.0)dB	16.0 (± 1.5)dB	20.0 (± 1.0)dB	24.0 (± 1.0)dB
Tap loss (in-tap) 40-1000 MHz	8.0 (± 1.0)dB	10.0 (± 1.5)dB	12.0 (± 1.0)dB	16.0 (± 1.5)dB	20.0 (± 1.0)dB	24.0 (± 1.0)dB
Tap loss (in-tap) 1000-2150 MHz	8.0 (± 2.0)dB	10.0 (± 2.0)dB	12.0 (± 2.0)dB	16.0 (± 2.0)dB	20.0 (± 2.0)dB	24.0 (± 2.0)dB
Tap loss (in-tap) 2150-2400 MHz	8.0 (± 2.0)dB	10.0 (± 2.0)dB	12.0 (± 2.0)dB	16.0 (± 2.0)dB	20.0 (± 2.0)dB	24.0 (± 2.0)dB
ISOLATION						
Isolation (out-tap) 5-40 MHz	22dB	25dB	28dB	40dB	45dB	43dB
Isolation (out-tap) 40-1000 MHz	22dB	24dB	25dB	30dB	32dB	34dB
Isolation (out-tap) 1000-2150 MHz	22dB	23dB	25dB	24dB	24dB	30dB
Isolation (out-tap) 2150-2400 MHz	22dB	23dB	23dB	23dB	23dB	29dB
RETURN LOSS						
Return loss (in-out) 5-40 MHz	15.0dB	15.0dB	15.0dB	16.0dB	16.0dB	16.0dB
Return loss (in-out) 40-1000 MHz	15.0dB	15.0dB	15.0dB	16.0dB	15.0dB	16.0dB
Return loss (in-out) 1000-2150 MHz	13.0dB	13.0dB	13.0dB	13.0dB	13.0dB	12.0dB
Return loss (in-out) 2150-2400 MHz	12.0dB	12.0dB	13.0dB	13.0dB	12.0dB	12.0dB
Return loss (tap) 5-40 MHz	15.0dB	15.0dB	14.0dB	17.0dB	17.0dB	17.0dB
Return loss (tap) 40-1000 MHz	17.0dB	15.0dB	14.0dB	16.0dB	16.0dB	16.0dB
Return loss (tap) 1000-2150 MHz	15.0dB	13.0dB	13.0dB	13.0dB	13.0dB	13.0dB
Return loss (tap) 2150-2400 MHz	13.0dB	13.0dB	13.0dB	13.0dB	13.0dB	13.0dB
ELECTRICAL						
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL						
Certification	CE, RoHS					
DC Passthrough	Yes IN-OUT (max. 500mA) TAPS DC blocked					
CONNECTORS						
Connector Type	F-female	F-female	F-female	F-female	F-female	F-female
Number of inputs	1	1	1	1	1	1
Number of outputs	1	1	1	1	1	1
Number of taps	1	1	1	1	1	1
MECHANICAL						
Product Depth	16mm	16mm	16mm	16mm	16mm	16mm
Product Width	53mm	53mm	53mm	53mm	53mm	53mm
Product Height	52mm	52mm	52mm	52mm	52mm	52mm
Bracket (optional)	2 x BS-Brackets Small 1-4 T&S (Art.No.342100)					
Main Material	Zinc die-casting, bright tin plated					
Packing QTY	1	1	1	1	1	1
Net Weight	0,045kg	0,045kg	0,045kg	0,045kg	0,045kg	0,045kg

TERRESTRIAL
RECEPTION

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RECEPTION

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CABLES &
CONNECTORS

OUTLETS
TAPS & SPLITTER

INHOUSE
CONNECTIVITY

SURVEILLANCE
(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX[®] Silver 2.4 GHz, 2-way taps

for SAT-IF, MATV distribution networks



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Common Features – SCT Taps series

The TRIAX "SILVER" Indoor Splitter and Taps are used in coaxial SAT-IF distribution networks operating with DVB-S/S2 (QPSK, 8PSK) and/or in MATV applications with DTT (COFDM, DAB) signals.

- All outputs of the splitters SCS are DC directed coupled via diodes to the input, the taps SCT pass DC power through the trunk path

- The die-cast enclosures are tin (Sn) coated and the back plates are soldered for very high shielding.
- High shielding of 110 dB
- Return loss Grade 2 (>18dB)
- F- female connectors, EN 61169-24 compliant
- Die-cast housing with tin (Sn) coating
- Meets EN 50083-2 and EN 60728-4

SCT 2-10 - 2 way tap

Art. No. 342210

EAN Number
5702663422100



SCT 2-16 - 2 way tap

Art. No. 342216

EAN Number
5702663422162



SCT 2-12 - 2 way tap

Art. No. 342212

EAN Number
5702663422124



SCT 2-20 - 2 way tap

Art. No. 342220

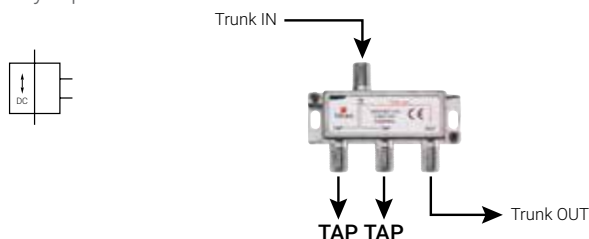
EAN Number
5702663422209



TRIAX[®] Silver taps

frequency range 5...2400 MHz

2-way tap



Type:	SCT 2-10	SCT 2-12	SCT 2-16	SCT 2-20
Art. No.	342210	342212	342216	342220
FREQUENCY				
Frequency range	5...2400MHz	5...2400MHz	5...2400MHz	5...2400MHz
SHIELDING				
Shielding efficiency VHF/UHF	> 110dB	> 110dB	> 110dB	> 110dB
LOSS				
Insertion loss (in-out) 5-40 MHz	3.3dB	2.7dB	2.2dB	1.6dB
Insertion loss (in-out) 40-1000 MHz	3.2dB	2.8dB	2.2dB	1.6dB
Insertion loss (in-out) 1000-2150 MHz	3.8dB	3.6dB	3.5dB	2.9dB
Insertion loss (in-out) 2150-2400 MHz	4.5dB	4.4dB	3.8dB	3.5dB
Tap loss (in-tap) 5-40 MHz	10.0 (± 2.0)dB	12.0 (± 1.2)dB	16.0 (± 1.2)dB	20.0 (± 1.5)dB
Tap loss (in-tap) 40-1000 MHz	10.0 (± 1.5)dB	12.0 (± 1.2)dB	16.0 (± 1.2)dB	20.0 (± 1.5)dB
Tap loss (in-tap) 1000-2150 MHz	10.0 (± 2.0)dB	12.0 (± 1.5)dB	16.0 (± 2.5)dB	20.0 (± 2.0)dB
Tap loss (in-tap) 2150-2400 MHz	10.0 (± 3.0)dB	12.0 (± 2.5)dB	16.0 (± 2.5)dB	20.0 (± 2.5)dB
ISOLATION				
Isolation (out-tap) 5-40 MHz	25dB	27dB	28dB	32dB
Isolation (out-tap) 40-1000 MHz	25dB	24dB	28dB	27dB
Isolation (out-tap) 1000-2150 MHz	22dB	23dB	23dB	23dB
Isolation (out-tap) 2150-2400 MHz	20dB	20dB	22dB	23dB
Isolation (tap-tap) 5-40 MHz	23dB	38dB	40dB	44dB
Isolation (tap-tap) 40-1000 MHz	30dB	33dB	38dB	41dB
Isolation (tap-tap) 1000-2150 MHz	28dB	30dB	33dB	36dB
Isolation (tap-tap) 2150-2400 MHz	26dB	28dB	29dB	32dB
RETURN LOSS				
Return loss (in-out) 5-40 MHz	13.0dB	10.0dB	11.0dB	11.0dB
Return loss (in-out) 40-1000 MHz	14.0dB	14.0dB	14.0dB	14.0dB
Return loss (in-out) 1000-2150 MHz	14.0dB	14.0dB	14.0dB	14.0dB
Return loss (in-out) 2150-2400 MHz	12.0dB	12.0dB	12.0dB	12.0dB
Return loss (tap) 5-40 MHz	13.0dB	13.0dB	13.0dB	13.0dB
Return loss (tap) 40-1000 MHz	15.0dB	15.0dB	15.0dB	15.0dB
Return loss (tap) 1000-2150 MHz	13.0dB	13.0dB	13.0dB	13.0dB
Return loss (tap) 2150-2400 MHz	13.0dB	13.0dB	13.0dB	13.0dB
ELECTRICAL				
Impedance	75Ω	75Ω	75Ω	75Ω
OPERATIONAL				
Certification	CE, RoHS			
DC Passthrough	Yes IN-OUT (max. 500mA) TAPS DC blocked			
CONNECTORS				
Connector Type	F-female	F-female	F-female	F-female
Number of inputs	1	1	1	1
Number of outputs	1	1	1	1
Number of taps	2	2	2	2
MECHANICAL				
Product Depth	16mm	16mm	16mm	16mm
Product Width	74mm	74mm	74mm	74mm
Product Height	57mm	57mm	57mm	57mm
Bracket (optional)	2 x BS-Brackets Small 1-4 T&S (Art.No.342100)			
Main Material	Zinc die-casting, bright tin plated			
Packing QTY	1	1	1	1
Net Weight	0,058kg	0,058kg	0,058kg	0,058kg

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

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TRIAX[®] Silver 2.4 GHz, 4-way taps

for SAT-IF, MATV distribution networks



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(CCTV)

INSTRUMENTS
TOOLS &
CABINETS

TECHNICAL
APPENDIX



Common Features – SCT Taps series

The TRIAX "SILVER" Indoor Splitter and Taps are used in coaxial SAT-IF distribution networks operating with DVB-S/S2 (QPSK, 8PSK) and/or in MATV applications with DTT (COFDM, DAB) signals.

- All outputs of the splitters SCS are DC directed coupled via diodes to the input, the taps SCT pass DC power through the trunk path

- The die-cast enclosures are tin (Sn) coated and the back plates are soldered for very high shielding
- High shielding of 110 dB
- Return loss Grade 2 (>18dB)
- F- female connectors, EN 61169-24 compliant
- Die-cast housing with tin (Sn) coating
- Meets EN 50083-2 and EN 60728-4



SCT 4-12 - 4 way tap

Art. No. 342412

EAN Number
5702663424128



SCT 4-24 - 4 way tap

Art. No. 342424

EAN Number
5702663424241



SCT 4-16 - 4 way tap

Art. No. 342416

EAN Number
5702663424166



SCT 4-30 - 4 way tap

Art. No. 342430

EAN Number
5702663424302



SCT 4-20 - 4 way tap

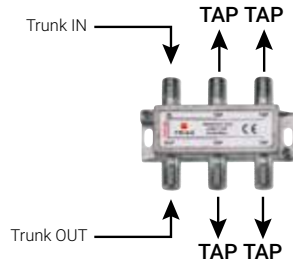
Art. No. 342420

EAN Number
5702663424203

TRIAX[®] Silver taps

frequency range 5...2400 MHz

4-way tap



Type:	SCT 4-12	SCT 4-16	SCT 4-20	SCT 4-24	SCT 4-30
Art. No.	342412	342416	342420	342424	342430
FREQUENCY					
Frequency range	5...2400MHz	5...2400MHz	5...2400MHz	5...2400MHz	5...2400MHz
SHIELDING					
Shielding efficiency VHF/UHF	> 110dB	> 110dB	> 110dB	> 110dB	> 110dB
LOSS					
Insertion loss (in-out) 5-40 MHz	3.7dB	2.5dB	1.5dB	0.8dB	0.8dB
Insertion loss (in-out) 40-1000 MHz	4.3dB	2.5dB	1.4dB	0.9dB	0.9dB
Insertion loss (in-out) 1000-2150 MHz	4.5dB	3.2dB	1.7dB	1.8dB	1.5dB
Insertion loss (in-out) 2150-2400 MHz	5.3dB	3.9dB	2.1dB	1.8dB	1.5dB
Tap loss (in-tap) 5-40 MHz	12.0 (± 1.2)dB	16.0 (± 1.2)dB	20.0 (± 1.2)dB	24.0 (± 1.2)dB	30.0 (± 1.2)dB
Tap loss (in-tap) 40-1000 MHz	12.0 (± 1.2)dB	16.0 (± 1.2)dB	20.0 (± 1.2)dB	24.0 (± 1.2)dB	30.0 (± 1.2)dB
Tap loss (in-tap) 1000-2150 MHz	14.0 (± 2.0)dB	16.0 (± 2.5)dB	20.0 (± 2.5)dB	24.0 (± 2.5)dB	30.0 (± 3.0)dB
Tap loss (in-tap) 2150-2400 MHz	14.0 (± 2.5)dB	16.0 (± 2.5)dB	20.0 (± 2.5)dB	24.0 (± 2.5)dB	30.0 (± 3.0)dB
ISOLATION					
Isolation (out-tap) 5-40 MHz	28dB	27dB	28dB	33dB	38dB
Isolation (out-tap) 40-1000 MHz	27dB	27dB	27dB	28dB	33dB
Isolation (out-tap) 1000-2150 MHz	22dB	23dB	23dB	23dB	23dB
Isolation (out-tap) 2150-2400 MHz	23dB	22dB	23dB	22dB	23dB
Isolation (tap-tap) 5-40 MHz	24dB	28dB	28dB	28dB	30dB
Isolation (tap-tap) 40-1000 MHz	23dB	23dB	24dB	23dB	26dB
Isolation (tap-tap) 1000-2150 MHz	23dB	24dB	23dB	24dB	24dB
Isolation (tap-tap) 2150-2400 MHz	23dB	24dB	23dB	23dB	23dB
RETURN LOSS					
Return loss (in-out) 5-40 MHz	11.0dB	13.0dB	13.0dB	16.0dB	16.0dB
Return loss (in-out) 40-1000 MHz	14.0dB	14.0dB	14.0dB	15.0dB	15.0dB
Return loss (in-out) 1000-2150 MHz	12.0dB	12.0dB	12.0dB	12.0dB	12.0dB
Return loss (in-out) 2150-2400 MHz	12.0dB	12.0dB	12.0dB	12.0dB	12.0dB
Return loss (tap) 5-40 MHz	13.0dB	15.0dB	15.0dB	15.0dB	15.0dB
Return loss (tap) 40-1000 MHz	15.0dB	15.0dB	15.0dB	15.0dB	15.0dB
Return loss (tap) 1000-2150 MHz	13.0dB	13.0dB	13.0dB	13.0dB	13.0dB
Return loss (tap) 2150-2400 MHz	13.0dB	12.0dB	12.0dB	12.0dB	12.0dB
ELECTRICAL					
Impedance	75Ω	75Ω	75Ω	75Ω	75Ω
OPERATIONAL					
Certification	CE, RoHS				
DC Passthrough	Yes IN-OUT (max. 500mA) TAPS DC blocked				
CONNECTORS					
Connector Type	F-female	F-female	F-female	F-female	F-female
Number of inputs	1	1	1	1	1
Number of outputs	1	1	1	1	1
Number of taps	4	4	4	4	4
MECHANICAL					
Product Depth	16mm	16mm	16mm	16mm	16mm
Product Width	74mm	74mm	74mm	74mm	74mm
Product Height	57mm	57mm	57mm	57mm	57mm
Bracket (optional)	2 x BS-Brackets Small 1-4 T&S (Art.No.342100)				
Main Material	Zinc die-casting, bright tin plated				
Packing QTY	1	1	1	1	1
Net Weight	0,066kg	0,068kg	0,068kg	0,062kg	0,063kg

TERRESTRIAL
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TAPS & SPLITTER

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CONNECTIVITY

SURVEILLANCE
(CCTV)

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CABINETS

TECHNICAL
APPENDIX

TRIAX[®] Silver 2.4 GHz, 6 & 8-way taps

for SAT-IF, MATV distribution networks



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APPENDIX



Common Features – SCT Taps series

The TRIAX "SILVER" Indoor Splitter and Taps are used in coaxial SAT-IF distribution networks operating with DVB-S/S2 (QPSK, 8PSK) and/or in MATV applications with DTT (COFDM, DAB) signals.

- All outputs of the splitters SCS are DC directed coupled via diodes to the input, the taps SCT pass DC power through the trunk path

- The die-cast enclosures are tin (Sn) coated and the back plates are soldered for very high shielding
- High shielding of 110 dB
- Return loss Grade 2 (>18dB)
- F- female connectors, EN 61169-24 compliant
- Die-cast housing with tin (Sn) coating
- Meets EN 50083-2 and EN 60728-4

SCT 6-16 - 6 way tap

Art. No. 342616

EAN Number
5702663426160



SCT 8-16 - 8 way tap

Art. No. 342816

EAN Number
5702663428164



SCT 6-20 - 6 way tap

Art. No. 342620

EAN Number
5702663426207



SCT 8-20 - 8 way tap

Art. No. 342820

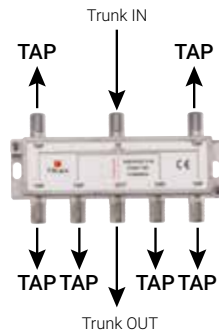
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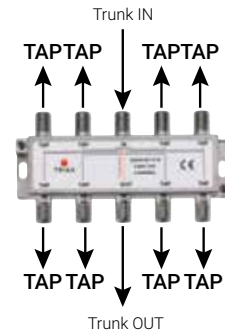
TRIAX[®] Silver taps

frequency range 5...2400 MHz

6-way tap



8-way tap



Type:	SCT 6-16	SCT 6-20	SCT 8-16	SCT 8-20
Art. No.	342616	342620	342816	342820
FREQUENCY				
Frequency range	5...2400MHz	5...2400MHz	5...2400MHz	5...2400MHz
SHIELDING				
Shielding efficiency VHF/UHF	> 110dB	> 110dB	> 110dB	> 110dB
LOSS				
Insertion loss (in-out) 5-40 MHz	3.5dB	2.1dB	3.8dB	2.1dB
Insertion loss (in-out) 40-1000 MHz	3.8dB	2.3dB	3.8dB	2.2dB
Insertion loss (in-out) 1000-2150 MHz	4.8dB	3.9dB	4.6dB	3.9dB
Insertion loss (in-out) 2150-2400 MHz	5.6dB	4.5dB	5.9dB	4.8dB
Tap loss (in-tap) 5-40 MHz	16.0 (± 1.5)dB	20.0 (± 1.5)dB	16.0 (± 1.5)dB	20.0 (± 1.5)dB
Tap loss (in-tap) 40-1000 MHz	16.0 (± 1.5)dB	20.0 (± 1.5)dB	16.0 (± 1.5)dB	20.0 (± 1.5)dB
Tap loss (in-tap) 1000-2150 MHz	18.0 (± 2.5)dB	22.0 (± 2.5)dB	18.0 (± 2.5)dB	22.0 (± 2.5)dB
Tap loss (in-tap) 2150-2400 MHz	18.0 (± 3.0)dB	22.0 (± 3.0)dB	18.0 (± 3.0)dB	22.0 (± 3.0)dB
ISOLATION				
Isolation (out-tap) 5-40 MHz	28dB	27dB	28dB	31dB
Isolation (out-tap) 40-1000 MHz	28dB	27dB	28dB	28dB
Isolation (out-tap) 1000-2150 MHz	24dB	24dB	23dB	24dB
Isolation (out-tap) 2150-2400 MHz	23dB	24dB	23dB	24dB
Isolation (tap-tap) 5-40 MHz	26dB	28dB	24dB	33dB
Isolation (tap-tap) 40-1000 MHz	23dB	25dB	25dB	25dB
Isolation (tap-tap) 1000-2150 MHz	23dB	23dB	23dB	24dB
Isolation (tap-tap) 2150-2400 MHz	23dB	23dB	23dB	23dB
RETURN LOSS				
Return loss (in-out) 5-40 MHz	11.0dB	11.0dB	12.0dB	11.0dB
Return loss (in-out) 40-1000 MHz	12.0dB	13.0dB	12.0dB	13.0dB
Return loss (in-out) 1000-2150 MHz	12.0dB	13.0dB	15.0dB	16.0dB
Return loss (in-out) 2150-2400 MHz	12.0dB	12.0dB	12.0dB	15.0dB
Return loss (tap) 5-40 MHz	13.0dB	13.0dB	15.0dB	13.0dB
Return loss (tap) 40-1000 MHz	13.0dB	13.0dB	15.0dB	15.0dB
Return loss (tap) 1000-2150 MHz	12.0dB	12.0dB	12.0dB	12.0dB
Return loss (tap) 2150-2400 MHz	12.0dB	12.0dB	12.0dB	12.0dB
ELECTRICAL				
Impedance	75Ω	75Ω	75Ω	75Ω
OPERATIONAL				
Certification	CE, RoHS			
DC Passthrough	Yes IN-OUT (max. 500mA) TAPS DC blocked			
CONNECTORS				
Connector Type	F-female	F-female	F-female	F-female
Number of inputs	1	1	1	1
Number of outputs	1	1	1	1
Number of taps	6	6	8	8
MECHANICAL				
Product Depth	17mm	17mm	17mm	17mm
Product Width	119mm	119mm	119mm	119mm
Product Height	65mm	65mm	65mm	56mm
Bracket (optional)	2 x BL-Brackets Large 6-8 T&S (Art.No.342102)			
Main Material	Zinc die-casting, bright tin plated			
Packing QTY	1	1	1	1
Net Weight	0,122kg	0,130kg	0,128kg	0,117kg

TERRESTRIAL
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& FIBRE
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TOOLS &
CABINETS

TECHNICAL
APPENDIX

TRIAX® IEC splitters & delivery points

indoor splitters and separators



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OUTLETS
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SPLITTER

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TECHNICAL
APPENDIX



Splitters with F- or IEC connector

The 102 series are easy to use splitters with F-male or F-female connectors, for indoor use.



102 FF/M - 2 way splitter

Art. No. 338365

EAN Number
5702663383654



102 MM/F - 2 way splitter

Art. No. 338366

EAN Number
5702663383661

TRIAX selective delivery point for separating TV/R and data signals

Mount a TRIAX TDP delivery point on the main connection cable to your SMATV system and get a stable and secure separation of your signal to your TV, radio and cable modem.

- High isolation
- Low insertion loss
- Class A shielding



TDP-4 - delivery point

Art. No. 346094

Insertion loss (in-out)
5-65 MHz > 43 (TV)/
4.0 (Data) dB



TDP-7 - delivery point

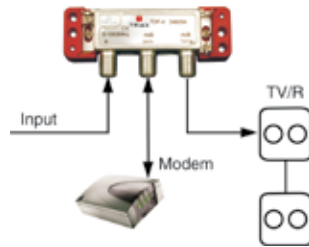
Art. No. 346097

Insertion loss (in-out)
5-65 MHz > 43 (TV)/
7.0 (Data) dB

TRIAX® IEC splitters & delivery points

frequency range 5...1000 MHz

TDP example



Type:	102 FF/M 2 way splitter	102 MM/F 2 way splitter	TDP-4 delivery point	TDP-7 delivery point
Art. No.	338365	338366	346094	346097
FREQUENCY				
Frequency range	47...862MHz	47...862MHz	5-1000 MHz	5-1000 MHz
LOSS				
Insertion loss (in-out) 40-470 MHz	3.5dB	3.5dB		
Insertion loss (in-out) 470-860 MHz	3.5dB	3.5dB		
Insertion loss (in-out) 5-65 MHz			> 43 (TV)/4.0 (Data)dB	> 43 (TV)/7.0 (Data)dB
Insertion loss (in-out) 65-87 MHz			4.0 (Data)dB	7.0 (Data)dB
Insertion loss (in-out) 87-1000 MHz			4.0 (TV)/4.0 (Data)dB	2.8 (TV)/7.0 (Data)dB
ISOLATION				
Isolation (out-tap) 5-40 MHz	dB	dB	47.0dB	47.0dB
Isolation (out-tap) 40-470 MHz	dB	dB		
Isolation (out-tap) 470-1000 MHz			23.0dB	23.0dB
RETURN LOSS				
Return loss (input) 5-40 MHz			> 22.0dB	> 23.0dB
Return loss (input) 40-1000 MHz			> 20.0dB	> 20.0dB
Return loss (data) 5-40 MHz			> 24.0dB	> 20.0dB
Return loss (data) 40-1000 MHz			> 23.0dB	> 20.0dB
Return loss (TV/R) 87-1000 MHz			> 18.0dB	> 18.0dB
ELECTRICAL				
Impedance	75Ω	75Ω	75Ω	75Ω
OPERATIONAL				
DC Passthrough	Yes	Yes		
Screening Efficiency			Class A +10dB	Class A +10dB
CONNECTORS				
Connector Type	IEC-female	IEC-male	F-female	F-female
Number of inputs	1	1	1	1
Number of outputs	2	2	2	2
MECHANICAL				
Product Depth	mm	mm	16mm	16mm
Product Width	mm	mm	74mm	74mm
Product Height	mm	mm	50mm	50mm
Packing QTY	1	1	1	1
Net Weight	0,036kg	0,034kg	0,063kg	0,063kg

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TRIAX[®] Taps & Splitters

accessories

- for TRIAX Gold series

ACB-S bracket for ACS/ACT

Art. No. 343232

EAN Number
5702663432321

Description

Small plastic bracket



ACB-M bracket for ACS/ACT

Art. No. 343233

EAN Number
5702663432338

Description

Medium plastic bracket



ACB-L bracket for ACS/ACT

Art. No. 343234

EAN Number
5702663432345

Description

Large plastic bracket



ACB-XL bracket for ACS/ACT

Art. No. 343235

EAN Number
5702663432352

Description

XLarge plastic bracket



ACB-V bracket for ACV

Art. No. 343236

EAN Number
5702663432369

Description

2 pcs Plastic bracket for AVC,
vertical mounting



- for TRIAX Silver series

BS Bracket small

Art. No. 342100

EAN Number
5702663421004

Description

2 pcs Small plastic bracket
with 2 screws



BS Bracket large

Art. No. 342102

EAN Number
5702663421028

Description

2 pcs Large plastic bracket
with 2 screws



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TRIAX[®] InHouse connectivity

Ethernet over Coax, UHD Video, Audio, Control Solutions

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■ EoC solution (Ethernet over Coax)	354-355
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SAT>IP [TSS 400]	
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TRIAX® Excellent Wi-Fi coverage

Using existing coax installations



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TRIAX Ethernet over Coax solution

is the straightforward way of using existing coax networks to transport data signals and distribute over a reliable Wi-Fi connection.

No changes to the coax installation are required, while TV signals are not affected.

A controller is set up centrally or at points throughout the coax installation. End points can be set up in each room or each second room to maximise Wi-Fi coverage.

Hotelier benefits

- Better Wi-Fi coverage
- Save costs by reusing existing cables
- Easy installation means no room downtime
- Less maintenance

Installer benefits

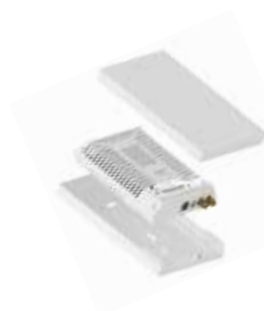
- Competitive pricing for total installation
- Flexible and reliable network
- Easy installation
- Cloud configuration and monitoring



**Ethernet Controller 32
EoC EP, Wi-Fi, Pro**

Art. No. 383101

EAN Number
5702663831018



**End-Point EoC/Wi-Fi
AC1300, Pro**

Art. No. 383200

EAN Number
5702663832008



**Ethernet Controller 64
EoC EP, Wi-Fi, Pro**

Art. No. 383103

EAN Number
5702663831032



**5-200 MHz
return path filter**

Art. No. 383900

EAN Number
5702663839007

TRIAX® Ethernet over Coax

Superfast, reliable broadband around the hotel .



Type:	Controller for 32/64 Ethernet over Coax End-Points and Wi-Fi, Pro
Art. No.	383101/383103

Standards	G.hn wave 2 controller support ITU-T G.9960, ITU-T G.9963 (G.hn PHY), ITU-T G.9961 and G.9962 (MAC and DLL) specifications.
-----------	---

Bandwidth	Up to 1,600 Mbit/s (shared with other end-points on the same coax cable)
-----------	--

Internet/IP operating frequency	2-200 Mhz.
---------------------------------	------------

TRAFFIC MANAGEMENT

VLAN	Portbased 802.1Q
------	------------------

Client isolation (guestmode)	Per SSID/VLAN
------------------------------	---------------

NETWORKING INTERFACE

Ethernet port	4x 10/100/1000 (3 for switching, 1 for stacking/management)
---------------	---

G.hn out	2 or 4x 1,600 Mbit/s (supports up to 16 end-points per connector)
----------	---

CONNECTORS

Connector Type - TV-in	1 F-connector
------------------------	---------------

Connector Type - G.hn out	2 or 4 F-connector
---------------------------	--------------------

REMARKS

Wi-Fi controller

Supports VLAN tagging up to 4,096 VLAN ID's

Co-existence with FM band or other devices operating in the 2-200 Mhz range.

Type:	End-Point with Wi-Fi and Ethernet over Coax, AC, Pro
Art. No.	383200

Standards	G.hn wave 2 end-point Support ITU-T G.9960 and ITU-T G.9963 (G.hn PHY), ITU-T G.9961 and G.9962 (MAC and DLL) specifications.
-----------	---

Bandwidth	Up to 1,600 Mbit/s (shared with other end-points on the same coax cable)
-----------	--

Internet/IP operating frequency	2-200 Mhz.
---------------------------------	------------

WiFi types	WiFi 802.11 ac wave 2 (802.11b/g/n 2.4GHz, 802.11a/n/ac 5GHz)
------------	---

Antennas:	2.4 GHz and 5 GHz, Dual internal
-----------	----------------------------------

Wireless security	WPA, WPA-2 with AES and TKIP, EAP authentication
-------------------	--

Date rates 802.11ac	867 Mbit/s
---------------------	------------

Date rates 802.11n	300 Mbit/s
--------------------	------------

Managed access point

TRAFFIC MANAGEMENT

VLAN	Portbased 802.1Q
------	------------------

Client isolation (guestmode)	Per SSID/VLAN
------------------------------	---------------

NETWORKING INTERFACE

Ethernet port	1x 10/100/1000
---------------	----------------

CONNECTORS

Connector Type - G.hn out	1x 1,600 Mbit/s F-con.
---------------------------	------------------------

Connector Type - TV-out	1x F-connector
-------------------------	----------------

- TERRESTRIAL RECEPTION
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TRIAX[®] Internet over TV cables

The smart choice for home entertainment networks



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Using the latest MoCA[®] 2.0 (Multimedia over Coax Alliance) technology.

As the demand for home entertainment grows ever higher, customers have an insatiable appetite for faster and more reliable internet around the house.

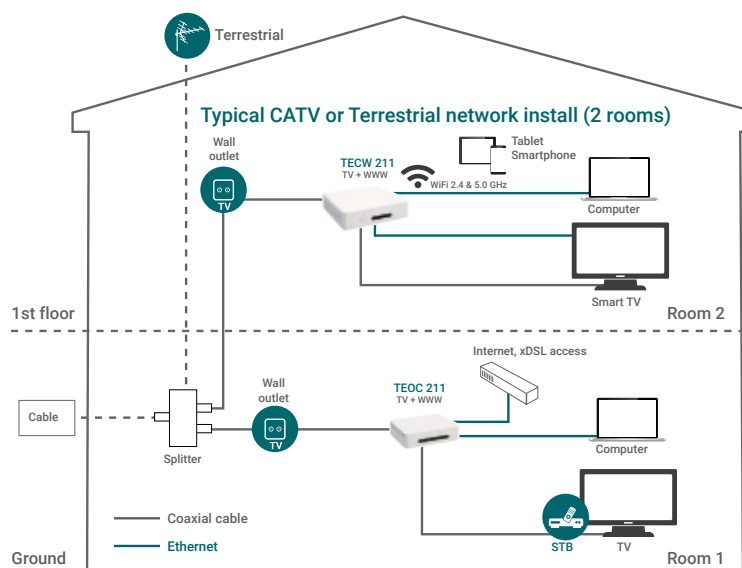
Whether they're streaming a 4K movie in the living room, catching up with the latest episode on a phone, online gaming in the bedroom – or all of these at once – they want data to be delivered to every corner of the house with minimal interference.

What they may not be aware of is the extent to which their traditional Wi-Fi setup can cause data bottlenecks within

the household, as single routers struggle to cope with the demands of multiple devices.

With our new range of MoCA[®] 2.0 Ethernet over Coax adapters, you can use existing home coaxial networks to deliver a fast, reliable data signal from every TV access point in the household.

Far more reliable than a single Wi-Fi access point or internet over power cables, it's the most effective way to deliver a home network solution that keeps you and your customers happy.

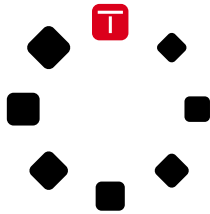


MoCA[®] 2.0 compliant

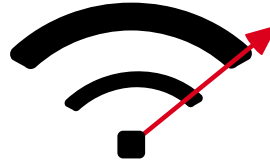
Compatible with TV coax cable carrying terrestrial signals only (DTT or CATV). Cannot be used with satellite TV systems or any connection where Satellite and Terrestrial TV are combined on the same cable. Broadband speed and performance around the home is dependent on incoming speeds from the broadband provider at a particular location.

Network adapters for coaxial cable

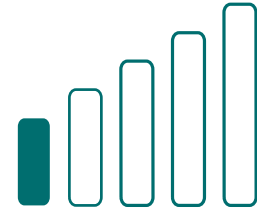
Superfast, reliable broadband around the home.



Improve your existing network.



Make your home network faster and better.



Fix your wireless dead zones

Benefits for you:

- **No new cables required**
Create a high-speed data network using existing TV coax cabling.
- **Stay connected**
Wired connections are now possible around the entire home from up to 16 access points, ensuring maximum speed and reliability for each connected device. Dedicated wireless access points in each room are also now possible with our wireless model.
- **Immune from interference**
Coaxial cables are shielded and therefore unaffected by other devices around the home, unlike an internet over power cable solution.
- **Simple to install with Plug and Play technology**
Simply connect a device to our adapter with an Ethernet cable wherever a broadband connection is required. On our Wi-Fi model, Wi-Fi settings are a breeze thanks to our bespoke Triax configuration tool.
- **Create additional revenue streams**
Quickly and easily improve the home entertainment and networking experience for your customers, who are sure to value reliable and high speed data and video streaming throughout the house.

Benefits for your customer:

- **Maximise your devices' potential**
Many manufacturers of home entertainment products recommend wired internet connections for optimal speed and connectivity – our adapters provide this in all rooms of the house with a TV outlet.
- **Improve Wi-Fi coverage**
Eliminate dead spots where wired connectivity isn't possible or existing routers fail to reach. Our dual band Wi-Fi adapter supports 802.11 a/b/g/n/ac
- **Reduce buffering**
Faster downloads, streaming and content sharing to other devices on the home network (minimum 400 Mbps, up to 600Mbps)
- **Smoother online gaming**
Fast and stable connection with lower latency creates a more immersive experience for gamers, with smoother gameplay and faster response times.



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TRIAX® TEOC 211 & TECW 211

The smart choice for home entertainment networks



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Features and benefits

The TEOC 211 and TECW 211 are a multi-purpose Network adaptor for coaxial cable bridge device. It can be used in a number of different ways to deliver Gigabit Ethernet connection via an existing coaxial (TV aerial or cable TV) connection.

The TECW 211 also offers WiFi dual band 2.4 and 5GHz in order to improve your local WLAN Wi-Fi coverage in your home installation.

It can be used as either a sender or receiver but it will need to be used with at least one other TRIAX Ethernet over Coax compatible device.

Both devices delivering superfast, reliable broadband around the home using existing TV connections. Using the latest MoCA® 2.0 (Multimedia over Coax Alliance) technology, to satisfy the most data-hungry households.



TEOC 211 Network adapter for Coax

Art. No. 310401

EAN Number
5702663104013



TECW 211 Network adapter for Coax with WiFi

Art. No. 310411

EAN Number
5702663104112



TEOC 110 Network adapter for Coax

Art. No. 310400

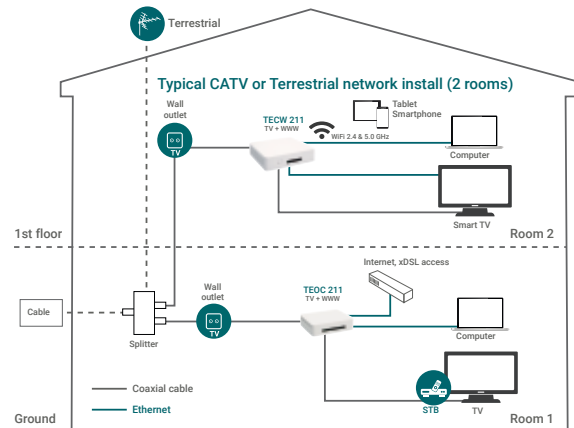
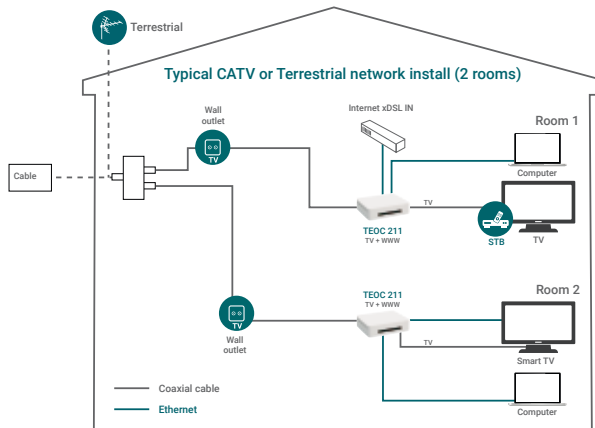
EAN Number
5702663104006



Network adapters for coaxial cable

Superfast, reliable broadband around the home.

TEOC 211 + TECW example



Type:	TEOC 211 Network adapter for Coax	TECW 211 Network adapter for Coax with WiFi	TEOC 110 Network adapter for Coax
Art. No.	310401	310411	310400
FREQUENCY			
Frequency range	MoCA range : 1.15...1.6GHz		
Frequency range	DVB-T/C range : 5...1002MHz		
High pass	1125...1675MHz	1125...1525MHz	1125-1525MHz
Low pass	5...1002MHz	5...1002MHz	5-1002MHz
Network Center	1150...1600MHz	1150...1600MHz	1150-1500MHz
LOSS			
High pass - Insertion loss	< 5dB	< 5dB	Max. 3dB
Low pass - Insertion loss	< 5dB	< 5dB	Max. 2dB
RETURN LOSS			
High pass - Return loss	Min. 8dB	Min. 8dB	Min. 10dB
Low pass - Return loss	Min. 8dB	Min. 8dB	Min. 10dB
ELECTRICAL			
Impedance	75Ω	75Ω	75Ω
OPERATIONAL			
Certification	EMC/LVD, WEEE	EMC/LVD, WEEE	EMC/LVD, WEEE
DC Operating voltage	5VDC	12VDC	5VDC
External PSU	Included	Included	Included
Standard	MoCA® 2.0, 1.1 and 1.0 compliant	MoCA® 2.0, 1.1 and 1.0 compliant	Entropic, EN2510, MoCA® 1.1 compliant
AC Supply voltage	100...240 /50...60HzVAC	100...240 /50...60HzVAC	100...240 /50...60HzVAC
Power Consumption (typ.)	3.5W	13.2W	<4W
DC Current consumption (TYP)			2.0A
CONNECTORS			
Connector Type	F-female (IEC 60 169-24)	F-female (IEC 60 169-24)	F-female (IEC 60 169-24)
MECHANICAL			
Colour	White	White	White
Product Depth	30mm	35mm	28 mm
Product Height	101mm	142mm	80 mm
Product Width	122mm	155mm	125mm
Main Material	Plastic	Plastic	Plastic
Packing QTY	1	1	1
Weight (kg)	0.2kg	0.3kg	0.2kg
Remarks	2 Ethernet ports 10/100/1000 Mbps LED ON/OFF switch. 16 devices max. on the same network		

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TRIAX® Sat>IP Server

Satellite TV for Smartphones, Tablets and other Devices



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Features and benefits

The SAT>IP products from Triax make it possible to distribute satellite TV over cable connected (LAN, Power LAN) or cableless networks (WLAN). SAT>IP-compatible units such as TV sets, receivers, PCs, smartphones, tablets and other mobile units can be provided with all available free TV and radio programmes. Thanks to the web-based configurator the products are easily set up and controlled.

Benefits

- SAT-distribution via cable connected and cableless networks
- Digital picture and audio quality – even in high-resolution HD-format
- Converts SAT into IPTV signals
- All digital additional options such as EPG, recording function and time shift can be used in the unit*
- Live uncompressed SAT TV

Easy set-up

- Supports different types of LNB
- Easy installation and control with the web-based configurator
- Can be used with compatible SAT>IP units
- Software update Online (via FTP) or via Web-configurator
- Compatible with 100/1.000-Megabit networks

SAT>IP compatible devices

- Up to 4 units can access different TV programs at the same time
- Compatible with all SAT > IP compatible units such as: SAT>IP receiver, Tablets and smartphones, PCs and laptops, Video game consoles

* - need the righ App. to provided the unit supports the function

TSS 400 SAT>IP Converter

Art. No. 310101

EAN Number
5702663101012



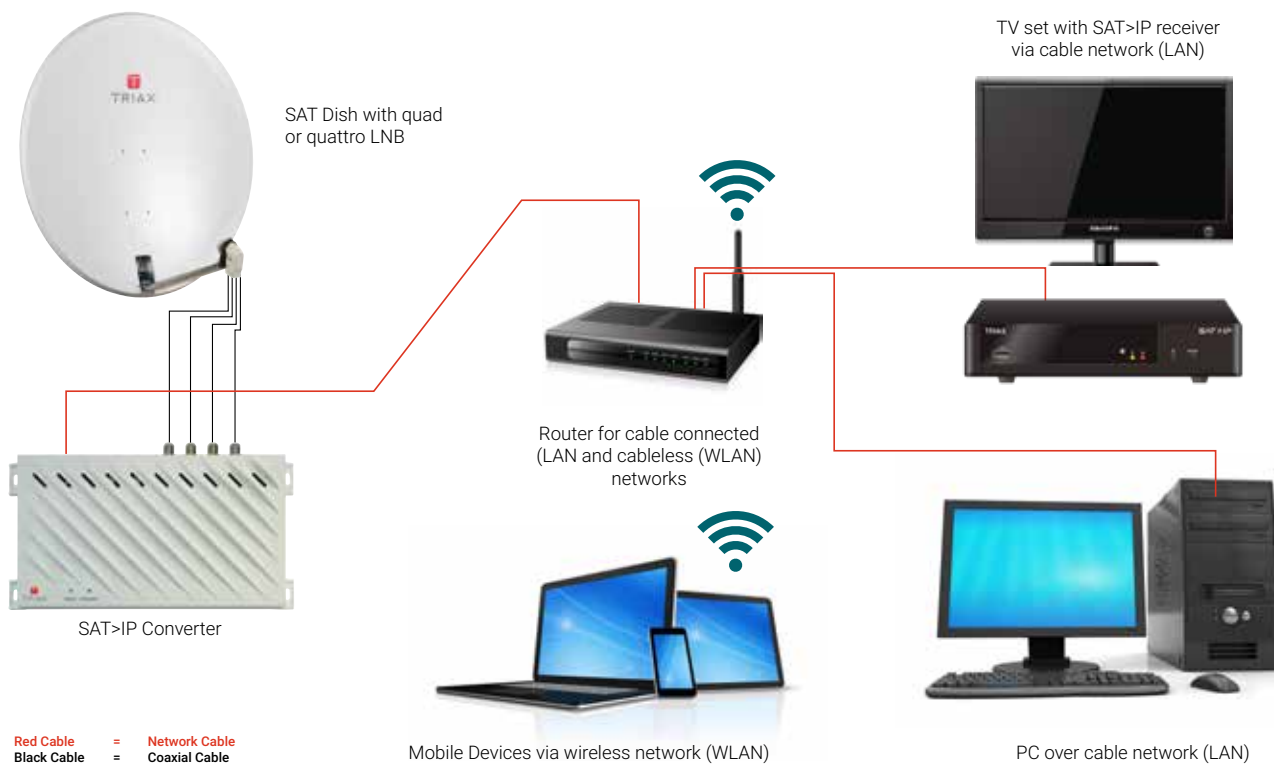
Connections



- 1 F-connectors for LNB input
- 2 Network interface
- 3 Reset button
- 4 On/off switch and power supply

TRIAX® TSS 400

Converts SAT-IF signals to IPTV signals



Type:	TSS 400 Mk. IISAT>IP Converter
Art. No.	310101
CHARACTERISTICS	
Tuner	DVB-S DVB-S2 (HDTV)
Number of tuners (different units)	4
Supported LNBS	Quad, Quattro, Unicable LNB Optical Quad or Quattro reconverter
Plug & Play	Yes
Unicable capable	Yes
OPERATIONAL	
Updates via Web configurator	Yes
Supported protocols	SAT>IP Protocol Version 1.1 Unicast via HTTP 1.0/1.1 Multicast via UDP/RTP
ELECTRICAL	
Impedance	75Ω
CONNECTORS	
Connector Type	4x F-female, Ethernet 100/1000 MBit/s
MECHANICAL	
Colour	White
Product Dimension W x H x D	250 x 126 x 35mm
Packing QTY	1
Weight (kg)	0.75kg
Box contains	Converter Power Supply Quick Start Guide

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TRIAX[®] surveillance solutions

help protect the safety and security of people and assets.

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TRIAX[®] surveillance solutions

– help protect the safety and security of people and assets.



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Image quality is one of the most important factors when installing a CCTV system.

Our CCTV cameras provide sharp and detailed full HD video footage (up to 4MP resolution). As well as monitoring activity, they can also be used as a visual deterrent where appropriate. Cameras are available with fixed or varifocal lenses in dome or bullet housings.

Advanced Functionality

Activity is recorded by connecting CCTV cameras with a Digital Recorder installed with a HDD for playback on a monitor or TV. They can be set for continuous or scheduled recording, motion detection or triggered alarm using the intuitive menu – the same menus are used across the TRIAX range enabling logical on-going installations. Our Digital Recorders are available with 4, 8 or 16 channels, allowing up to 16 cameras be connected to a system.

TRIAX App - Monitor Anywhere, Anytime

As well as a great range of HD cameras suitable for every budget, when connected to one of our Digital Recorders, all our cameras can be accessed remotely via the dedicated TRIAX App (TRIAX Mobile) on iOS or Android enabled devices. Using network connectivity, the App offers a quick and easy way for your clients to monitor their CCTV system anywhere, anytime. Set up is simple using QR codes and the latest P2P technology meaning complicated port forwarding is not required.

HD-TVI

- **High Image Quality** - HD-TVI delivers reliable high definition surveillance (up to 1080p Full HD) without video quality loss.
- **Lower Cost** - Employs the same installation method, cable and connectors as traditional analogue CCTV.
- **No Latency** - Monitor live video without time lags.
- **Analogue + IP Compatible** - HD-TVI recorders are capable of recording video from analogue and IP cameras meaning systems can be upgraded as required.
- **Flexible** - Fits into existing coaxial infrastructure and works alongside older analogue cameras
- **IP66** – Weatherproof
- **Plug & play** setup
- **Up to 50m** IR distance
- Motion detection

IP (internet protocol)

- **Superior image quality** - Full HD and higher megapixel IP cameras deliver superior image quality. The clearer the image, the easier it is to identify faces, objects and other details filmed by the camera.
- **Plug & play** - Just a single network cable is required. TRIAX IP cameras can operate over the network using Power over Ethernet (PoE). The NVR power the cameras over the CAT infrastructure.
- **Auto Detect** – TRIAX range of IP cameras automatically connect to our NVR's eliminating complex network settings.
- **Advanced Functionality** – Our NVR's feature advanced benefits such as face and perimeter detection.
- **IP66** – Weatherproof
- **Up to 50m** IR distance
- Motion detection

TRIAX[®] surveillance solutions

– help protect the safety and security of people and assets.

HD - TVI products

- **Fixed / Varifocal Dome**
1080p Full HD video with a fixed lens or varifocal lens.
- **Fixed / Varifocal Bullet**
1080p Full HD video with a fixed lens or varifocal lens.
- **THDR (DVR)**
Digital Video Recorder capable of recording video from analogue HD-TVI cameras.



IP products

- **Fixed Turret/Varifocal Dome**
2MP and 4MP cameras featuring PoE.
- **Fixed/Varifocal Bullet**
2MP and 4MP cameras featuring PoE.
- **NVR**
Network Video Recorder for recording high quality IP camera footage with advanced features.



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(CCTV)

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TRIAX® TVI Fixed and Varifocal Lens Cameras

1080p TVI Cameras



TERRESTRIAL
RECEPTION

SATELLITE
& FIBRE
RECEPTION

CABLE TV
(CATV)

HEADENDS
CAS SYSTEM
MODULATORS

CABLES &
CONNECTORS

OUTLETS
TAPS &
SPLITTER

INHOUSE
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Features and benefits

- 1/3 Inch CMOS progressive scan sensor 1080p
- Supports TVI high definition transfer
- 1080p @ 25/30 FPS TVI output
- DWDR, DNR
- Long Distance, No delay
- Single DC 12V supply, suitable for various applications
- TRIAX P2P mobile App
- IP66 – Weatherproof

TBV 2MP 1080p TVI Camera

Art. No. 301121

EAN Number
5702663011212



TDV 2MP 1080p TVI Camera

Art. No. 301123

EAN Number
5702663011236



TBF 2MP 1080p TVI Camera

Art. No. 301122

EAN Number
5702663011229



TDF 2MP 1080p TVI Camera

Art. No. 301124

EAN Number
5702663011243



TRIAX® TVI Fixed and Varifocal Lens Cameras

1080p TVI Cameras

What we mean by...

ALC, Back Focus, CMOS, ONVIF, etc.

- for explanations of these and many more of the technical terms and abbreviations we use in this catalogue, scan the code and take a look at our handy online glossary [www.triax.com/glossary]



Type:	TBV 2MP 1080p TVI	TBF 2MP 1080p TVI	TDV 2MP 1080p TVI	TDF 2MP 1080p TVI
Art. no.	301121	301122	301123	301124
CHARACTERISTICS				
Day & Night	Auto/Color/ B&W (IR_CUT)		Auto/Color/ B&W (IR_CUT)	
Digital Noise Reduction	2D/DNR		2D/DNR	
Frame Rate	25@PAL / 30@NTSCfps		25@PAL / 30@NTSCfps	
Image Sensor	2MP 1/2.8" IMX323		2MP 1/2.8" IMX323	
Lens	2.8...12mm Varifocal	3.6mm Fix	2.8...12mm Varifocal	4mm Fix
Min. Illumination	0.01 (@F1.2 AGC on) 0 (@IR)Lux		0.01 (@F1.2 AGC on) 0 (@IR)Lux	
Shutter speed	AUTO / 1/60, 1/50...1/100000sec.		AUTO / 1/60, 1/50...1/100000sec.	
Video output	1 ch BNC		1 ch BNC	
Video resolution	1920x1080 (@ 25/30FPS)Pixel		1920x1080 (@ 25/30FPS)Pixel	
White Balance	AWB 2200...10000K		AWB 2200...10000K	
Wide Dynamic Range	Digital WDR		Digital WDR	
ELECTRICAL				
IR Distance	50m	30m	50m	50m
Number of IR LEDs	4	2	3	3
OPERATIONAL				
DC Operating voltage	12VDC	12VDC	12VDC	12VDC
Humidity - operating	10 - 90%	10 - 90%	10 - 90%	10 - 90%
Operating temperature range	-20 - +50°C	-20 - +50°C	-20 - +50°C	-20 - +50°C
Power Consumption (typ.)	4W	3W	4W	4W
Weather Proof Rating	IP66	IP66	IP66	IP66
MECHANICAL				
Product Width	78mm	64mm	105mm	105mm
Product Height	78mm	64mm	105mm	105mm
Product Length	266mm	187mm	125mm	125mm
Colour	White	White	White	White
Packing QTY	1	1	1	1
Weight (g)	790g	450g	590g	590g

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TRIAX[®] THDR Digital Video Recorder

4, 8 or 16 Channel HD-TVI



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Warranty
2 Years

Features and Benefits

- Compact tribrid Analogue, TVI, IP DVR
- TRIAX P2P mobile App
- Support Coaxitron 500m control
- 1080p 25 fps recording
- TRIAX common menu structure
- Coax or CAT cabling supported
- Live view, Motion detection and Alarm activation
- Pre-installed HDD for convenience

THDR 8 + 2TB HDD

Art. No. 301146

EAN Number
5702663011465



THDR 4 + 1TB HDD

Art. No. 301145

EAN Number
5702663011458



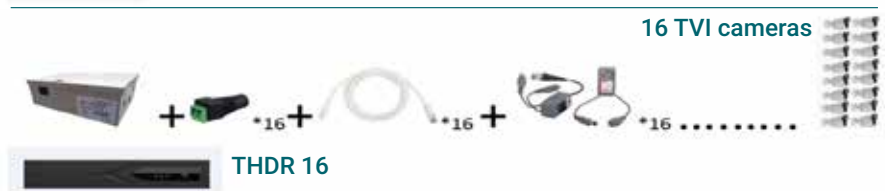
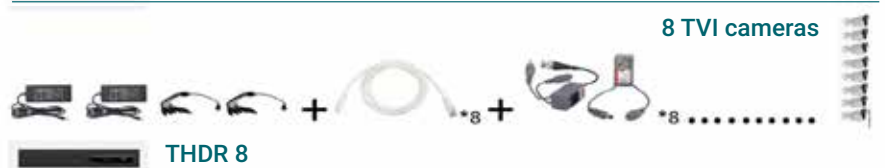
THDR 16 + 4TB HDD

Art. No. 301147

EAN Number
5702663011472



Example of
configurations
TVI cameras and
THDR recorders



TRIAX® THDR Digital Video Recorder

4, 8 or 16 Channel HD-TVI



Download the mobile surveillance app



Type:	THDR 4 + 1TB HDD	THDR 8 + 2TB HDD	THDR 16 + 4TB HDD
Art. no.	301145	301146	301147
CHARACTERISTICS			
Video Input	4 Ch	8 Ch	16 Ch
IP Input	Yes	Yes	Yes
Audio Compression	G.711A	G.711A	G.711A
Audio Input	1-Ch, RCA (2.0Vp-p, 1Kohm)	1-Ch, RCA (2.0Vp-p, 1Kohm)	1-Ch, RCA (2.0Vp-p, 1Kohm)
2-Way Audio Input	First Channel Re-use	First channel re-use	First Channel Re-use
HDMI / VGA Output	1 x CVBS, BNC (1.0Vp-p, 75 ohm) 1 x HDMI 1920 x 1080p 1 x VGA, 1920 x 1080, 1280 x 1024, 1366 x 768, 1024 x 768 resolution	1 x CVBS, BNC (1.0Vp-p, 75 ohm) 1 x HDMI 1920 x 1080p 1 x VGA 1920 x 1080, 1280 x 1024, 1366 x 768, 1024 x 768 Resolution	1 x CVBS, BNC (1.0Vp-p, 75 ohm) 1 x HDMI 1920 x 1080p 1 x VGA 1920 x 1080, 1280 x 1024, 1366 x 768, 1024 x 768 Resolution
Decoding Resolution	5Mpix, 4Mpix, 3Mpix, 1080P, 720P, WD1, D1	5Mpix, 4Mpix, 3Mpix, 1080P, 720P, WD1, D1	5Mpix, 4Mpix, 3Mpix, 1080P, 720P, WD1, D1
Video data rate	48k...8192kbpsMbps	48k...8192kbpsMbps	48k...8192kbpsMbps
Audio Output	1-Ch, RCA (Linear in 2Vpp @300ohm)	1-Ch, RCA (Linear in 2Vpp @300ohm)	1-Ch, RCA (Linear in 2Vpp @300ohm)
Audio Bit Rate	64Kbps	64Kbps	64Kbps
Dual Stream	Support	Support	Support
Synchronous Playback	4Ch	8Ch	16Ch
Alarm Input	4	8	8
Alarm Output	1	4	4
OPERATIONAL			
Compression Format	H. 264	H. 264	H. 264
Network Protocols	TCP/IP, UDP, HTTP, RTTP/RTSP	TCP/IP, UDP, HTTP, RTTP/RTSP	TCP/IP, UDP, HTTP, RTTP/RTSP
Interface	1 x SATA	1 x SATA	2 x SATA
Memory	1TB installed (6TB Max per SATA)	2TB installed (6TB Max per SATA)	4TB installed (6TB Max per SATA)
Serial Interface	1 x RS-485, Half Duplex	1 x RS-485, Half Duplex	1 x RS-485, Half Duplex
Power Consumption (typ.)	7 (ex. HDD)W	11 (ex. HDD)W	20 (ex. HDD)W
DC Operating voltage	12VDC	12VDC	12VDC
Operating temperature range	0 to +55°C	0 to +55°C	0 to +55°C
Humidity - operating	10 to 90%	10 to 90%	10 to 90%
CONNECTORS			
USB port	2 x USB 2.0	2 x USB 2.0	2 x USB 2.0
MECHANICAL			
Cabinet	Black	Black	Black
Packing QTY	1	1	1
Product Width	320mm	320mm	360mm
Product Depth	246mm	246mm	262mm
Product Height	48mm	48mm	48mm
Weight (g)	1310g	2250kg	2350kg

TERRESTRIAL
RECEPTION

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TRIAX[®] IP Turret, Dome and Bullet Cameras

2.0MP IP-Camera with fix- and varifocal lens - PoE



- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
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TBF 2IP & TTF 2IP features and benefits

- 1/2.8" - 2.0 Mega progressive scan CMOS
- H.265 / H.264 - 2.0MP Real time recording
- 2D/3D DNR, DWDR, Anti-fog
- Long Distance, No delay
- Support PoE, reset Button IR Array
- Support ONVIF
- Support intrusion detection
- Support Multiple detection zones, Corridor mode, ROI, 4 zones privacy masking, JPEG snapshot
- Support Text overlay (channel name, date & time, IOS / Android app)
- Dual-Stream
- IP66 - Weatherproof
- TRIAX P2P mobile App

TBV 2IP & TDV 2IP features and benefits

- 1/2.8" 2.0 Mega progressive scan CMOS
- H.265 / H.264 2MP Real time recording
- 2D/3D DNR, DWDR, Anti-fog
- Support PoE
- Support reset Button IR Array, TF Card
- Support ONVIF
- Support intrusion detection
- Support Multiple detection zones, Corridor mode, ROI, 4 zones privacy masking, JPEG snapshot
- Support Text overlay (channel name, date & time, IOS / android app)
- Dual-Stream - Triple-Stream on TDV 2IP
- IP66 - Weatherproof
- TRIAX P2P mobile App
- TDV 2IP is Vandal proof according to IK 10
- Long Distance, No delay

TBF 2MP IP Camera fix lens PoE



Art. No. 301125
EAN Number 5702663011250



TBV 2MP IP Camera var lens PoE



Art. No. 301129
EAN Number 5702663011298



TTF 2MP IP Camera fix lens PoE



Art. No. 301094
EAN Number 5702663010949



TDV 2MP IP Camera var lens PoE



Art. No. 301131
EAN Number 5702663011311



TRIAX[®] IP Turret, Dome and Bullet Cameras

2.0MP IP-Camera with fix- and varifocal lens - PoE



Type:	TBF 2MP IP Camera fix lens PoE	TTF 2MP IP Camera Fix Lens PoE	TBV 2MP IP Camera var lens PoE	TDV 2MP IP Camera var lens PoE
Art. no.	301125	301094	301129	301131
CHARACTERISTICS				
Day & Night	Auto/Color/ B&W (IR_CUT)	Auto/Color/ B/W (IR_CUT)	Auto/Color/ B&W (IR_CUT)	Auto/Color/ B&W (IR_CUT)
Digital Noise Reduction	2D/3D	2D/3D	2D/3D	2D/3D
Image Sensor	2MP 1/2.8" IMX323	2MP 1/2.8"	2MP 1/2.8" IMX323	2MP 1/2.8" IMX323
Image Settings	Sharpness, Brightness, Saturation, Contrast adj			
Input bit rate (max.)	32k...8Mbps	192k...12Mbps	32k...8Mbps VBR/CBR	32k...8Mbps VBR/CBR
Lens	3.6mm Fix	3.6mm Fix	2.8...12mm Varifocal	2.8...12mm Varifocal
Min. Illumination	0.01 (@F1.2 Color) 0 (@F1.2 IR)Lux	0.01 (@F1.2 Color) 0 (@F1.2 IR)Lux	0.01 (@F1.2 Color) 0 (@F1.2 IR)Lux	0.01 (@F1.2 Color) 0 (@F1.2 IR)Lux
Shutter speed	AUTO/ 1/25...10000sec.	AUTO/ 1/10...10000sec.	AUTO/ 1/25...10000sec.	AUTO/ 1/25...10000sec.
System Capability	ONVIF/CGI	ONVIF/CGI	ONVIF/CGI/GB28181	ONVIF/CGI/GB28181
Video resolution	1920x1080 (@ 25/30FPS) 704x576 (@25/30FPS)Pixel	1920x1080 (@ 25/30FPS) 704x576 (@25/30FPS)Pixel	1920x1080 (@ 25/30FPS) 704x576 (@25/30FPS)Pixel	1920x1080 (@ 25/30FPS) 704x576 1280x720 (@25FPS)Pixel Digital WDR
Wide Dynamic Range	Digital WDR	Digital WDR	Digital WDR	Digital WDR
Lens Mount	S (M12)	M12		
ELECTRICAL				
IR Distance	30m	30m	50m	30m
OPERATIONAL				
Compression Format	H.264 / H.265		H.264 / H.265	H.264 / H.265
DC Operating voltage	12VDC	12VDC	12VDC	12VDC
Functions	Anti-Fog on/off		Anti-Fog on/off	Anti-Fog on/off
Humidity - operating	10 - 90%	10 - 90%	10 - 90%	10 - 90%
Network Protocols	TCP/IP, UDP, HTTP, IGMP, ICMP, DHCP, RTP/RTPS, DNS, DDNS, FTP, PPPOE, UPNP, SMTP, SNMP	TCP/IP, UDP, HTTP, IGMP, ICMP, DHCP, RTP/RTPS, DNS, DDNS, FTP, PPPOE, UPNP, SMTP, SNMP	TCP/IP, UDP, HTTP, IGMP, ICMP, DHCP, RTP/RTPS, DNS, DDNS, FTP, PPPOE, UPNP, SMTP, SNMP	TCP/IP, UDP, HTTP, IGMP, ICMP, DHCP, RTP/RTPS, DNS, DDNS, FTP, PPPOE, UPNP, SMTP
Operating temperature range	-10 - +60°C	-10 - +60°C	-30 - +60°C	-30 - +60°C
Power Consumption (typ.)	3W	3W	5W	8W
Weather Proof Rating	IP66	IP66	IP66	IP66
Ethernet Interface	RJ45 10M/100M		RJ45 10M/100M	RJ45 10M/100M
IK rating (EN 62262)				IK 10
MECHANICAL				
Product Width	64mm	93mm	78mm	mm
Product Height	64mm	105mm	78mm	121mm
Product Length	187mm	122mm	266mm	154mm
Colour	White	White	White	White
Packing QTY	1	1	1	1
Weight (kg)	0.450kg	0.390kg	0.590kg	0.790kg

TERRESTRIAL
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SATELLITE
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TRIAX[®] IP Turret, Dome and Bullet Cameras

4.0MP IP-Camera with fix- and varifocal lens - PoE



- TERRESTRIAL RECEPTION
- SATELLITE & FIBRE RECEPTION
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- INHOUSE CONNECTIVITY
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TBF 4IP & TTF 4IP features and benefits

- 1/3" - 4.0 Mega progressive scan CMOS
- H.264 H.265 4.0 Mega Real time recording
- 2D/3D DNR, DWDR, Anti-fog
- Long Distance, No delay
- Support PoE, Support reset Button IR Array
- Support ONVIF
- Support intrusion detection
- Support Multiple detection zones, Corridor mode, ROI, 4 zones privacy masking, JPEG snapshot
- Support Text overlay (channel name, date & time, IOS / Android app)
- Dual-Stream on TBF 4IP
- Triple-Stream on TTF 4IP
- IP66 Weatherproof
- TRIAX P2P mobile App

TBV 4IP & TDV 4IP features and benefits

- 1/3" - 4.0 Mega progressive scan CMOS
- H.264 H.265 4.0 Mega Real time recording
- 2D/3D DNR, DWDR, Anti-fog
- Long Distance, No delay
- Support PoE, Support reset Button IR Array, TF Card
- Support ONVIF
- Support intrusion detection
- Support Multiple detection zones, Corridor mode, ROI, 4 zones privacy masking, JPEG snapshot
- Support Text overlay (channel name, date & time, IOS / Android app)
- Triple-Stream on TBV 4IP
- IP66 Weatherproof
- TRIAX P2P mobile App
- TDV 4IP is Vandal proof according to IK 10



TBF 4MP IP Camera fix lens PoE

Art. No. 301126
EAN Number 5702663011267



TBV 4MP IP Camera var lens PoE

Art. No. 301130
EAN Number 5702663011304



TTF 4MP IP Camera fix lens PoE

Art. No. 301128
EAN Number 5702663011281



TDV 4MP IP Camera var lens PoE

Art. No. 301132
EAN Number 5702663011328



TRIAX® IP Turret, Dome and Bullet Cameras

4.0MP IP-Camera with fix- and varifocal lens - PoE



Type:	TBF 4MP IP Camera fix lens PoE	TTF 4MP IP Camera fix lens PoE	TBV 4MP IP Camera var lens PoE	TDV 4MP IP Camera var lens PoE
Art. no.	301126	301128	301130	301132
CHARACTERISTICS				
Day & Night	Auto/Color/ B&W (IR_CUT)	Auto/Color/ B&W (IR_CUT)	Auto/Color/ B&W (IR_CUT)	Auto/Color/ B&W (IR_CUT)
Digital Noise Reduction	2D/3D	2D/3D	2D/3D	2D/3D
Image Sensor	4MP 1/3" OV4689	4MP 1/3" OV4689	4MP 1/3" OV4689	4MP 1/3" OV4689
Image Settings	Sharpness, Brightness, Saturation, Contrast adj	Sharpness, Brightness, Saturation, Contrast adj	Sharpness, Brightness, Saturation, Contrast adj	Sharpness, Brightness, Saturation, Contrast adj
Input bit rate (max.)	32k...8Mbps	32k...8Mbps	32k...8Mbps	32k...8Mbps
Lens	3.6mm Fix	3.6mm Fix	2.8...12mm Varifocal	2.8...12mm Varifocal
Memory Card				Micro SD/SDHC/SDXC <128GB
Min. Illumination	0.1 (@F1.2 Color) 0 (@F1.2 IR)Lux	0.1 (@F1.2 Color) 0 (@F1.2 IR)Lux	0.1 (@F1.2 Color) 0 (@F1.2 IR)Lux	0.1 (@F1.2 Color) 0 (@F1.2 IR)Lux
Shutter speed	AUTO / 1/25...10000sec.	AUTO / 1/25...10000sec.	AUTO / 1/25...10000sec.	AUTO / 1/25...10000sec.
System Capability	ONVIF / CGI	ONVIF / CGI	ONVIF / CGI	ONVIF / CGI
Video resolution	2560x1440 (@25FPS) 704x576 (@20FPS) 1280x720 (@25FPS)Pixel	2560x1440 (@25FPS) 704x576 (@20FPS) 1280x720 (@25FPS)Pixel	2560x1440 (@25FPS) 704x576 (@20FPS) 1280x720 (@25FPS)Pixel	2560x1440 (@25FPS) 704x576 (@20FPS) 1280x720 (@15FPS)Pixel
Wide Dynamic Range	Digital WDR	Digital WDR	Digital WDR	Digital WDR
Lens Mount	S (M12)	S (M12)		
ELECTRICAL				
IR Distance	30m	30m	50m	30m
OPERATIONAL				
Compression Format	H.264 / H.265	H.264 / H.265	H.264 / H.265	H.264 / H.265
DC Operating voltage	12VDC	12VDC	12VDC	12VDC
Humidity - operating	10 - 90%	10 - 90%	10 - 90%	10 - 90%
Network Protocols	TCP/IP, UDP, HTTP, IGMP, ICMP, DHCP, RTP/RTPS, DNS, DDNS, FTP, PPPOE, UPNP, SMTP, SNMP	TCP/IP, UDP, HTTP, IGMP, ICMP, DHCP, RTP/RTPS, DNS, DDNS, FTP, PPPOE, UPNP, SMTP	TCP/IP, UDP, HTTP, IGMP, ICMP, DHCP, RTP/RTPS, DNS, DDNS, FTP, PPPOE, UPNP, SMTP, SNMP	TCP/IP, UDP, HTTP, IGMP, ICMP, DHCP, RTP/RTPS, DNS, DDNS, FTP, PPPOE, UPNP, SMTP
Operating temperature range	-10 - +60°C	-30 - +60°C	-10 - +60°C	-30 - +60°C
Power Consumption (typ.)	3W	4.5W	5W	8W
Weather Proof Rating	IP66	IP66	IP66	IP66
Ethernet Interface	RJ45 10M/100M	RJ45 10M/100M	RJ45 10M/100M	RJ45 10M/100M
MECHANICAL				
Product Width	64mm	mm	78mm	mm
Product Height	64mm	93mm	78mm	121mm
Product Length	187mm	122mm	266mm	154mm
Packing QTY	1	1	1	1
Colour	White	White	White	White
Weight (g)	450g	390g	790g	1150g
Remarks				Vandal proof according to IK 10

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TRIAX[®] NVR Digital Network Video Recorder

4, 8 or 16 Channel IP



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Warranty
2 Years



Features and Benefits

- Compact IP NVR
- TRIAX P2P mobile App
- Support ONVIF
- Compatible with High Resolution 4MP cameras
- TRIAX common menu structure
- Live view, Motion detection and Alarm activation
- Choice of HDD



Accessories pack included



Download the mobile surveillance app



Download on the
App Store



Download for
Android

NVR - 4 Channel IP digital recorder



Art. No. 301046

EAN Number
5702663010468



NVR - 8 Channel IP digital recorder



Art. No. 301047

EAN Number
5702663010475



NVR - 16 Channel IP digital recorder



Art. No. 301048

EAN Number
5702663010482



TRIAX® NVR Digital Network Video Recorder

4, 8 or 16 Channel IP

Type	NVR 4	NVR 8	NVR 16
Art. No.	301046	301047	301048
Operating System	Embedded LINUX		
Pentaplex Function	Live monitoring, recording, playback, back up & remote access		
Control Mode	Front panel, USB mouse, IR remote control, network		
VIDEO			
IP Camera Input	4Ch. (40Mbps)	8Ch. (80Mbps)	16Ch. (160Mbps)
Decoding Capability	4Ch.D1@25fps 4Ch. 720p@25fps 4Ch. 1080p@25fps	8Ch.D1@25fps 8Ch. 720p@25fps 6Ch. 1080p@25fps	16Ch.D1@25fps 13Ch. 720p@25fps 6Ch. 1080p@25fps
Support Protocol	ONVIF	ONVIF	ONVIF
Standard	PAL (625 lines, 50f/s Hz), NTSC (525 lines, 60 f/s 60Hz)		
Output	1 CVB, BNC (1.0Vp-p, 75Ω) - 1 x HDMI, 1.3a support 1920 x 1080 Resolution 1 x VGA, 1920 x 1080, 1440 x 900, 1280 x 1024, 1024 x 768, 800 x 600 Resolution		
AUDIO			
Output	1 x BNC (2.0Vpp @300Ω)		
Two-way	1st. Channel reuse		
DISPLAY			
IP Resolution	5MP/3MP/1080p/UXGA/720p/VGA/4CIF/DCF/2CIF/CIF/QCIF		
Frame	1 ~ 30fps		
Tour Display	Support		
Privacy Masking	For zone for privacy masking for each channel		
RECORDING			
Video Compression	MPEG 4 / H.264 Main Profile @ level 4.2		
Audio Compression	G.711A		
Image Encoding	Adjustable encoding quality, variable code stream / fixed code stream		
Dual Stream	Support		
Recording Mode	Manual, auto, motion detection, stop		
VIDEO DETECTION & ALARM			
Trigger Events	Recording, PTZ, Tour, Email		
Motion Detection	396 (22x18) detection zone, variable sensitivity levels		
Capture	JPEG capture		
PLAYBACK RESOLUTION			
Max Playback	1/2/4 Ch.	1/2/4/8 Ch.	1/2/4/8/16 Ch.
Backup mode	USB, HDD, Network Backup		
NETWORK			
Ethernet	1 x RJ45 socket (10M/100M/1000M)		
Network Protocol	TCP/IP, UDP, HTTP, RTTP/RTSP		
Network Functions	DHCP, PPOE, DDNS, SMTP, SNTP, FTP, UPnP, P2P, 3G		
Remote Operations	Monitoring, PTZ control, playback, system setting, file download, log information		
Smart Phone	iPhone, iPad, Android		
SATA	1	2	2
Capacity	6TB max per SATA	6TB max per SATA	6TB max per SATA
HDD Management	Hard disk hibernation technology, HDD faulty alarm		
EXTERNAL INTERFACE			
USB Interface	2 USB 2.0 ports		
RS 485	Standard RS 485, half duplex. PTZ control		
PoE Function	4Ch.	8Ch.	8Ch.
	IEEE 802.3af RJ45 (10M/100M)		
ENVIRONMENT			
Power Supply	48 VDC 1.35A (PoE)		
Consumption	6W (without HDD & PoE)	7W (without HDD & PoE)	8W (without HDD & PoE)
Working Temperature	0°C ~ +55°C		
Working Humidity	10 ~ 90% RH		
Dimensions (mm)	45(H) x 215 (W) x235 (D)	1U: 48(H) x 360 (W) x260 (D)	1U: 48(H) x 360 (W) x260 (D)
Weight (Kg)	0.900 (without HDD)	1.500 (without HDD)	1.500 (without HDD)

- TERRESTRIAL RECEPTION
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TRIAX[®] CCTV Accessories

For a professional installation



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WD Hard Drives features and benefits

- Built for 24/7 always on high temperature surveillance systems
- Improved performance
- Built for compatibility with industry leading chassis and chip set manufacturers for seamless integration

- Optimized to support up to 32 high definition surveillance cameras
- Lower power consumption, crucial in high temperature always on surveillance

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1TB WD10PURX WD Purple™

Interface: SATA - 6GB/S
Form Factor: 3.5 inch

Art. No. 301057

EAN Number
5702663010574



2TB WD20PURX WD Purple™

Interface: SATA - 6GB/S
Form Factor: 3.5 inch

Art. No. 301058

EAN Number
5702663010581



4TB WD40PURX WD Purple™

Interface: SATA - 6GB/S
Form Factor: 3.5 inch

Art. No. 301059

EAN Number
5702663010598

Converters



VAP B1 Converter Video Audio Power RG59 > CAT Balun Pair

BNC, Phono, DC (Male), RJ-45 / BNC
(on 80mm fly lead), Phono, DC (Female),
RJ-45

Remarks: Enables CAT cable to be used
between CCTV camera and DVR for
video, audio and power

Art. No. 301078

EAN Number
5702663010789

TRIAX® CCTV Accessories

- for a professional installation

Power plug



MPP 1 Male Power Plug

Connectors: 1 x DC-male/2 x Screw terminal
Plugs into CCTV camera to deliver power from source

Art. No. 301073

EAN Number
5702663010734

Power Extension DC Cable



DC1x4 Split Power Extension DC Cable

Connectors: 1 x Female - 4 x Male
Splits DC voltage upto 4 cameras

Art. No. 301071

EAN Number
5702663010710

Power Supply box for CCTV



PSU 1218/18 12VDC - 18A PTC Protection

Art. No. 301143

EAN Number
5702663011434



PSU 125 12VDC - 5A Single O/Put

Art. No. 301144

EAN Number
5702663011441

Type	PSU 1218/18 12VDC / 18A - PTC Protection	PSU 125 12VDC - 5A Single O/Put
Art. No.	301081	301144
Ports for connecting cameras	18 *)	1
DC	12 VDC	12 VDC
Amp	18 x 1A	5
ENVIRONMENT		
Power Consumption	100-240V / 50-60Hz	100-240V / 50-60Hz
Product Width	255 mm	117 mm
Product Depth	208 mm	60 mm
Product Height	90 mm	35 mm
Weight (Kg)	2.3	0.350
Remarks	Connects upto 18 CCTV cameras	Use with DC 1x4 Split (art. no. 301071) to provide power for CCTV cameras up to 5 amps.

* Depending on camera power requirements.

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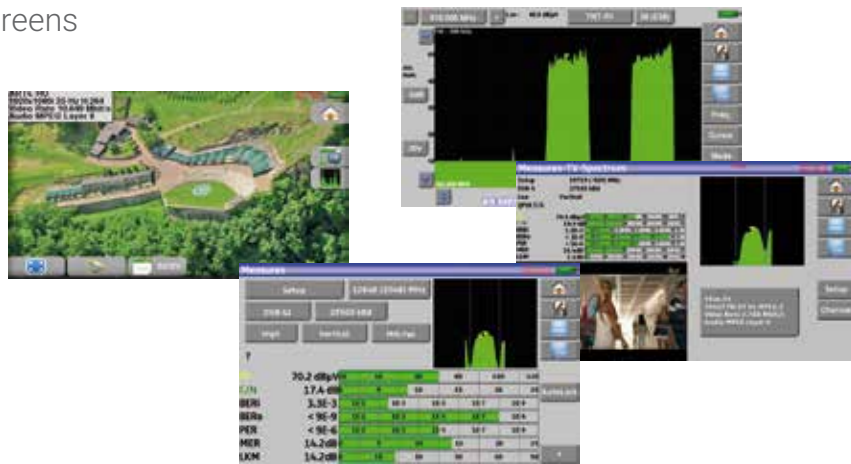
TRIAX[®] Meters

measurement instruments

Content	Page
Satellite, Terrestrial, Cable	
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Optical power meter	
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MCT Screens



UPM Screens



TRIAX[®] Meters

measurement instruments



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The latest technology for the perfect installation

Testing and measurement is an essential part of today's digital distribution of high quality television and data signals. TRIAX offers an array of satellite, antenna, cable and fibre optic testing and measurement instruments for installers, allowing you to install a distribution network that's always running at peak performance.

For service purposes and fault finding on existing networks, the right instrument is more than half the job. When commissioning the installation of a distribution network, insist on a thorough test report from the installer. This is the only way to make sure no hidden flaws will come back to haunt you later, and is also a valuable tool in later service cases.



TRIAX[®] Meters

measurement instruments

FEATURE COMPARISON CHART - TRIAX MCT RANGE

Selection guide	MCT 048	MCT 049	MCT 059	MCT 08X	MCT 08X
Art. no.	812950	812960	812970	81289x	81289x
TERRESTRIAL FEATURES					
Frequency range 45 to 900 MHz	X				
Frequency range 5 to 900 MHz		X	X		
DAB / DAB+ measurements					
DVB-T, DVB-T2 measurements	X	X	X		
DVB-T2 Lite measurements		X	X		
DVB-C, DVB-C2 measurements		X	X		
LTE function					
Real time echoes measurement with zoom	X	X	X		
Spectrum analysis in "expert" mode					
SATELLITE FEATURES					
Frequency range 900 to 2200 MHz	X	X	X		
DVB-S, DVB-S2	X	X	X		
SAT finder with SAT identification	X	X	X		
Spectrum analysis in "expert" mode					
OPTICAL FEATURES					
Optical power measurement			X		
Optical to RF conversion			X		
OTHERS FUNCTIONS					
50 channels measurement, text or graphical mode		TXT	TXT		
Constellation diagram		X	X		
Measurement storage		X	X		
Monitoring in graphical mode					
Triple display : measurement, picture, mini spectrum					
Measurement location storage		X	X		
Data export and saving on USB stick		X	X		
Integrated electronic compass					
PVR					
GPS and Multistream					
IN / OUT					
Interface USB A, ETHERNET	X	X	X		
Interface USB mini B					
HDMI output					
Input Wi-Fi antenna					
Input / output ASI					
Warranty	2 YEARS	2 YEARS	2 YEARS		
MECHANICAL FEATURES					
Steel housing	X	X	X		
Aluminium housing					
Touch screen display 7" TFT	X	X	X		
Touch screen display 10" TFT					
Kit including a sun protector + rain protector + belt hanger (sun protector and belt hanger by default)	0	0	0		
Car cigar lighter adapter	0	0	0		
Rain protector	0	0	0		

X = Feature available by default

0 = Feature available on option

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TRIAX® MCT Meter

the ideal companions for DVB T/T2/T2Lite - DVB-S/S2 - DVB-C in SD and HD Quality



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MCT 048 & MCT 049 - Features and benefits

With its panoramic 7-inch display, you experience the full benefit of touch screen technology: intuitive access to functions, menus and measurements. The rugged new housing with protective bumpers is designed for extensive field use and protecting the sensitive parts of the instrument.

- Touch screen, compact, robust and easy to use
- All digital measurements in DVB-T/T2/T2Lite (MCT 049 only) , DVB-S/S2, DVB-C (MCT 049 only)
- Panoramic LCD, with display of MPEG2 and MPEG4 TV programmes
- Checksat and tool to align antennas
- USB and ethernet interface



MCT 048 DVB-T/T2; DVB-S/S2 combi meter

Art. No. 812950

EAN Number
5702668129509



MCT 049 DVB-T/T2/T2 Lite; DVB-S/S2 - DVB-C/C2 combi meter

Art. No. 812960

EAN Number
5702668129608

MCT 048/049/059 accessories

- Art. No. 812953 Sun & rain protector + belt hanger kit for MCT 048/049/059 with S/N < 3000
- Art. No. 812957 Sun & rain protector + belt hanger kit for MCT 048/049/059 with S/N > 3000
- Art. No. 812952 Rain protector MCT 048/049/059
- Art. No. 812956 Sun protector for MCT 048/049/059 with S/N < 3000
- Art. No. 812958 Sun protector for MCT 048/049/059 with S/N > 3000
- Art. No. 812912 Car cigar lighter adaptor



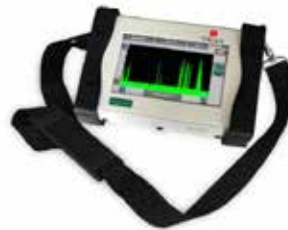
TRIAX® MCT 048, MCT049 & MCT 059

for DVB-T/T2/T2Lite - DVB-S/S2 - DVB-C in SD and HD Quality

MCT 059 - Features and benefits

The MCT 059 has the same features as the MCT 049, plus an optical input which can be used for measuring signals from fibre. The optical to RF converter allows all measurements and functions on the optical signal, just like the terrestrial or satellite regular signal.

- Touch screen, compact, robust and easy to use
- Panoramic LCD with display of MPEG2 and MPEG4 TV programmes
- Check alignment of antennas
- Optical input for terrestrial and satellite, including optical power measurement
- USB for data saving & export



MCT 059 DVB-T/T2/T2Lite/ S/S2 and C/C2 Optical Measurement

Art. No. 812970

EAN Number
5702668129707

Type:	MCT 048 meter	MCT 049 meter	MCT 059 meter
Art. no.	812950	812960	812970
CHARACTERISTICS			
Audio decoding	MPEG-1, MPEG-2, AAC, HE AAC, Dolby Digital, Dolby Digital Plus		
Video decoding	MPEG-2 SD & MPEG-4 HD (H264)		
MER	DVB-T: (5...35dB) (5...35dB) DVB-S: (0...20dB) DVB-S2: (0...20dB)	DVB-T2: (5...35dB) DVB-S: (0...20dB) DVB-S2: (0...20dB) DVB-C: (20...40dB) DVB-C2 (5...35dB)	DVB-T: (5...35dB) DVB-T2: (5...35dB) DVB-S: (0...20dB) DVB-S2: (0...20dB) DVB-C: (20...40dB) DVB-C2 (5...35dB)
Colour-TV standard	DVB-T/T2, BG, I, L, MN, Carrier, DVB-S/S2, DSS, PAL, SECAM, NTSC	DVB-T/T2, BG, I, L, MN, Carrier, DVB-S/S2, DSS, PAL, SECAM, NTSC	DVB-T/T2/T2 lite/H, BG, D, K, I, L, M, N, FM, DVB-C/C2, PAL, SECAM, NTSC, DVB-S, DVB-S2, DSS
Sound reproduction	MPEG-1, MPEG-2, AAC, HE AAC, Dolby® Digital, Dolby® Digital Plus		
FREQUENCY			
Measurement Terrestrial	DVB-T/T2	DVB-T/T2/T2Lite	DVB-T/T2/T2 Lite
Measurement Satellite	DVB-S/S2	DVB-S/S2	DVB-S/S2
Frequency range	45-900 / 900-2200MHz	5 ... 2200MHz	5 ... 2200MHz
Measurement sensitivity VHF/UHF	20...120 (30...120 @5...45MHz)dBµV		
Measurement sensitivity SAT	30...110 dBµV		
Measuring accuracy	±2dB +/- 0.05dB/°CdB		
OPERATIONAL			
Battery	Lithium Ion (25W)	Lithium Ion (25W)	Lithium Ion (25W)
Remote voltage - DVB-T/SAT	5/13/18/24V, 500 mA max	5/13/18/24V, 500 mA max	5/13/18/24V, 500 mA max (300mA max. for 24V)
Remote voltage - SAT	13V/18V, 500mA max	13V/18V, 500mA max	13V/18V, 500mA max
AC Supply voltage	100...240VAC	100...240VAC	100...240VAC
DC Operating voltage	15VDC	15VDC	15VDC
DC Current consumption (typ.)	1000mA	1000mA	1000mA
External PSU	Included	Included	Included
Accessories included	Main wall plug adapter, user manual CD, carrying belt and carrying pouch	Main wall plug adapter, user manual CD, carrying belt and carrying pouch	Main wall plug adapter, user manual CD, carrying belt and carrying pouch, F/BNC adapter, F/F right angle cable, FC/FC optical cable, FC/SC optical cable, SC/SC to APC & FC/FC connectors
Temperature - operating	-5 ... +45°C	-5 ... +45°C	-5 ... +45°C
Temperature - storage	-10 ..+60°C	-10 ..+60°C	-10 ..+60°C
CONNECTORS			
Connector IN	F-female / BNC	F-female / BNC	F-female / BNC
MECHANICAL			
Remarks	Delivered with carry bag	Delivered with carry bag	Delivered with carry bag
Display	7" color LCD 16:9 with back light		
Dimensions product (H x D x W)	165 x 65 x 250mm	165 x 65 x 250mm	165 x 65 x 250mm
Weight (including batterie and pouch)	1.35 Kg	1.35 Kg	1.35 Kg

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TRIAX® 1200HD & SPM 1600HD Meters

DVB-S/S2 measurement instruments



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SPM 1600 HD Standard Features and benefits

- Satellite measuring receiver with 5.7" TFT
- Frequency range 910 to 2,150 MHz
- Level/BER/MER/Packet errors for DVB-S/S2
- MPEG 4 decoder with 1 x Common-Interface (CI) and DVI out/NIT evaluation
- Analyse function full-band/narrow-band
- Scan function for satellite and transponder search
- USB for data transfer, screenshots and software updates. DVI out, DiSEqC 1.0/1.1/1.2/2.0
- Unicable, JESS, programming function for addressable antenna outlets
- Lithium ion battery 7.4 V/6.6 Ah
- Transport case, measuring cable, external power supply, USB stick

SPM 1600 HD Lead Features and benefits

Same as SPM 1600 »STANDARD« plus

- Constellation diagram and optical measurement module



**SPM 1600 HD Standard,
Satellite meter DVB-S/S2**

Art. No. 304604

EAN Number
5702663046047



**SPM 1600 HD Lead,
Satellite meter DVB-S/S2**

Art. No. 304605

EAN Number
5702663046047

TRIAX[®] Meters

measurement instruments

Accessories



OMM 1600 Optical input for SPM 1600

Art. No. 304580

EAN Number
5702663045804

Optical input for SPM 1600



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Type:	SPM 1600 HD Standard Satellite meter DVB-S/S2	SPM 1600 HD Lead Satellite meter DVB-S/S2 incl. OMM 1600 & K-Diagram
Art. no.	304604	304605
CHARACTERISTICS		
Audio decoding	MPEG-2, MPEG-4, AAC	
Video decoding	MPEG-2 (SD) & MPEG-4 (HD-H.264)	
Modulation scheme	DVB-S: (QPSK) DVB-S2: (QPSK, 8SPK)	
Symbol Rate (S/R)	DVB-S: (2...45) DVB-S2 (2...45)Mbit/s	
BER/CBER/LBER/VBER	DVB-S: (VBER 10-2...10-8, LBER 10-2...10-8)	
MER	DVB-S: (2...20dB) DVB-S2: (1...20dB)dB	
Sound reproduction	AAC, Dolby Digital AC3, Dolby Digital Plus	
FREQUENCY		
Measurement Range	DVB-S/S2	DVB-S/S2
Frequency range	910...2150MHz	910...2150MHz
Measurement sensitivity SAT	30...100dBμV	30...100dBμV
Measuring accuracy	+/- 2.0 (20°C) +/- 2.5 (0 -40°C)dB	
ELECTRICAL		
Impedance	75 Ω	75 Ω
OPERATIONAL		
Battery	7.2V/6.6Ah LI-ION (min. 3.5 hours operation)	7.2V/6.6Ah LI-ION (min. 3.5 hours operation)
LNB supply voltage	14/18 V, 500 mA max	14/18 V, 500 mA max
AC Supply voltage		
DC Operating voltage	11...15 /2.5AVDC	11...15 /2.5AVDC
DC Current consumption (typ.)	2500mA	2500mA
External PSU	Included	Included
Accessories included	Transport Case, Protective bag, IEC measuring cable 75 Ohm, USB stick, manual	
CONNECTORS		
Connector IN	IEC-female (IEC 60 169-2)	IEC-female (IEC 60 169-2)
MECHANICAL		
Packing QTY	1	1
Display	5.7" color LCD TFT	5.7" color LCD TFT
Dimensions product (H x D x W)	266 x 70 x 164 mm	266 x 70 x 164 mm
Weight (including batterie)	1.3 kg	1.3 kg

TRIAX® CPM 1700 Meters

DVB-T/T2 - DVB-S/S2 - DVB-C/C2



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CPM 1700 Standard - Features and benefits

CATV measuring receiver with 5.7" TFT

- Frequency range 5 to 867 MHz
- Return channel, FM, TV analogue, DVB-C/T/T2.
- Level/BER/MER/Packet errors/constellation diagram for DVB-C/-T/-T2
- MPEG 4 decoder with 1 × Common-Interface (CI) and DVI out/NIT evaluation
- Spectrum analyser for all ranges

- TILT function
- DOCSIS analyser (DOCSIS 3.0)
- EMI measurement
- USB for data transfer, screenshots and software updates
- Lithium ion battery 7.4 V/6.6 Ah
- Transport case, measuring cable, external power supply, USB stick



CPM 1700 Standard DVB-C meter

Art. No. 304585

EAN Number
5702663045859



CPM 1700 WORKX DVB-C meter

Art. No. 304586

EAN Number
5702663045866



CPM 1700 LEAD DVB-C/T2 meter

Art. No. 304587

EAN Number
5702663045873

CPM 1700 WORKX - Features and benefits

Same as CPM 1700 »STANDARD« plus

- S/N measurement module for evaluation of ATV signals and Optical measurement module

CPM 1700 Lead - Features and benefits

Same as CPM 1700 »WORKX« plus

- expanded CATV frequency range up to 1,214 MHz

Accessories



OMM 1700 Optical input for CPM 1700 Standard

Art. No. 304576

EAN Number
5702663045767

TRIAx® CPM 1700 Meters

DVB-T/T2 - DVB-S/S2 - DVB-C/C2

Accessories



S/N module for CPM 1700 Standard

Art. No. 304577

EAN Number
55702663045774



Option DVB-T2 for CPM 1700 Standard, Workx and Lead

Art. No. 304589

EAN Number
5702663045897



CATV frequency range 1200 MHz for CPM1700 Standard & Workx

Art. No. 304588

EAN Number
5702663045880

Bag for CPM 1700 green

Art. No. 304591

EAN Number
5702663045910

Type:	CPM 1700 Standard DVB-C meter 304585	CPM 1700 WORKX DVB-C meter 304586	CPM 1700 LEAD DVB-C meter 304587
CHARACTERISTICS			
Modulation scheme	DVB-C: 16...256 QAM	DVB-C: 16...256 QAM	DVB-C: (16...256 QAM) DVB-T2: (QPSK, 16QAM, 64QAM, 256QAM)
Symbol Rate (S/R)	DVB-C: (0.5...7.2)Mbit/s	DVB-C: (0.5...7.2)Mbit/s	DVB-C: (0.5...7.2)Mbit/s
Guard Interval			DVB-T2: 1/4, 19/128, 1/8, 19/256, 1/16, 1/32, 1/128
FFT mode			DVB-T2: (1k, 2k, 4k, 8k, 16k, 32k)
BER/CBER/LBER/VBER	DVB-C: (BER: 1.00x10-8 / 1.00x10-9)	DVB-C: (BER: 1.00x10-8 / 1.00x10-9)	DVB-C: (BER 1.00x10-8 / 1.00x10-9) DVB-T: (CBER: 1.00x10-6, VBER: 1.00x10-8) DVB-T2: (CBER: 1.00x10-6, VBER: 1.00x10-8)
MER	DVB-C: (≤40dB)dB	DVB-C: (≤40dB)dB	DVB-T: (≤35dB) DVB-T2: (≤35dB) DVB-C: (≤40dB)dB
Colour-TV standard	Standards B/G, I, L, M/N, D/K/ PAL/SECAM/NTSC	Standards B/G, I, L, M/N, D/K/ PAL/SECAM/NTSC	Standards B/G, I, L, M/N, D/K/ PAL/SECAM/NTSC
Sound reproduction	Build in speaker, Headphone connection, Acoustic level indicator		
FREQUENCY			
Measurement Range A	DVB-C	DVB-C	DVB-C
Measurement Range B	CATV	CATV	DVB-T/T2
Frequency range	5...867MHz	5...867MHz	5...1050MHz
Measurement sensitivity VHF/UHF	25...120dBμV	25...120dBμV	25...120dBμV
Measuring accuracy	±1.5 (20°C)	±1.5 (20°C)	±1.5 (20°C)
OPERATIONAL			
Battery	Li-Ion, 7.2 V/6.6 Ah	Li-Ion, 7.2 V/6.6 Ah	Li-Ion, 7.2 V/6.6 Ah
DOCSIS	3.0	3.0	3.0
DC Operating voltage	11...15VDC	11...15VDC	11...15VDC
DC Current consumption (typ.)	<3000mA	<3000mA	<3000mA
Power Consumption (typ.)	<36W	<36W	<36W
External PSU	Included	Included	Included
Temperature - operating	0...+45°C	0...+45°C	0...+45°C
Temperature - storage	-10...+55°C	-10...+55°C	-10...+55°C
CONNECTORS			
Connector IN	IEC-female (IEC 60 169-2)	IEC-female (IEC 60 169-2)	IEC-female (IEC 60 169-2)
MECHANICAL			
Packing QTY	1	1	1
Display	5.7" color LCD TFT	5.7" color LCD TFT	5.7" color LCD TFT
Dimensions product (H x D x W)	297 x 84 x 206mm	297 x 84 x 206mm	297 x 84 x 206mm
Weight (including batterie)	2.5 Kg	2.5 Kg	2.5 Kg

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TRIAX® UPM 2350 combi meter

DVB-T/T2 - DVB-S/S2 - DVB-C/C2



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UPM 2350 Standard - Features and benefits

- Combo measuring meter with 5.7" TFT
- Frequency range TV 5 to 867 MHz, SAT 910 to 2,150 MHz
- Level and image representation for analogue TV signals, FM, return channel
- Level/BER/MER/Packet errors/constellation diagram for DVB-S/-S2/-C/-T/-T2
- MPEG 4 decoder with 1 x Common-Interface (CI)/NIT evaluation

- Spectrum analyser for all ranges
- TILT function – EMI measurement
- USB for data transfer, screenshots and software updates, DVI out
- DiSEqC 1.0/1.1/1.2/2.0, UNICABLE, JESS, programming function for addressable antenna outlets
- Lithium ion battery 7.4 V/6.6 Ah
- Transport case, measuring cable, external power supply, USB stick



UPM 2350 Standard combi meter

Art. No. 304592

EAN Number
5702663045927



UPM 2350 WORKX meter w. optical module

Art. No. 304593

EAN Number
5702663045934



UPM 2350 LEAD combi meter w. expanded CATV frequency rang

Art. No. 304594

EAN Number
5702663045941

UPM 2350 WORKX - Features and benefits

Same as UPM 2350 »STANDARD« plus

- Optical measurement module and DAB/DAB+ measurement module

UPM 2350 Lead - Features and benefits

Same as UPM 2350 »WORKX« plus

- expanded CATV frequency range up to 1,214 MHz
- S/N measurement module for evaluation of ATV signals

TRIAX® UPM 2350 Meters

DVB-T/T2 - DVB-S/S2 - DVB-C/C2

Accessories

UPM 2350 STANDARD options

- Art. No. 304595 DAB/DAB+ module
- Art. No. 304596 S/N module for evaluation of ATV signals
- Art. No. 304601 OMM optical input module

UPM 2350 STANDARD, WORKX & LEAD options

- Art. No. 304603 Bag for UPM 2350 green for protection transportation
- Art. No. 304602 WLAN option for UPM 2350 Network scan with reception level measurement
- Art. No. 304598 DVB-T2 module - HEVC image decoder for all UPM 2350 instruments

UPM 2350 STANDARD & WORKX options

- Art. No. 304597 Frequency 1200 MHz module - expansion module up to 1.214 MHz

Type:	UPM 2350 START combi meter	UPM 2350 WORKX meter w. opt.	UPM 2350 LEAD combi meter
Art. no.	304592	304593	304594
OPTICAL CHARACTERISTICS			
Measurement sensitivity Optical		40...55dBm	40...55dBm
CHARACTERISTICS			
Audio decoding	MPEG-2, MPEG-2 AAC, MPEG-4, Dolby Digital, Doloby Digital +, AC3, (Opt: DAB/DAB+ audio dec., Chinese character set GB2312)		
Video decoding	MPEG-2, MPEG-4, ITU-T H.264, (Opt: MPEG-H L5.1, AVS/AVS+)		
Modulation scheme	DVB-T: (COFDM, QPSK, 16QAM, 64QAM) / DVB-T2: (COFDM, QPSK, 16QAM, 64QAM, 256QAM) DVB-S: (QPSK) DVB-S2: (QPSK, 8SPK, 16APSK, 32APSK) / DVB-C: (16...256QAM)		
Symbol Rate (S/R)	DVB-S: (2...45) DVB-S2 (2...45) DVB-C: (1...7.2)Mbit/s		
Guard Interval	DVB-T: (1/4, 1/8, 1/16, 1/32) DVB-T2: 1/4, 19/128, 1/8, 19/256, 1/16, 1/32, 1/128		
FFT mode	DVB-T: (2k, 8k) DVB-T2: (1k, 2k, 4k, 8k, 16k, 32k)		
BER/CBER/LBER/VBER	DVB-C: (BER: 1.00x 10-8) DVB-T/T2: (CBER: 1.00x10-6, VBER: 1.00x10-8) DVB-S/S2: (CBER: 1.00x10-8, VBER: 1.00x10-8)		
MER	DVB-T/T2: (< 35dB) / DVB-S: (2...20dB) / DVB-S2: (1...20dB) / DVB-C: (< 40dB)dB		
Colour-TV standard	PAL, NTSC, B/G, D/K, L, I, M/N		
FREQUENCY			
Measurement Range A	DVB-C	DVB-C	DVB-C
Measurement Range B	DVB-S/S2	DVB-S/S2	DVB-S/S2
Measurement Range C	DVB-T/T2	DVB-T/T2	DVB-T/T2
Measurement Range D	Return channel	Return channel	Return channel
Measurement Range E	FM	FM/DAB/DAB+	FM/DAB/DAB+/CATV <1214MHz
Measurement Range F		Optical 800-1700 nm	Optical 800-1700 nm
Frequency range	5...2150MHz	5...2150MHz	5...2150MHz
Measurement sensitivity VHF/UHF	20...120dBµV	20...120dBµV	20...120dBµV
Measurement sensitivity SAT	30...110dBµV	30...110dBµV	30...110dBµV
Measuring accuracy	+/- 1,5 dB (20°C) +/- 2,0 dB (0 -40°C)		
ELECTRICAL			
Impedance	75Ω	75Ω	75Ω
OPERATIONAL			
Battery	LiOn 7.4V/6.6AH	LiOn 7.4V/6.6AH	LiOn 7.4V/6.6AH
Remote voltage - DVB-T/SAT	5...20Vdc / 22KHz / max. 500mA / DiSEqC: V 1.0, 1.1, 1.2, 2.0 / Unicable / JESS / EN50607		
DC Operating voltage	11...15VDC	11...15VDC	11...15VDC
Power Consumption (typ.)	< 36W	< 36W	< 36W
External PSU	Included	Included	Included
Accessories included	Transport case, IEC cable 75Ω, Adapter+ext powercable, USB stick, Manual,	Transport case, IEC cable 75Ω, Adapter+ext powercable, USB stick, Manual, Fibrecable SC/APC-SC/APC	Transport case, IEC cable 75Ω, Adapter+ext powercable, Manual, Fibrecable SC/APC- SC/APC USB stick
Temperature - operating	0...+45°C	0...+45°C	0...+45°C
Temperature - storage	-10...+55°C	-10...+55°C	-10...+55°C
CONNECTORS			
Connector IN	IEC-female	IEC-female	IEC-female
MECHANICAL			
Packing QTY	1	1	1
Display	5.7" VGA color TFT	5.7" VGA color TFT	5.7" VGA color TFT
Dimensions product (H x D x W)	297 x 84 x 206mm	297 x 84 x 206mm	297 x 84 x 206mm
Weight (including batterie)	2.50	2.50	2.50

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TRIAX® UPM 3500 Meters

DVB-T/T2 - DVB-S/S2 - DVB-C/C2



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UPM 3500 Standard – Features and benefits

Antenna measuring receiver with 5.5" TFT

- Frequency range TV 5 to 1214 MHz, SAT 910 to 2150 MHz
- Level measurement and video for TV analogue, FM, return channel
- S/N measurement module for evaluation of analogue TV signals with SCOPE/HUM indication
- Level/BER/MER/Packet errors/Constellation diagram for DVB-S/S2/C/T/T2

- MPEG 4 decoder with 2 x Common-Interface (CI)/NIT evaluation
- DVI-out, ASI in/out via BNC, SCART in/out
- Spectrum analyser for all ranges
- TILT function
- Hum and phase jitter verification in CATV
- Printer/USB for data transfer and protocols
- DiSEqC 1.0/1.1/1.2/2.0, UNICABLE, JESS, programming function for addressable antenna outlets
- Lithium ion battery 14.4 V/6.6 Ah
- Leather protection bag, measurement cable, power cord, USB stick



UPM 3500 Standard combi meter

Art. No. 304610

EAN Number
5702663046108



UPM 3500 CATV combi meter

Art. No. 304611

EAN Number
5702663046115



UPM 3500 LEAD combi meter

Art. No. 304612

EAN Number
5702663046122



UPM 3500 HEADEND combi meter

Art. No. 304613

EAN Number
5702663046139

UPM 3500 CATV – Features and benefits

As UPM 3500 Standard, plus:

- EMI measurement module and DOCSIS analyser (DOCSIS 3.0)

TRIAX® UPM 3500 Meters

DVB-T/T2 - DVB-S/S2 - DVB-C/C2

UPM 3500 Lead - Features and benefits

As UPM 3500 CATV, plus:

- DAB/DAB+ measurement module and Optical measurement module

UPM 3500 HEADEND - Features and benefits

As UPM 3500 Standard, plus:

- remote/SNMP management software (activation code), but without SAT, DVB-T, printer, leather bag, battery

Extra option for UPM 3500



Optical input for UPM 3500 for Standard & CATV option

Art. No. 304575

EAN Number
5702663045750

DVB-T HEVC image decoder for all UPM 3500 instruments

Art. No. 304614

EAN Number
5702663046146

DOCSIS 3.0 analyzer for UPM 3500

Art. No. 389824

EAN Number
5702663898240



DAB/DAB+ module for UPM 3500

Art. No. 304569

EAN Number
5702663045699

DLE 70 for UPM 3500

Distance measuring equipment (manufacturer Bosch)

Art. No. 389830

EAN Number
5702663898301

EMI for UPM 3500

Electro-magnetic interference measurement/leakage detection, required for use of EMI2 240 and EMI 241

Art. No. 389827

EAN Number
5702663898271

EMI 240 for UPM 3500

301 MHz calibrated antenna set to display electromagnetic interference

Art. No. 389828

EAN Number
5702663898288

EMI 241 for UPM 3500

Leakage detection antenna with built in 301 MHz preamplifier

Art. No. 389829

EAN Number
5702663898295

EMI 242 for UPM 3500

Significant frequency generator 301 MHz – Adjustable from 301.0–301.7 MHz – 13 digit adjustable ID (FM modulated) – Output level adjustable from 90–108 dBμV

Art. No. 389841

EAN Number
5702663898417

UPM 3500 - accessories and technical data, please see the following pages

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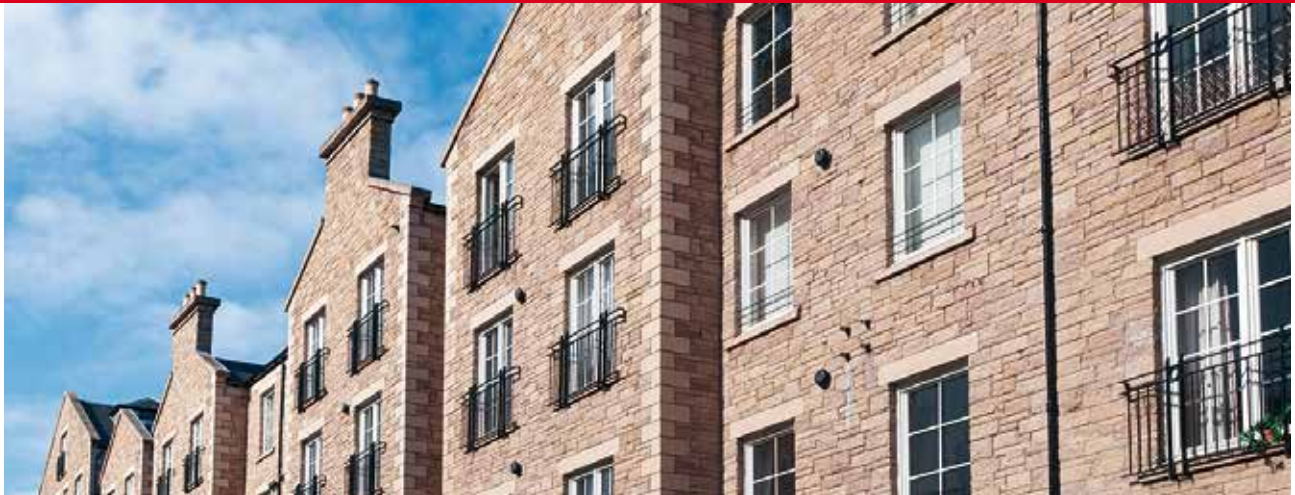
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Accessories for UPM 3500



Bag for UPM 3500 - leather

Art. No. 389831

EAN Number
5702663898318

Measurement cable for UPM 3500

Art. No. 304875

EAN Number
5702663045682

Battery pack for UPM 3500 Li/Ion 14.4V/6.600 Ah

Art. No. 389882

EAN Number
5702663898820



Printer paper roll for UPM 3500

Art. No. 304544

EAN Number
5702663045446



Power cable for UPM 3500

Art. No. 389658

EAN Number
5702663896581

TRIAX® UPM 3500 Meters

add-ons and accessories

Type:	UPM 3500 START combi meter	UPM 3500 CATV combi meter	UPM 3500 LEAD combi meter	UPM 3500 HEADEND combi meter
Art. no.	304610	304611	304612	304613
CHARACTERISTICS				
Modulation scheme	DVB-T: (COFDM, QPSK, 16QAM, 64QAM) DVB-S: (QPSK) DVB-S2: (QPSK, 8SPK) DVB-C: (16...256QAM)			
Symbol Rate (S/R)	DVB-S: (2...45) DVB-S2 (2...45) DVB-C: (0.5...7.2)Mbit/s			
Guard Interval	DVB-T: (1/4, 1/8, 1/16, 1/32)		DVB-T: (1/4, 1/8, 1/16, 1/32) DVB-T2: 1/4, 19/128, 1/8, 19/256, 1/16, 1/32, 1/128	
FFT mode	DVB-T2: (1k, 2k, 4k, 8k, 16k, 32k)			
BER/CBER/LBER/VBER	DVB-C: (BER: 10-2...10-8) DVB-T: (CBER: 1.00x10-6, VBER: 1.00x10-8) DVB-S: (CBER: 1.00x10-8, VBER: 1.00x10-8) DVB-S2: (CBER: 1.00x10-8, LBER: 1.00x10-8)		DVB-C: (BER:10-2...10-8) DVB-C: (BER:10-2...10-8) DVB-T: (CBER:1.00x10-6, VBER: 1.00x10-8) DVB-S: (CBER: 1.00x10-8, VBER: 1.00x10-8) DVB-S2: (CBER:1.00x10-8, LBER: 1.00x10-8) DVB-T2: (CBER: 1.00x10-6, LBER: 1.00x10-8)	
MER	DVB-T: (≤35dB) DVB-S: (≤20dB) DVB-S2: (≤20dB) DVB-C: (≤40dB)dB		DVB-T: (≤35dB) DVB-S: (≤20dB) DVB-S2: (≤20dB) DVB-C: (≤40dB) DVB-T2: (≤35dB)dB	
Colour-TV standard	B/G, I, L, M/N, D/K, PAL, SECAM, NTSC			
Spectrum analyzer	Digital Analyser with switchable measuring bandwidths on all levels			
FREQUENCY				
Measurement Range A	DVB-C	DVB-C	DVB-C	DVB-C
Measurement Range B	DVB-S/S2	DVB-S/S2	DVB-S/S2	DVB-S/S2
Measurement Range C	DVB-T	DVB-T	DVB-T/T2	
Measurement Range D	Return channel	Return channel	Return channel	
Measurement Range E	CATV ≤1050MHz	CATV ≤1050MHz	CATV ≤1050MHz	CATV ≤1050MHz
Measurement Range F			FM/DAB/DAB+	
Frequency range	5...2150MHz	5...2150MHz	5...2150MHz	5...2150MHz
Measurement sensitivity VHF/UHF	20...120dBµV	20...120dBµV	20...120dBµV	20...120dBµV
Measurement sensitivity SAT	30...120dBµV	30...120dBµV	30...120dBµV	30...120dBµV
Measuring accuracy	+/- 1,5 (20°C)dB	+/- 1,5 (20°C)dB	+/- 1,5 (20°C)dB	+/- 1,5 (20°C)dB
ELECTRICAL				
Impedance	75Ω	75Ω	75Ω	75Ω
OPERATIONAL				
Battery	LiOn 14.4/6.6AH	LiOn 14.4/6.6AH	LiOn 14.4/6.6AH	LiOn 14.4/6.6AH
Remote voltage - SAT	5-20V in 0,1V-Steps	5-20V in 0,1V-Steps	5-20V in 0,1V-Steps	5-20V in 0,1V-Steps
DOCSIS	3.0	3.0	3.0	
AC Supply voltage	100...120/200...240VAC		100...120/200...240VAC	
DC Operating voltage	10...15VDC	10...15VDC	10...15VDC	10...15VDC
Power Consumption (typ.)	< 45W	< 45W	< 45W	< 45W
Accessories included	Leather bag, power cable, IEC measuring cable, instruction manual, 24-character thermo printer			
Temperature - operating	0...+45°C	0...+45°C	0...+45°C	0...+45°C
Temperature - storage	-10...+55°C	-10...+55°C	-10...+55°C	-10...+55°C
CONNECTORS				
Connector IN	IEC-female	IEC-female	IEC-female	IEC-female
MECHANICAL				
Packing QTY	1	1	1	1
Remarks	Int. loudspeaker, Headphone plug, Acoustic leveldisplay			
Display	5.5" color TFT (680x480 pixel)	5.5" color TFT (680x480 pixel)	5.5" color TFT (680x480 pixel)	5.5" color TFT (680x480 pixel)
Dimensions product (H x D x W)	160 x 300 x 360mm	160 x 300 x 360mm	160 x 300 x 360mm	160 x 300 x 360mm
Net Weight	6.1 kg	6.1 kg	6.1 kg	6.1 kg

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TRIAX® Optical power meter/light source



An optical power meter is an indispensable tool for any fibre-optic installer. Only by measuring the result and quality of the installed cable immediately upon installation, can you be certain that it will work as expected when powering on the system. The risks of finding faults with the installation in the future is thereby reduced to a minimum.



TOM 011 Optical power meter

Art. No. 307967

EAN Number
5702663079670



TSO 1315 Optical light source

Art. No. 367310

EAN Number
5702663673106

Type:	TOM 011 Optical Power Meter	TSO 1315 Optical light source
Art. no.	307967	367310
OPTICAL CHARACTERISTICS		
Measurement sensitivity Optical	-50 ... +30 dBm	-6 to -7 dBm
CHARACTERISTICS		
Detector type	InGaAs	Fabry Perrot laser diode
Detector size	Ø 1.0 mm	
Modulation scheme		270Hz, 1KHz, 2KHz, (@1310/1550)
FREQUENCY		
Measurement Range	Optical 800-1700 nm	
Calibrated wavelength	850, 1300, 1310, 1490, 1550, 1625 nm	1310, 1550 nm
Uncertainty	+/- 5 %	
Measuring accuracy	+/- 5 %	
OPERATIONAL		
Battery	3 x 1.5V AA-batteries (app. 140 hours)	3x AA
DC Operating voltage	9VDC	
Temperature - operating	-10 ..+60°C	-10 ..+60°C
External PSU		Included
External PSU item ID		9V adapter
Temperature - storage	-25 ..+70°C	-25 ..+70°C
CONNECTORS		
Connector IN	Optical - FC/PC - SC/APC	Optical - FC/PC
MECHANICAL		
Display	LCD with backlight, Auto-standby after 10 minutes	LCD with backlight, Auto-standby
Dimensions product (H x D x W)	190 x 50 x 100mm	185 x 84 x 48mm
Weight (including batterie)	0.370 kg	0.180kg
Remarks	Self-calibration function 140 hours autonomy powered with 3 x AA batteries (not included)	45 hours batteries autonomy

TRIAX[®] technical appendix

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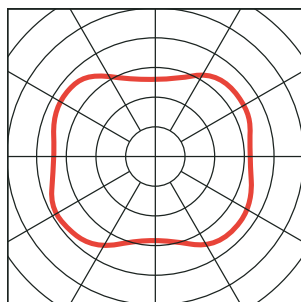
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Television antennas for DVB-T

DVB-T reception is possible with any antenna that is suitable for the related frequency band and polarization. In the catalogue all antennas suitable for the reception of DVB-T signals in VHF III and UHF IV/V bands are marked with the DVB logo.



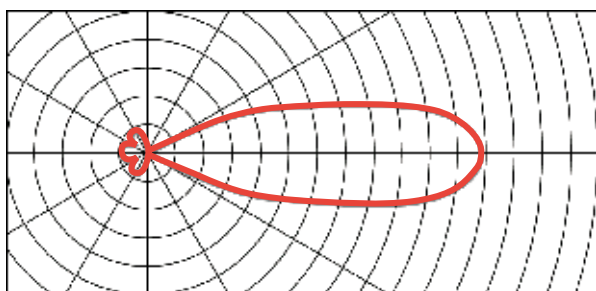
Antennas are suitable for the reception of digital terrestrial signals (DVB-T)

Omnidirectional reception

The omnidirectional radio antenna has approximately the same sensitivity for all directions and can only be recommended for well supplied reception areas.

Directional reception

The directional antenna receives signals from one main direction better than omnidirectional antennas, but has poorer reception of signals from other directions. A directional antenna is absolutely necessary for areas where signals are weak, or in areas where a particular weak transmitter is to be received.

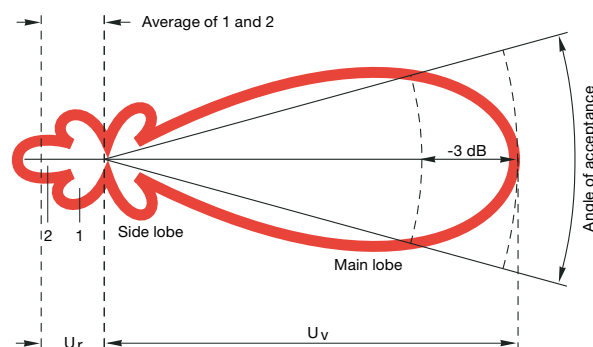


Antennas

Stereo signals can be received using any FM antenna.

Because, however, a higher signal level and greater freedom from reflection are needed for clear stereo reception than for mono reception, it is usually necessary to use a directional antenna.

Radiation pattern – The most important terms



Gain

Ratio of an antenna's reception power in its main receiving direction to receive power of a 1/2 dipole at the same installation site (logarithmic measure expressed in dB).

Angle of acceptance

Angular aperture of the major lobe between the points where the gain is lower by 3 dB than its maximum value.

Major lobe

Section of the radiation pattern in the direction of the maximum gain.

Side lobe

Lateral and rearward lobe-shaped sections of the radiation pattern that have a lower gain than in the main receiving direction.

Front to back ratio*

Ratio of the voltage U_v in the main receiving direction to an average U_r generated on the basis of the voltages of the side lobe 2 in the back direction (180°) and of the larger side lobe 1 in the rear sector (90° - 270°) (logarithmic measure expressed in dB).

* Corresponding to a definition by the Technical Commission of the "Receiving Antennas" association in ZVEI

Mast calculation

designed for superior TV reception

The sum of the moments resulting from the intrinsic moment of the mast and the bending moments caused by the mounted antennas must not exceed the maximum permitted bending moments of the mast itself.

The bending moment caused by an antenna is calculated by the following formula:

$$\text{Wind load (N)} \times \text{distance (m)} = \text{bending moment (Nm)}$$

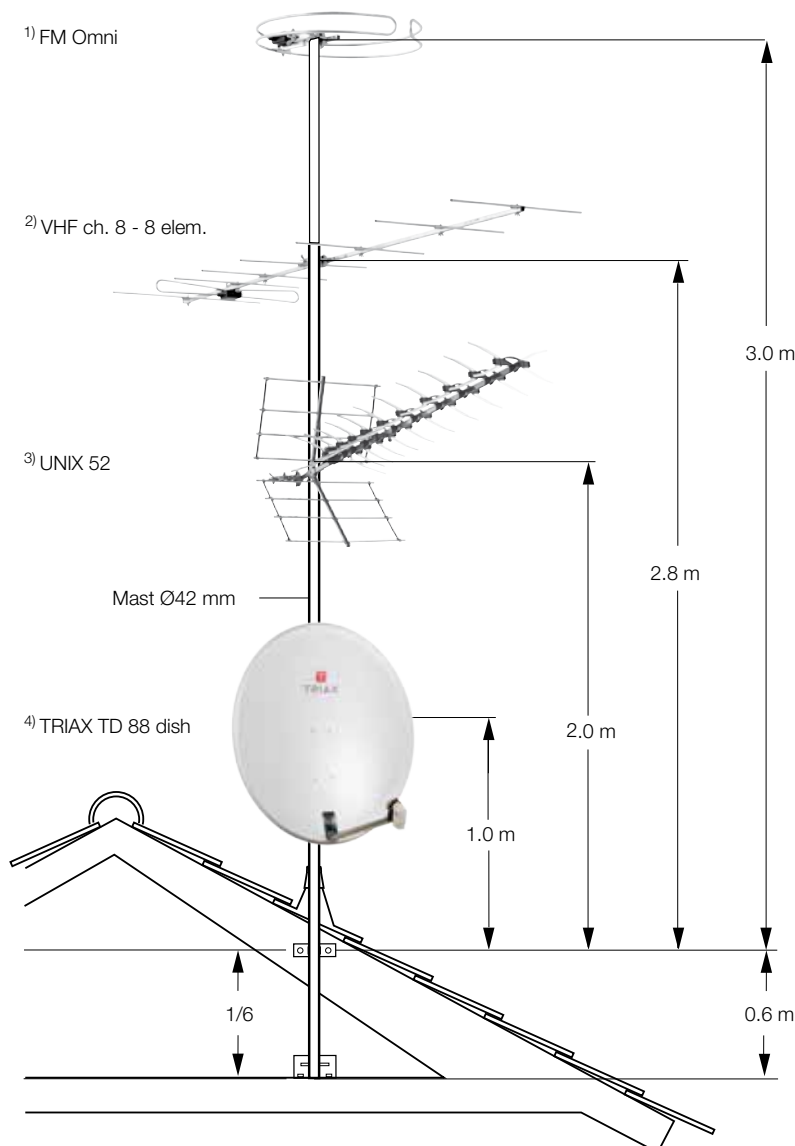
The distance and bending moment refer to the top clamping point. Bending moments in excess of 1650 Nm require proof of structural stability.

Wind load	x	distance	=	bending moment
1) 16 N	x	3,6 m	=	57.6 Nm
2) 56 N	x	2,8 m	=	156.8 Nm
3) 96 N	x	2,0 m	=	192,0 Nm
4) 619 N	x	1 m	=	619,0 Nm

Total bending moment of the antennas 1025,4 Nm

The total bending moment for the antenna at 1025.4 Nm is less than the usable bending moment for the antenna to be mounted of 1250 Nm.

Therefore the intended configuration is permitted!



In accordance with DIN EN 50083-1 the clamped length of the mast must be at least 1/6 of the mast length

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Triax Main Catalogue

1. Basic technical requirements

All equipment and components in this catalogue meet, unless otherwise stated, the European standards for "Cable networks for television signals, sound signals and interactive services" from the standardisation organisation CENELEC, which have been adopted in national versions.

- EN 50083-1** Safety requirements
- EN 50083-1/A1**
- EN 50083-1/A2**
- EN 50083-2** Electromagnetic compatibility (EMC) of equipment

The equipment conforms to the uniform European "EMC directive" in accordance with legal requirements. For the majority of the product groups in this catalogue, EN 50083-2 is relevant. In relation to the "Low voltage directive".

EN 60065 is the basis to which reference is made in EN 50083-1 "Safety requirements". The CE marking for products in relation to EMC and the low voltage directive is based on these standards.

In addition, CENELEC committee TC 209 has ratified European standards for equipment and system requirements for "Cable networks for television signals, sound signals and interactive services".

- EN 50083-3** Active broadband equipment for coaxial cable networks
- EN 50083-4** Passive broadband equipment for coaxial cable networks
- EN 50083-5** Headend equipment
- EN 50083-6** Optical equipment
- EN 50083-7** System requirements
- EN 50083-8** Electromagnetic compatibility of cable networks
- EN 50083-9** Interfaces for CATV/SMATV headends and similar professional equipment for DVB/MPEG-2 transport streams
- EN 50083-10** System performance for return paths

The system and equipment requirements are matched to each other in such a way that the minimum requirements for signal quality at the subscriber's outlet can be met with a minimum of technical effort. In addition, requirements that result from use of both analogue and digital signal transmission have also been taken into account. The EN 50083 standards provide the network operator, planner and installer with concrete guidelines for network design and selection of appropriate network components. TRIAX network components are developed to these standards and are marked in the catalogue by the relevant EN standard. The equipment standards (EN 50083 Parts 3...6) include fulfillment of the safety and EMC requirements (EN 50083 Parts 1 + 2).

The legally required CE marking for antenna and telecommunication products refers to adherence to electromagnetic compatibility (EMC) limits and, from 1 Jan 1997, to adherence to the low voltage directive.

The CE marking does not therefore imply fulfilment of the product and system requirements according to EN 50083-3...-10.

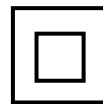
For this reason Triax indicates compliance with these basic requirements on equipment (EN 50083-3...6) by explicitly noting the corresponding EN standard in the catalogue and in the operating instructions.

1.1 Marking of components for TV cable networks

With the CE marking Triax confirms the compliance of its products with the applicable EU directives (currently EMC and low voltage directives) as well as with the standards EN 50083-1, EN 50083-2 and EN 60065. For receivers the standards EN 55013, EN 55020 and EN 61000 are applied. The CE marking is placed on the product, on the packaging and/or included in the operating instructions.

To prevent interference between TV cable networks and radio services, it is necessary to use components with sufficient shielding. Due to the varying conditions in European countries, the shielding rate was defined in the European standard EN 50083-2 in two stages, the high quality class A and class B with reduced shielding rate values.

For compliance with the legal EMC requirements for TV cable networks, we expressly recommend the use of class A components, including connecting cables so marked for terminal equipment.



Protection class 2 according to IEC 60417-5172 for components with power connection 230 V ~.

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2. Technical data in the catalogue

2.1. Characteristic impedance

Unless otherwise expressly mentioned, all technical data in the catalogue refer to a 75Ω impedance for RF connections.

2.2. Operating temperature

All passive units in the catalogue can be used within an operating temperature range of -20 °C to +60 °C. The mains-operated units meet the requirements of the EN 60065 standard within the temperature range from -20 °C to +50 °C.

Operability of these units is nevertheless also maintained fully in the temperature range from -20 °C to +60 °C. Individual units that deviate with regard to the above operating temperature range are specifically mentioned.

2.3. Mains voltage

All mains-operated units in the catalogue already meet the requirements of the IEC 60038 standard. with a rated voltage of 230 V~ +6% /-10%.

2.4. Wind load

For antenna locations, safety regulations according to EN 50083-1 differentiate between two heights above ground (up to 20 m and above 20 m).

They specify different dynamic pressure values for each height. $q = 800 \text{ N/m}^2$. and $q = 1100 \text{ N/m}^2$ respectively. The wind load values (horizontal and vertical) specified in this catalogue were determined using a dynamic pressure of $q = 800 \text{ N/m}^2$. If a value for $q = 1100 \text{ N/m}^2$ is needed. the value in the catalogue has to be multiplied by 1.37.

2.5. Permissible output level for active electronic equipment

Specification of the permissible output level is made according to EN 50083-3 "Active broadband equipment for coaxial cable networks" for a signal-to-noise ratio of:

- IMD = 60 dB for amplifiers for AM, QAM and FM signals (in SMATV/MATV, broadband cable, CATV installations)
- IMD = 35 dB for amplifiers for FM signals only (satellite IF transmission)

Now that this measurement method is standard throughout Europe, this important parameter has become transparent and comparable. With the aid of this information, the network planner and installer are able to determine the optimum amplifier gain (refer also to the planning instructions) to maintain the required minimum signal-to-noise ratios for a given number of channels.

This procedure provides considerable advantages wherever new networks with a minimum number of amplifiers (cost advantage) are planned or where overriding regulations apply to certain parts of the network.

For example the permissible output level for a house connection amplifier to a house connection point is explicitly specified at $\text{CTB/CSO} \geq 66 \text{ dB}$.

This means that the required signal quality ($\text{CTB/CSO} \geq 57 \text{ dB}$ according to EN 50083-7) can be maintained up to the subscriber's connection. Other permissible output levels are also given on the one hand for the CENELEC spacing (EN 50083-3) and on the other hand for full adjacent channel load of TV bands.

Maintaining the latter control limits allows for any channel load with analogue and digital TV signals (worst case: complete channel load with analogue and digital TV channels). Assigning only digital TV channels in the frequency range < 606 MHz makes it possible to raise the output level of the house connection amplifier by up to 2 dB.

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3. Planning and installation instructions

3.1. Permissible output level for house connection amplifiers, multiple band amplifiers, and postamplifiers

It is always recommended to carry out these calculations on a Windows PC using:

- AND by CDS Germany (www.cdsgmbh.de)
- CACAO by PTE-software (www.ptesoftware.dk)

The following explanations can be an additional help for solving problems and for understanding the underlying relationships.

The permissible output level is dependent on:

- The required signal-to-noise ratio CTB, CSO
- The number of TV channels to be transmitted
- The frequency distribution of the channels

The signals of the FM radio band can be treated as a single TV channel if their levels are 6-8 dB below the level of the TV channels. The first selection criterion is the number of TV channels to be transmitted.

3.1.1 Maximum number of TV channels: 10 (MATV systems)

- Determine the permissible output level from the technical data: for IMD2 (60dB 2nd order intermodulation products according to EN 50083-5), for IMR3 (60dB 3rd order intermodulation products according to EN 50083-5)
- Reduce the IMR3 value according to the number of channels

The smaller of the two output levels (with respect to IMD2, IMR3) is the permissible output level (dB(μV)) for a signal-to-interference ratio of IMD=60 dB.

Number of channel loads	Correction to the catalog value in dB
2	0
3	- 2
4	- 3
5	- 4
6	- 5
7	- 5.5
8	- 6
10	- 7

*Table 1:
Level reduction as a function of the number of channels loaded*

3.1.2 More than 10 TV channels (broadband cable, MATV, CATV)

In order to obtain optimal gain from amplifiers with many channels loaded, it is necessary to use the permissible output levels specifically defined for each such case (for a CSO and CTB ratio of 60 dB) and a channel raster as close as possible to a defined one.

3.1.3 Approximate calculation for the permissible output level:

- a) Permissible output level dependent on required CSO and CTB values that are different from catalogue values:

CSO

Question: "How high is the permissible output level for a CSO value D a dB above the catalogue value (CSO = 60 dB)?"

n_{a1} = output level in dB(μV) for CSO = 60 dB (catalogue value)
 n_{a2} = output level in dB(μV) for CSO = (60 + D) dB

$$n_{a2} = n_{a1} - \Delta a$$

i. e. on an increase in the CSO requirement by Δ a dB, the permissible output level is reduced by Δ a dB.

CTB

Question: "How high is the permissible output level for a CTB value D a dB above the catalogue value (CTB = 60 dB)?"

n_{a3} = output level in dB(μV) for CTB = 60 dB (catalogue value)
 n_{a4} = output level in dB(μV) for CTB = (60 + Δ) dB

$$n_{a4} = n_{a3} - \Delta a/2$$

i. e. on an increase in the CTB requirement by Δ a dB, the permissible output level is reduced by Δ a/2 dB.

- b) Permissible output level for channel loads deviating from catalogue specifications

The individual Triax operating instructions list the maximum permissible output level for a signal-to-interference ratio of 60 dB for three different channel spacings:

- up to 450 MHz: 36 TV + 24 FM channels.
 - up to 606 MHz: 29 TV channels ("CENELEC raster")
 - up to 862 MHz: 42 TV channels ("CENELEC raster")
- Refer to "Channel spacing" table

These conditions are critical with respect to the development of non-linear distortion (CTB, CSO). For small deviations of the actual channel spacing from the standard ones, it is not necessary to reduce the output level shown in the operating instructions. For larger deviations, the following rules of thumb can help to obtain a rough approximation for the adjustment:

1. Select the catalogue values corresponding to the highest channel frequency.
2. For a channel pattern with twice the number of channels specified in the catalogue, reduce the output level by **about 3 dB**.

3. Planning and installation instructions

- continued from last page

If the frequency band contains only one half of the number of channels (with constant channel spacing), it is possible to raise the output level by 3 dB. If the configuration lies somewhere in between these extremes, it is possible to make a rough interpolation.

- c) Maximum output level for frequency pre-compensation (line equaliser)

A frequency pre-compensation value for example of 10 dB using a line equaliser permits driving the amplifier approximately 2 dB higher. This value can also be treated as output reserve. It should be noted, however, that the signal-to-interference ratio at low frequencies will deteriorate by the amount of compensation attenuation. For extreme cases, optimisation by a planning specialist is therefore required.

- d) Permissible output level when cascading amplifiers

For cascades, reduce the output level by 3 dB each time you double the number of cascaded amplifiers.

3.2. Radiated interference power and max. operating level

The radiated interference power of an antenna system according to EN 50083-2 may not exceed:

- 20 dB(pW) = 39 dB(μV) at 75W in the frequency range 30-950 MHz
- 43 dB(pW) = 62 dB(μV) at 75W in the frequency range 950-2500 MHz

Thus, in conjunction with the shielding rate specified for the equipment, the maximum operating level is as follows:
Maximum operating level =

- Shielding rate+ 39 dB(μV)
(in the 30-950 MHz frequency range)
- Shielding rate + 62 dB(μV)
(in the 950-2500 MHz frequency range)

3.3. Shielding rate

The passive TRIAX components in this catalogue meet as a minimum the shielding rates required by EN 50083-2. class B:

- 5-470 MHz 75 dB min
- 470-950 MHz 65 dB min
- 950-3000 MHz 50 dB min

Class A components meet the increased requirements of EN 50083-2

- 5-300 MHz 85 dB min
- 300-470 MHz 80 dB min
- 470-950 MHz 75 dB min
- 950-3000 MHz 55 dB min



For active units, the class A marking also documents compliance with EN 50083-2.

3.4. Signal-to-noise ratio, noise factor

The signal-to-noise ratio is the ratio of the used signal power to the noise power expressed in decibels. The noise factor defines by how much the signal-to noise ratio at the output of an active unit (e. g. amplifier) is less than the signal-to-noise ratio at the input.

The thermal noise level on a 75 W resistor amounts
- for a bandwidth of 5 MHz (TV channel) and
- for a temperature of 293 K to approximately 2 dB(μV).

The signal-to-noise ratio of the received signal is the decisive factor for the video quality of a TV set (see below). The signal-to-noise ratio at the output of an individual amplifier (for ideal. i.e. noise-free input signal) can be determined as follows:

Operating level at the output

- gain
- noise factor
- noise level

Example:

An amplifier with the following output parameters:
94 dB(μV) operating level, 21 dB gain, and 7 dB noise factor.

The signal-to-noise ratio at the output of an individual amplifier would then be:

94	dBμV	operating level
-	21	dB
-	7	dB
-	2	dBμV
=	64	dB
		s/n out

3.5. Signal-to-noise ratio / noise / picture quality

Signal-to-noise ratio	Noise	Picture quality
> 46 dB	invisible	very good
37 dB	visible, but not interfering	good
30 dB	clearly visible, interfering	unsatisfactory
< 26 dB	dominant compared to required signal	unusable

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4. Earthing and equipotential bonding cables

EN 50083-1 specifies the following earthing and equipotential bonding cables for antenna systems:

Earthing cables:

Material	Cross-section	Ø	Condition	Example
Copper	> 16 mm ²	> 4.6 mm	bare or insulated	Koka
Aluminium	> 25 mm ²	> 5.7 mm	bare (indoors only) or insulated	
Aluminium	> 50 mm ²	> 8.0 mm	(wrought) alloy	
Steel wire	-	8.0 mm	galvanised	-
Steel strip	2.5 x 20 mm	-	galvanised	-

Cable types: single conductor or multi-conductor, but no fine wires

Equipotential bonding cables:

Material	Cross-section	Ø	Condition	Example
Copper	4 mm ²	2.3 mm	bare or insulated	Koka

Frequency ranges of radio waves

Frequency range	Int. abb.	Abb.	Modulation Picture/ sound	Channel width	Channels	Frequency	Wave- length	Polarisation
Long wave	LF	L	AM	9 kHz	2-4	150 - 285 kHz	2000 - 1050 m	V
Medium wave	MF	M	AM	9 kHz		510 - 1605 kHz	590 - 187 m	V
Short wave	HF	K	AM	9 kHz		3.95 - 26.1 MHz	76 - 11.5 m	V
Band I	VHF	F I	AM FM	7 MHz	2-4	47 - 68 MHz	6.35 - 4.4 m	H/V
Band II (radio)	VHF	UKW	FM	300 kHz	2-70	87.5 - 108 MHz	3.4 - 2.8 m	H
S-channels	VHF	USB	AM FM	7 MHz	S2 - S10	111 - 174 MHz	2.7 - 1.7 m	- ¹⁾
Band III	VHF	F III	AM FM	7 MHz	5-12	174 - 230 MHz	1.7 - 1.3 m	H/V
S-channels	VHF	OSB	AM FM	7 MHz	S11 - S20	230 - 300 MHz	1.3 - 1.0 m	- ¹⁾
S-channels	UHF	ESB	AM FM	8 MHz	S21 - S38	302 - 446 MHz	99 - 68 cm	- ¹⁾
Band IV	UHF	F IV	AM FM	8 MHz	21-39	470 - 622 MHz	64 - 68 cm	H/V
Band V	UHF	F V	AM FM	8 MHz	40-60	622 - 790 MHz	48 - 38 cm	H/V

-1) in wideband installation

5. TV standards

Standard	No. of lines	Channel width (MHz)	Video bandwidth (MHz)	Video/audio separation (MHz)	Vestigial sideband (MHz)	Video modulation	Audio modulation
B (CCIR)	625	7	5	+ 5.5 (+5.742)	0.75	negative	FM, FM ¹⁾
D (OIRT)	625	8	6	+ 6.5	0.75	negative	FM
G (CCIR)	625	8	5	+ 5.5 (+5.742)	0.75	negative	FM, FM ¹⁾
H (B)	625	8	5	+ 5.5	1.25	negative	FM
I (GB)	625	8	5.5	+ 6.0	1.25	negative	FM
K (OIRT)	625	8	6	+ 6.5	0.75	negative	FM
K1 (CCIR)	625	8	6	+ 6.5	1.25	negative	FM
L (F)	625	8	6	+ 6.5	1.25	positive	AM
M (FCC)	525	6	4.2	+ 4.5	0.75	negative	FM
N (South America)	625	6	4.2	+ 4.5	0.75	negative	FM

¹⁾ Second audio carrier for dual or stereo operation

6. Frequency ranges and channel allocation

Unit	Channel number	Frequency range MHz	Channel centre MHz	Picture carrier MHz	1st sound
Return/data communication		4 - 30			
Return/data communication		5 - 65			
Return-TV	R 1	14.75-21.75			
	R 2	21.75-28.75			
Band I	2	47 - 54	50.50	48.25	53.75
	3	54 - 61	57.50	55.25	60.75
	4	61 - 68	64.50	62.25	67.75
Data channel		70 - 75			
Band II / FM	2 - 70	87.5 - 108			
Digital-sound	S 2	111 - 118			
1st channel	S 3	118 - 125			
Lower	S 4	125 - 132	128.50	126.25	131.75
S-channels	S 5	132 - 139	135.50	133.25	138.75
	S 6	139 - 146	142.50	140.25	145.75
USB	S 7	146 - 153	149.50	147.25	152.75
	S 8	153 - 160	156.50	154.25	159.75
	S 9	160 - 167	163.50	161.25	166.75
	S 10	167 - 174	170.50	168.25	173.75
Band III	5	174 - 181	177.50	175.25	180.75
TV/DAB	6	181 - 188	184.50	182.25	187.75
	7	188 - 195	191.50	189.25	194.75
	8	195 - 202	198.50	196.25	201.75
	9	202 - 209	205.50	203.25	208.75
	10	209 - 216	212.50	210.25	213.75
	11	216 - 223	219.50	217.25	222.75
	12	223 - 230	226.50	224.25	229.75
Upper	S 11	230 - 237	233.50	231.25	236.75
S-channels	S 12	237 - 244	240.50	238.25	243.75
	S 13	244 - 251	247.50	245.25	250.75
	S 14	251 - 258	254.50	252.25	257.75
	S 15	258 - 265	261.50	259.25	264.75
	S 16	265 - 272	268.50	266.25	271.75
	S 17	272 - 279	275.50	273.25	278.75
	S 18	279 - 286	282.50		
	S 19	286 - 293	289.50	287.25	
	S 20	293 - 300	296.50	294.25	299.75
S-channels	S 21	302 - 310	306.00	303.25	308.75
	S 22	310 - 318	314.00	311.25	316.75
	S 23	318 - 326	322.00	319.25	324.75
	S 24	326 - 334	330.00	327.25	332.75
	S 25	334 - 342	338.00	335.25	340.75
	S 26	342 - 350	346.00	343.25	348.75
	S 27	350 - 358	354.00	351.25	356.75
	S 28	358 - 366	362.00	359.25	364.75
	S 29	366 - 374	370.00	367.25	372.75
	S 30	374 - 382	378.00	375.25	380.75
	S 31	382 - 390	386.00	383.25	388.75
	S 32	390 - 398	394.00	391.25	396.75
	S 33	398 - 406	402.00	399.25	404.75
	S 34	406 - 414	410.00	407.25	412.75
	S 35	414 - 422	418.00	415.25	420.75
	S 36	422 - 430	426.00	423.25	428.75
	S 37	430 - 438	434.00	431.25	436.75
	S 38	438 - 446	442.00	439.25	444.75

Unit	Channel number	Frequency range MHz	Channel centre MHz	Picture carrier MHz	1st sound
Band IV	21	470 - 478	474.00	471.25	476.75
	22	478 - 486	482.00	476.25	484.75
	23	486 - 494	490.00	487.25	492.75
	24	494 - 502	498.00	495.25	500.75
	25	502 - 510	506.00	503.25	508.75
	26	510 - 518	514.00	511.25	516.75
	27	518 - 526	522.00	519.25	524.75
	28	526 - 534	530.00	527.25	532.75
	29	534 - 542	538.00	535.25	540.75
	30	542 - 550	546.00	543.25	548.75
	31	550 - 558	554.00	551.25	556.75
	32	558 - 566	562.00	559.25	564.75
	33	566 - 574	570.00	567.25	572.75
	34	574 - 582	578.00	575.25	580.75
	35	582 - 590	586.00	583.25	588.75
	36	590 - 598	594.00	591.25	596.75
	37	598 - 606	602.00	599.25	604.75
	38	606 - 614	610.00	607.25	612.75
	39	614 - 622	618.00	615.25	618.75
Band V	40	622 - 630	626.00	623.25	626.75
	41	630 - 638	634.00	631.25	636.75
	42	638 - 646	642.00	639.25	644.75
	43	646 - 654	650.00	647.25	652.75
	44	654 - 662	658.00	655.25	660.75
	45	662 - 670	666.00	663.25	668.75
	46	670 - 678	674.00	671.25	676.75
	47	678 - 686	682.00	679.25	684.75
	48	686 - 694	690.00	687.25	692.75
	49	694 - 702	698.00	695.25	700.25
ECN/LTE 700	50	702 - 710	706.00	703.25	708.75
Band V	51	710 - 718	714.00	711.25	716.75
	52	718 - 726	722.00	719.25	724.75
	53	726 - 734	730.00	727.25	732.75
	54	734 - 742	738.00	735.25	740.75
	55	742 - 750	746.00	743.25	748.75
	56	750 - 758	754.00	751.25	756.75
	57	758 - 766	762.00	759.25	764.75
	58	766 - 774	770.00	767.25	772.75
	59	774 - 782	778.00	775.25	780.75
	60	782 - 790	786.00	783.25	788.75
ECN/LTE 800	61	790 - 798	794.00	791.25	796.75
Band V	62	798 - 806	802.00	799.25	804.75
	63	806 - 814	810.00	807.25	812.75
	64	814 - 822	818.00	815.25	820.75
	65	822 - 830	826.00	823.25	828.75
	66	830 - 838	834.00	831.25	836.75
	67	838 - 846	842.00	839.25	844.75
	68	846 - 854	850.00	847.25	852.75
	69	854 - 862	858.00	855.25	860.75

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6. Channels and frequencies

Channel	Channel limits (MHz)	Video carrier (MHz)	Audio carrier (MHz)
Standard B. Italy			
VHF I A	52.5-59.5	53.75	59.25
B	61-68	62.25	67.75
VHF II C	81-88	82.25	87.75
VHF III D	174-181	175.25	180.75
E	182.5- 189.5	183.75	189.25
F	191-198	192.25	197.75
G	200-207	201.25	206.75
H	209-216	210.25	215.75
H 1	216-223	217.25	222.75
H 2	223-230	224.25	229.75
Standard D. OIRT			
VHF I R I	48.5-56.5	49.75	56.25
R II	58-66	59.25	65.75
R III	76-84	77.25	83.75
(VHF II) R IV	84-92	85.25	91.75
R V	92-100	93.25	99.75
s1	110-118	111.25	117.75
s2	118-126	119.23	125.75
s3	126-134	127.25	133.75
s4	134-142	135.25	141.75
s5	142-150	143.25	149.75
s6	150-158	151.25	157.75
s7	158-166	159.25	165.75
s8	166-174	167.25	173.75
(VHF III) R VI	174-182	175.25	181.75
R VII	182-190	183.25	189.75
R VIII	190-198	191.25	197.75
R IX	198-206	199.25	205.75
R X	206-214	207.25	213.75
R XI	214-222	215.25	221.75
R XII	222-230	223.25	229.75
s9	230-238	231.25	237.75
s10	238-246	239.25	245.75
s11	246-254	247.25	253.75
s12	254-262	255.25	261.75
s13	262-270	263.25	269.75
s14	270-278	271.25	277.75
s15	278-286	279.25	285.75
s16	286-294	287.25	293.75
s17	294-302	295.25	301.75
s18	302-310	303.25	309.75
s19	310-318	311.25	317.75
s20	318-326	319.25	325.75
s21	326-334	327.25	333.75
s22	334-342	335.25	341.75
s23	342-350	343.25	349.75
..
s38	462-470	463.25	469.75

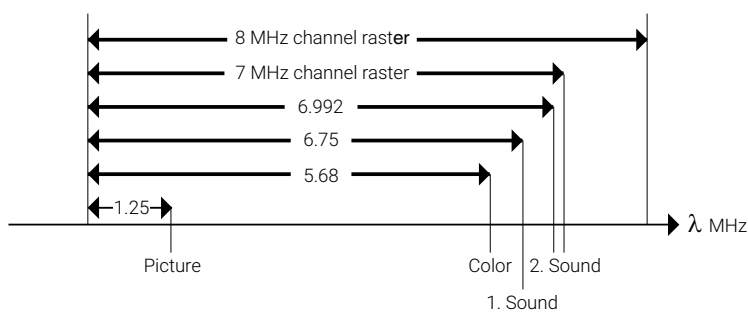
Channel	Channel limits (MHz)	Video carrier (MHz)	Audio carrier (MHz)
Standard D. China			
VHF I 1	48.5-56.5	49.75	56.25
2	56.5-64.5	57.75	64.25
3	64.5-72.5	65.75	72.25
4	76.0-84.0	77.25	83.75
5	84.0-92.0	85.25	91.75
VHF III 6	167-175	168.25	174.75
7	175-183	176.25	182.75
8	183-191	184.25	190.75
9	191-199	192.25	198.75
10	199-207	200.25	206.75
11	207-215	208.25	214.75
12	215-223	216.25	222.75
Standard I. Ireland			
VHF I IA	44.5-52.5	45.75	51.75
IB	52.5-60.5	53.75	59.75
IC	60.5-68.5	61.75	67.75
VHF III ID	174-182	175.25	181.25
IE	182-190	183.25	189.25
IF	190-198	191.25	197.25
IG	198-206	199.25	205.25
IH	206-214	207.25	213.25
IJ	214-222	215.25	221.25
Standard L. France			
VHF I A	41.00-49.00	47.75	41.25
B	49.00-57.00	55.75	49.25
C	57.00-65.00	63.75	57.25
C 1	53.75-61.75	60.50	54.00
VHF III 5	174.75-182.75	176.00	182.50
6	182.75-190.75	184.00	190.50
7	190.75-198.75	192.00	198.50
8	198.75-206.75	200.00	206.50
9	206.75-214.75	208.00	214.50
10	214.75-222.75	216.00	222.50
Standard K1. (France)			
VHF III 4	174-182	175.25	181.75
5	182-190	183.25	189.75
6	190-198	191.25	197.75
7	198-206	199.25	205.75
8	206-214	207.25	213.75
9	214-222	215.25	221.75

7. Carrier frequencies for radio and TV channels

Frequencies of a TV-signal (Norm B. G/Pal)

7 MHz raster:
FI. USB. F III. OSB

8 MHz raster:
ESB. F IV. F V



TRIAx[®] technical appendix

Triax Main Catalogue

8. Analogue colour and broadcasting systems by country

Country	TV	Colour system	Stereo	Subtitles
Albania	B/G	PAL		
Argentina	N	PAL-N		
Australia	B/G	PAL	FM-FM	Teletext
Austria	B/G	PAL	FM-FM	Teletext
Azores (Portugal)	B	PAL		
Bahamas	M	NTSC		
Bahrain	B	PAL		
Barbados	M	NTSC		
Belgium	B/G	PAL	Nicam	Teletext
Bermuda	M	NTSC		
Brazil	M	PAL-M	MTS	
Bulgaria	D	SECAM		
Canada	M	NTSC	MTS	CC
Canary Is	B	PAL		
China	D	PAL		
Colombia	M	NTSC		
Cyprus	B	PAL		
Czechoslovakia	D/K	SECAM/PAL		
Denmark	B	PAL	Nicam	Teletext
Egypt	B	SECAM		
Faroe Islands (DK)	B	PAL		
Finland	B/G	PAL	Nicam	Teletext
France	E/L	SECAM		Teletext
Gambia	I	PAL		
Germany	B/G	PAL	FM-FM	Teletext
Germany (old East)	B/G	SECAM/PAL		
Gibraltar	B	PAL		
Greece	B/G	PAL		
Hong Kong	I	PAL	Nicam	
Hungary	B/G & D/K	PAL	Nicam (Budapest)	
Iceland	B	PAL		
India	B	PAL		
Indonesia	B	PAL		
Iran	H	SECAM		
Ireland	I	PAL	Nicam	Teletext
Israel	B/G	PAL	Nicam	Teletext
Italy	B/G	PAL	FM/FM	Teletext
Jamaica	N	SECAM		
Japan	M	NTSC	Matrix	
Jordan	B	PAL		
Kenya	B	PAL		
Korea	M	NTSC		
Luxembourg	B/G	PAL	NICAM	Teletext
Madeira	B	PAL		
Madagascar	B	SECAM		
Malaysia	B	PAL		
Malta	B/G	PAL		
Mauritius	B	SECAM		
Mexico	M	NTSC	MTS	CC
Monaco	L/G	SECAM/PAL		
Morocco	B	SECAM		

Country	TV	Colour system	Stereo	Subtitles
Netherlands	B/G	PAL	FM-FM	Teletext
New Zealand	B/G	PAL	Nicam	Teletext
North Korea	D/K	SECAM		
Norway	B/G	PAL	Nicam	
Pakistan	B	PAL		
Paraguay	N	PAL		
Peru	M	NTSC		
Philippines	M	NTSC		
Poland	D/K	PAL		Teletext
Portugal	B/G	PAL	Nicam	Teletext
Romania	G	PAL		
Russia	D/K	SECAM		
Saudi Arabia	B	SECAM		
Seychelles	I	PAL		
Singapore	B	PAL		
South Africa	I	PAL		
South Korea	M	NTSC		
Spain	B/G	PAL	Nicam	Teletext
Sri Lanka	B/G	PAL		
Sweden	B/G	PAL	Nicam	Teletext
Switzerland	B/G	PAL	FM-FM	Teletext
Tahiti	KI	SECAM		
Taiwan	M	NTSC		
Thailand	B	PAL		
Trinidad	M	NTSC		
Tunisia	B	SECAM		
Turkey	B	PAL	-	Teletext
United Arab Emirates	B/G	PAL		
United Kingdom	I	PAL	Nicam	Teletext
Uruguay	N	PAL	MTS	
USA	M	NTSC	MTS	CC
Venezuela	M	NTSC		
Yugoslavia	B/H	PAL		
Zimbabwe	B	PAL		

TERRESTRIAL RECEPTION

SATELLITE & FIBRE RECEPTION

CABLE TV (CATV)

HEADENDS CAS SYSTEM MODULATORS

CABLES & CONNECTORS

OUTLETS TAPS & SPLITTER

INHOUSE CONNECTIVITY

SURVEILLANCE (CCTV)

INSTRUMENTS TOOLS & CABINETS

TECHNICAL APPENDIX

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Triax Main Catalogue

9. Signal level - mV to dBμV

Signal level - mV to dBμV				Voltage ratio in dB		
mV v/75 W		dBμV		*) Factor -dB		*) Factor +dB
0.100	40	20.0	86	1.0	0.0	1.0
0.112	41	22.5	87	0.95	0.5	1.06
0.125	42	25.0	88	0.89	1.0	1.12
0.140	43	28.0	89	0.84	1.5	1.19
0.160	44	31.5	90	0.8	2.0	1.25
0.180	45	35.5	91	0.75	2.5	1.33
0.200	46	40.0	92	0.71	3.0	1.41
0.225	47	45.0	93	0.67	3.5	1.5
0.250	48	50.0	94	0.63	4.0	1.6
0.280	49	56.0	95	0.60	4.5	1.67
0.315	50	63.0	96	0.56	5.0	1.78
0.355	51	70.0	97	0.53	5.5	1.88
0.400	52	80.0	98	0.50	6.0	2.0
0.450	53	90.0	99	0.47	6.5	2.12
0.500	54	100	100	0.45	7.0	2.24
0.560	55	112	101	0.42	7.5	2.37
0.630	56	125	102	0.4	8.0	2.5
0.700	57	140	103	0.38	8.5	2.66
0.800	58	160	104	0.35	9.0	2.82
0.900	59	180	105	0.33	9.5	3.00
1.00	60	200	106	0.32	10	3.16
1.12	61	225	107	0.28	11	3.55
1.25	62	250	108	0.25	12	4.00
1.40	63	280	109	0.22	13	4.5
1.60	64	315	110	0.2	14	5.00
1.80	65	355	111	0.18	15	5.62
2.00	66	400	112	0.16	16	6.3
2.25	67	450	113	0.14	17	7.1
2.50	68	500	114	0.125	18	8.0
2.80	69	560	115	0.11	19	8.9
3.15	70	630	116	0.10	20	10.0
3.55	71	700	117	0.089	21	10.0
4.00	72	800	118	0.08	22	12.5
4.50	73	900	119	0.071	23	14.1
5.00	74	1000	120	0.063	24	16.0
5.60	75	1120	121	0.056	25	17.8
6.30	76	1250	122	0.050	26	20.0
7.00	77	1400	123	0.045	27	22.4
8.00	78	1600	124	0.04	28	25.0
9.00	79	1800	125	0.035	29	28.2
10.0	80	2000	126	0.032	30	31.6
11.2	81	2250	127	0.028	31	35.5
12.5	82	2500	128	0.025	32	40
14.0	83	2800	129	0.022	33	45
16.0	84			0.020	34	50
18.0	85			0.018	35	56
				0.016	36	63
				0.014	37	71
				0.0125	38	80
				0.011	39	89
				0.01	40	100
				0.0056	45	178
				0.0032	50	316
				0.0018	55	562
				0.001	60	1000

*) The numbers are dB value calculated to times.

Signal level is often stated in dBμV which is to be understood as the number of dB the signal exceeds 1μV.

10. Power level dBm to mV to dBm

dBm		mW		dBm		mW	
-20	0,01	-20,00	0,01	-20,00	0,01	-20,00	0,01
-19	0,01	-16,99	0,02	-16,99	0,02	-16,99	0,02
-18	0,02	-15,23	0,03	-15,23	0,03	-15,23	0,03
-17	0,02	-13,98	0,04	-13,98	0,04	-13,98	0,04
-16	0,03	-12,01	0,05	-12,01	0,05	-12,01	0,05
-15	0,03	-12,22	0,06	-12,22	0,06	-12,22	0,06
-14	0,04	-11,55	0,07	-11,55	0,07	-11,55	0,07
-13	0,05	-10,97	0,08	-10,97	0,08	-10,97	0,08
-12	0,06	-10,46	0,09	-10,46	0,09	-10,46	0,09
-11	0,08	-10,00	0,1	-10,00	0,1	-10,00	0,1
-10	0,10	-6,99	0,2	-6,99	0,2	-6,99	0,2
-9	0,13	-5,23	0,3	-5,23	0,3	-5,23	0,3
-8	0,16	-3,98	0,4	-3,98	0,4	-3,98	0,4
-7	0,20	-3,01	0,5	-3,01	0,5	-3,01	0,5
-6	0,25	-2,22	0,6	-2,22	0,6	-2,22	0,6
-5	0,32	-1,55	0,7	-1,55	0,7	-1,55	0,7
-4	0,40	-0,97	0,8	-0,97	0,8	-0,97	0,8
-3	0,50	-0,46	0,9	-0,46	0,9	-0,46	0,9
-2	0,63	-0,00	1	-0,00	1	-0,00	1
-1	0,79	3,01	2	3,01	2	3,01	2
0	1,00	4,77	3	4,77	3	4,77	3
1	1,26	6,02	4	6,02	4	6,02	4
2	1,58	6,99	5	6,99	5	6,99	5
3	2,00	7,78	6	7,78	6	7,78	6
4	2,51	8,45	7	8,45	7	8,45	7
5	3,16	9,03	8	9,03	8	9,03	8
6	3,98	9,54	9	9,54	9	9,54	9
7	5,01	10,00	10	10,00	10	10,00	10
8	6,31	10,41	11	10,41	11	10,41	11
9	7,94	10,79	12	10,79	12	10,79	12
10	10,00	11,14	13	11,14	13	11,14	13
11	12,59	11,46	14	11,46	14	11,46	14
12	15,85	11,76	15	11,76	15	11,76	15
13	19,95	12,04	16	12,04	16	12,04	16
14	25,12	12,30	17	12,30	17	12,30	17
15	31,62	12,55	18	12,55	18	12,55	18
16	39,81	12,79	19	12,79	19	12,79	19
17	50,12	13,01	20	13,01	20	13,01	20
18	63,10	13,22	21	13,22	21	13,22	21
19	79,43	13,42	22	13,42	22	13,42	22
20	100,00	13,62	23	13,62	23	13,62	23
21	125,89	13,80	24	13,80	24	13,80	24
22	158,49	13,98	25	13,98	25	13,98	25
23	199,53	14,15	26	14,15	26	14,15	26
24	251,19	14,31	27	14,31	27	14,31	27
25	316,23	14,47	28	14,47	28	14,47	28
26	398,11	14,62	29	14,62	29	14,62	29
27	501,19	14,77	30	14,77	30	14,77	30



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