POLYTRON®

Broadband Systems

Optical SAT distribution







Satellite signal distribution via fibre optic cable

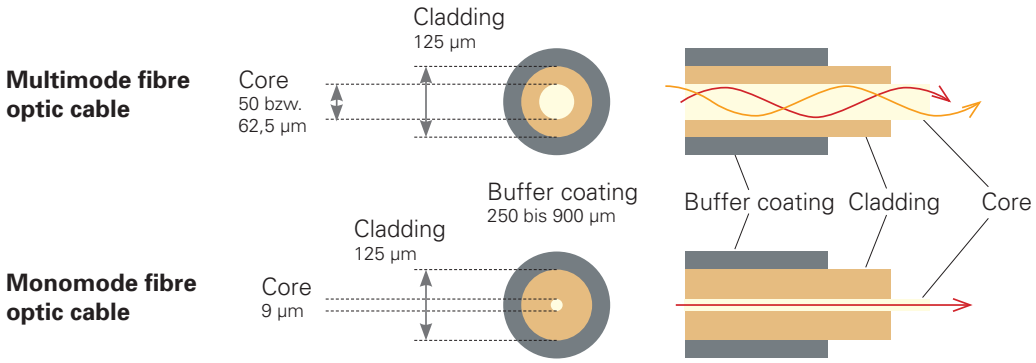
For transmitting satellite signals over long distances, the classical distribution over coaxial cable quickly reaches its limits due to signal attenuation and loss of quality.
The distribution of satellite signals over fibre optic cables easily allows for very large distances with few losses.

The concept

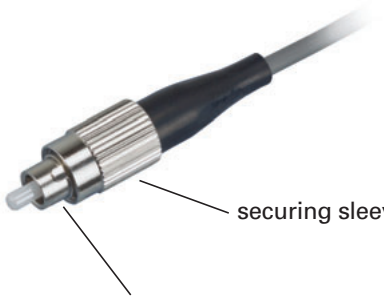
The principle of satellite distribution over fibre is simple: an optical LNB converts the received signals into light waves right at the dish. The distribution is performed over the pre-assembled fibre optic cables. The final converters convert the light wave signal back to its original satellite polarizations.

Structure of fibre optic cables

Fibre optic cables are used to transfer information in networks with high information density.
The optical system of POLYTRON uses monomode fibre optic cables facilitating signal distribution over long distances.



Polytron fibre optic cables of the OFO and OFI series are made with FC/PC plugs.



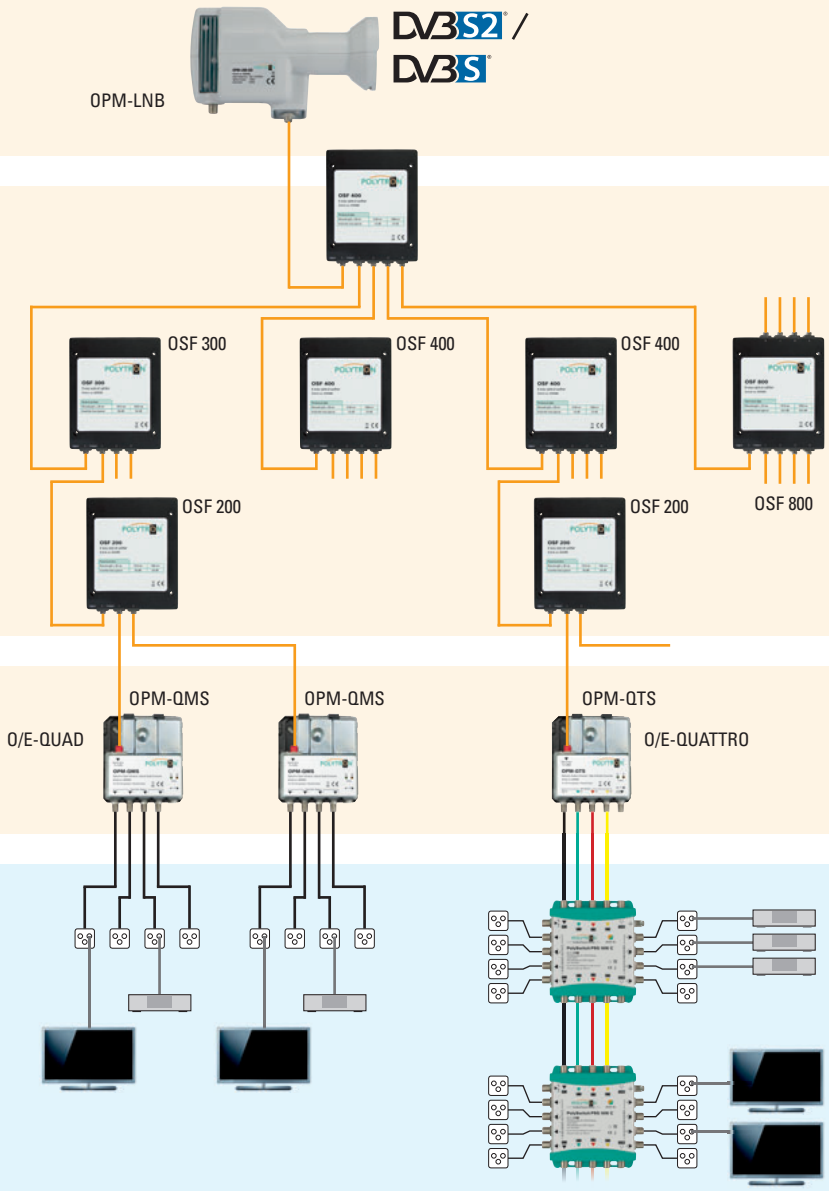


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POLYTRON's system

Fibre optic cable
Coax cable

Distribution networks with up to 64 optical end points



Optical LNBs
OPM-LNB 032
OPM LNB 064 page 4

Optical splitters
OSF 200, ... OSF 800 page 10

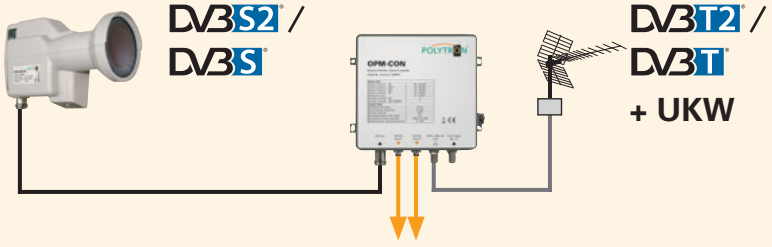
Optical cables
OFO ... optical outdoor cable
OFI ... optical indoor cable

page 10

Optical converters
OPM-QMS
OPM-QTS page 5

SAT reception on subscriber's site
POLYTRON PSG series multiswitches
POLYTRON SAT antenna outlets

Distribution networks with up to 256 optical terminal points



2 optical outputs, distribution via fibre optic cable

OPM-LNB 100 Kit
OPM-LNB 100 page 8
OPM-CON page 8
OPM-AS 4 page 10

Mounting accessories



Measuring instruments sender / receiver
Splice device page 12 ...

LNB with optical output

The optical LNB **OPM-LNB** converts the received satellite signal into optical signals. Each SAT level is stacked one after another and is converted to the 950 MHz - 5.45 GHz frequency range. The newly created frequency band is then transmitted via an optical wavelength of 1310 nm.

The optical signal distribution occurs over a single single-mode fibre optic cable. The LNB is powered via coax cable by the external 12 V power supply which has an F-connector.

- *converts four SAT levels into an optical output signal*
- *40 mm feed-horn*
- *power supply included in delivery*
- *FC/PC connection*

OPM-LNB 32

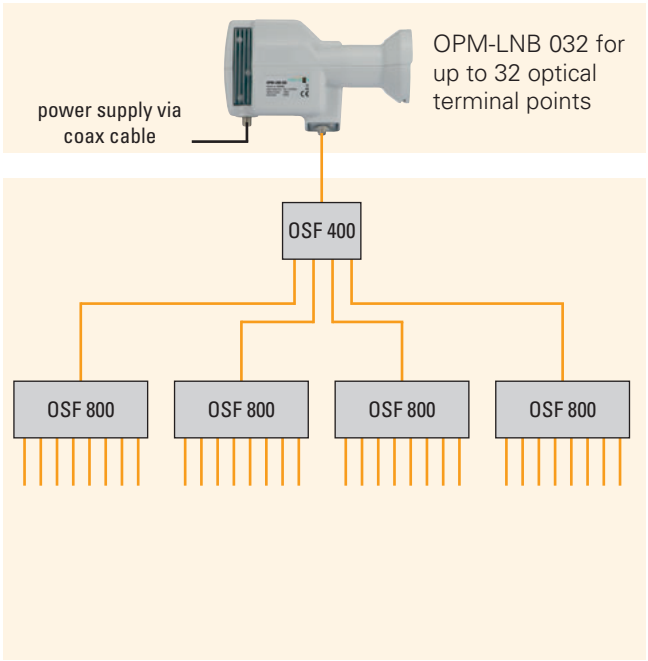
- *distribution for up to 32 fibre to SAT converters*
- *+ 7dBm performance*

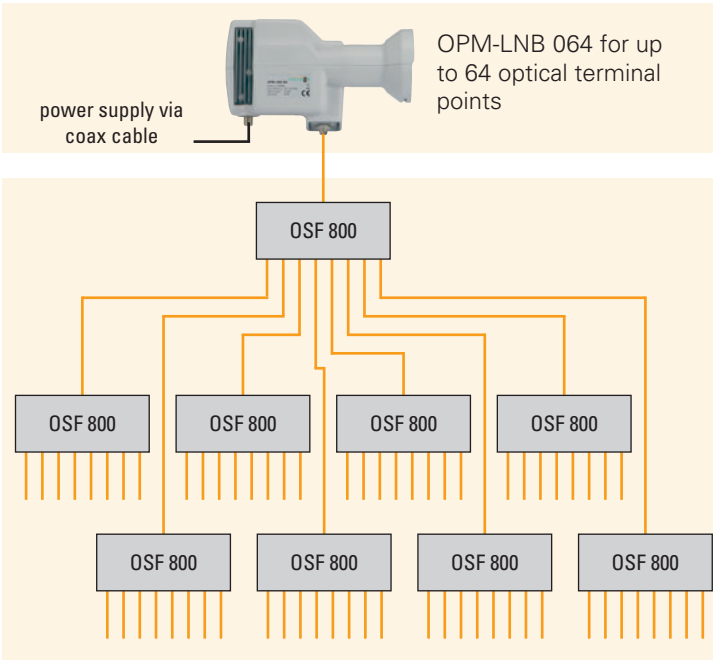
OPM-LNB 64

- *distribution for up to 64 fibre to SAT converters*
- *+10 dBm performance*



optical signal, distribution via single mode fibre cable





Technical data

Typ / Type	OPM-LNB 032	OPM-LNB 064
Artikel-Nr. / Article no.	9245500	9245502
Eingangsfrequenz / Input frequency	10,7 – 12,75 GHz	
Frequenzbereich / Frequency range	vertical: 0,95 – 3,0 GHz (stacked)	
Frequenzbereich / Frequency range	horizontal: 3,4 – 5,45 GHz (stacked)	
Optischer Ausgang / Optical output		
Wellenlänge / Wavelength of laser	1310 nm	
Ausgangsleistung / Output power	+7 dBm	+10 dBm
Rauschmaß / Noise level	0,5 dB	
Stromversorgung / Power supply	12 V (F-Stecker / F-type connector)	

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Optical converters

Quad converter

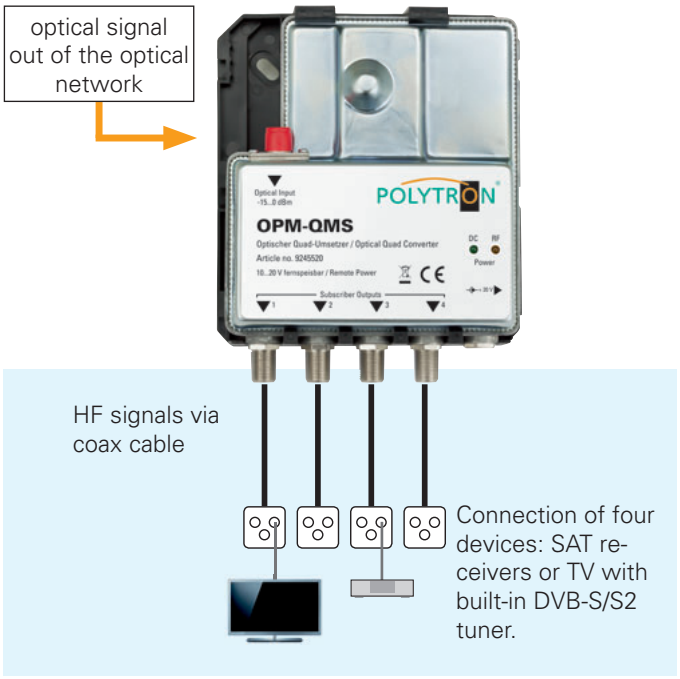
The converter **OPM-QMS** is a terminal station of the fibre-optic network which converts the light-wave signal back into the original satellite signal.
Four receivers can be connected to the quad converter **OPM-QMS.**
The converter is powered by the connected receivers. Alternatively, a 20 V DC power supply can assure the necessary power.

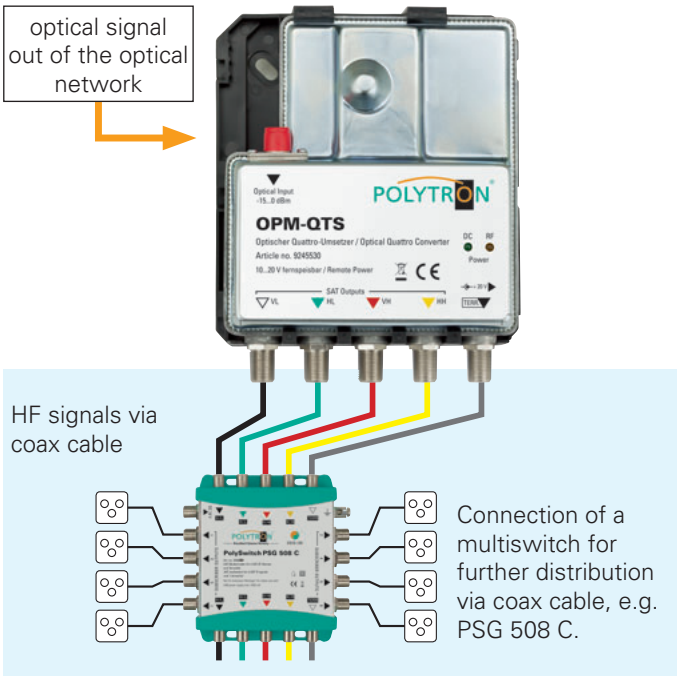
- *converts the optical signal back to the satellite level without loss of quality*
- *for direct connection of up to four receivers*
- *powered, optionally via the attached devices or a separate 20 V DC power supply*
- *FC/PC connectors*

Quattro converter

The converter **OPM-QTS** is a terminal station of the fibre-optic network which converts the light-wave signal back into the original satellite signal with terrestrial signal.
The **OPM-QTS** quattro converter gives out the four sat levels: HH, VH, HL, VL and a terrestrial signal, which allows for the direct connection to a multiswitch system.
The converter can be powered by the connected receivers, as well as by the multiwitch system. Alternatively, a 20 V DC power supply can assure the necessary power.

- *converts the optical signal back to the satellite level without loss of quality*
- *for connection to a multiswitch system*
- *powered, optionally via the attached devices or a separate 20 V DC power supply*
- *FC/PC connectors*





Typ / Type	OPM-QMS	OPM-QTS
Artikel-Nr. / Article no.	9245520	9245530
Eingangsfrequenz SAT / Input frequency SAT	0,95–5,45 GHz (gestapelt / stacked)	
Eingangsfrequenz TERR / Input frequency TERR	88–108 / 174–240 / 470–862 MHz	
Eingangsleistung / Input gain	-15...0 dBm	
Anschlüsse Eingang / Connectors input	FC/PC	
Ausgang / Outputs	4 Teilnehmer / 4 subscriber	Multischalter / Multiswitch
Ausgangsfrequenz / Output frequency	4x SAT + TERR.	1x HH, 1x VH, 1x HL, 1x VL, 1x TERR.
Ausgangspegel / Output level	70 dBµV	75 dBµV
Anschlüsse Ausgang / Output connectors	F-Stecker / F-plug	
Stromversorgung / Power supply	Receiver	Multischalter
	ext. Netzteil / ext. PSU 10–20 VDC	
Stromaufnahme / Power consumption	220 mA @ 10 V	210 mA @ 10 V

Power supply for OPM-QTS, OPM-QMS

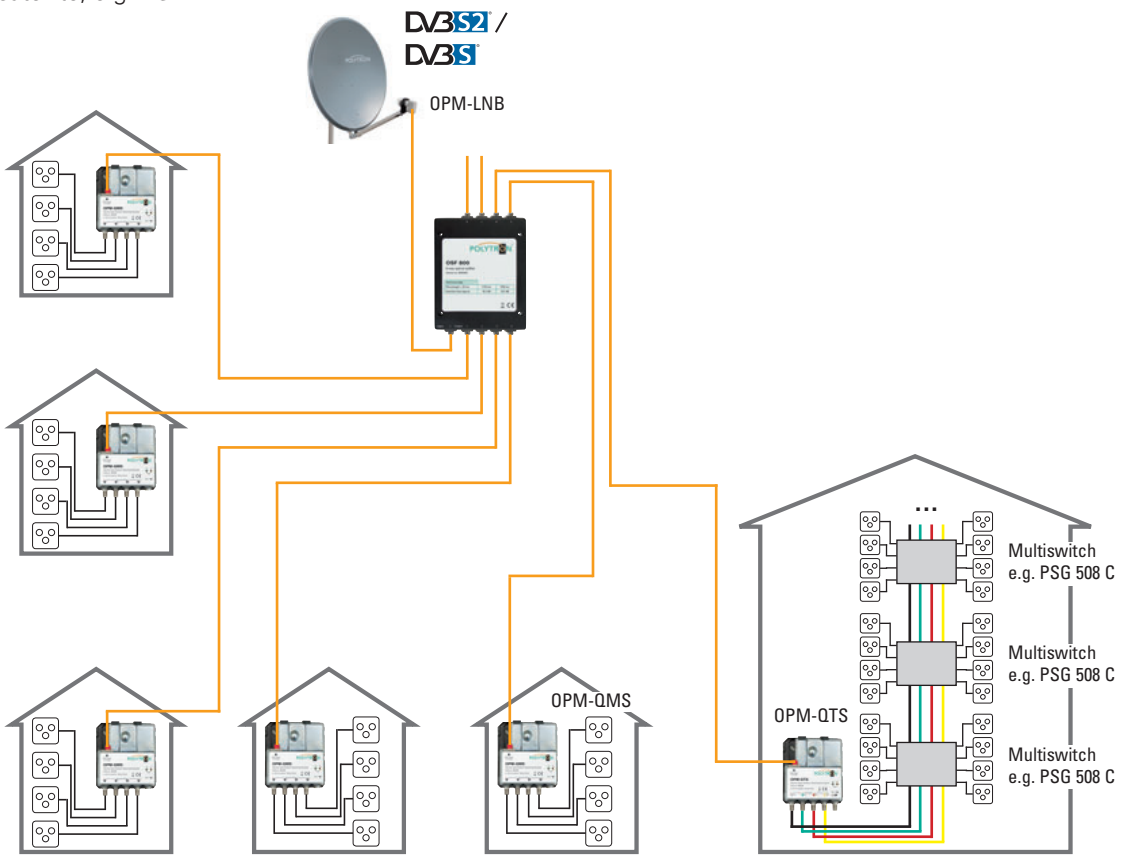
Input power: 230 V AC.
Output power: 20 V DC (1,2 A)

Article no. 9245532



Application example DVB-S/S2 distribution, 1 satellite

Horizontal distribution, e.g. for single family homes.
Reception of one satellite, e.g. ASTRA.



Offset dish

OSP-80 Light grey article no. 9223310
Anthracite article no. 9223510
Brick red article no. 9223110

LNB

OPM-LNB 032 article no. 9245500
Output power +7 dBm
OPM-LNB 064 article no. 9245502
Output power +10 dBm

Splitters

OSF ... see page 10

Converters

OPM-QMS QUAD converter
article no. 9245520
Direct connection of 4 subscriber devices.
OPM-QTS QUATTRO converter
article no. 9245530
Connection of a multiswitch for further distribution via coax cable.

Cable

OFI Fibre optic cable indoor, 1 fibre
OFO Fibre optic cable outdoor, direct burial cable, 2 fibres



OFI
indoor fibre optic cable

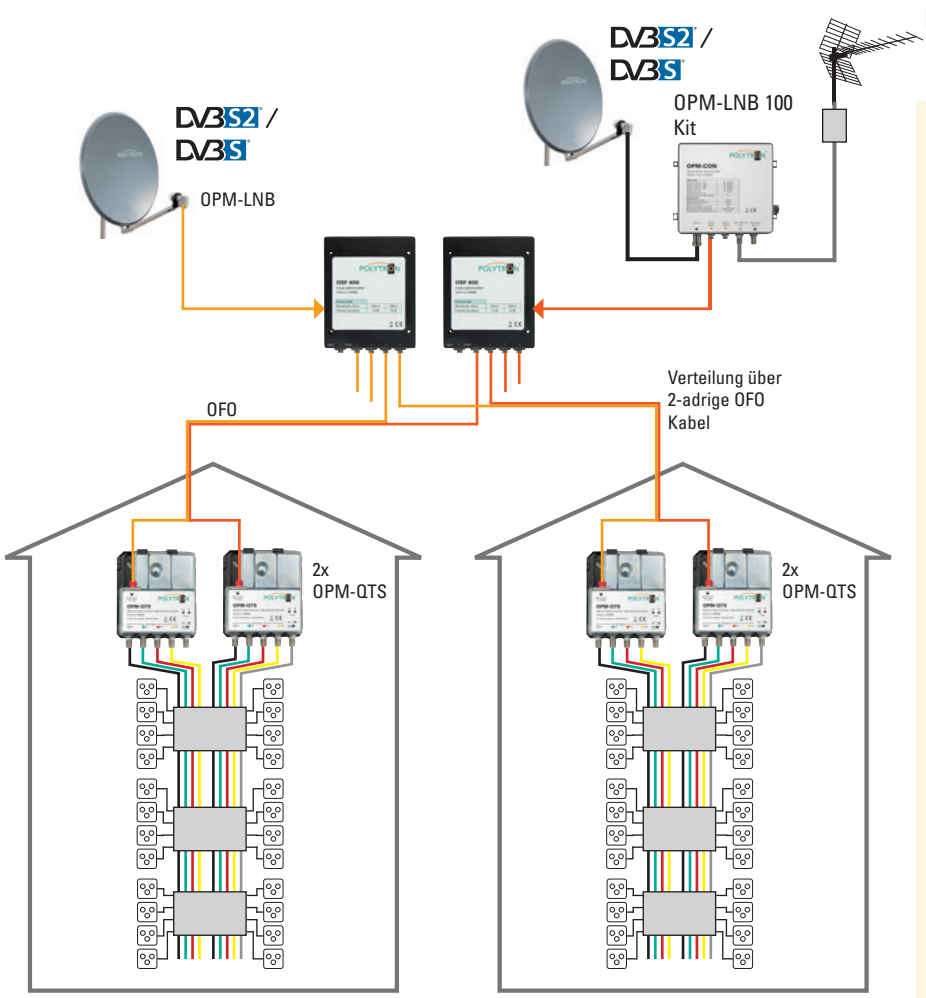


OFO
outdoor fibre optic cable

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Application example DVB-S/S2 distribution, 2 satellites

Reception of **2 satellites** (e.g. ASTRA and Hotbird)
and terrestrial signals, e.g. for multi famliy homes



Offset dish
OSP-80 Light grey article no. 9223310
Anthracite article no. 9223510
Brick red article no. 9223110

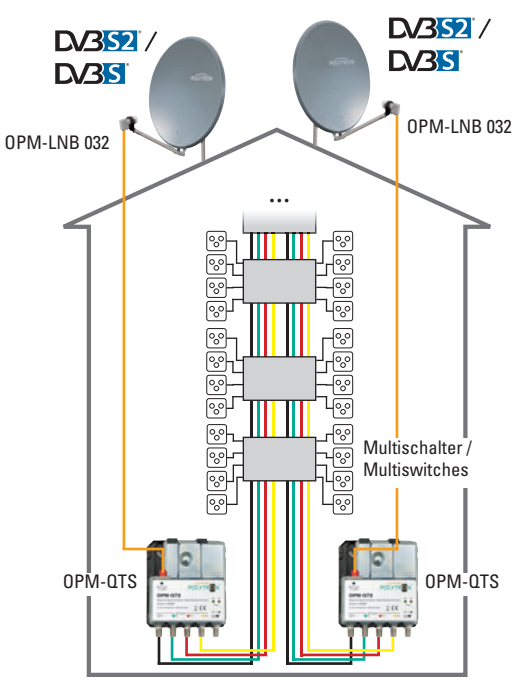
LNB
OPM-LNB 032 article no. 9245500
Output power +7 dBm
OPM-LNB 100 Kit article no. 9245505

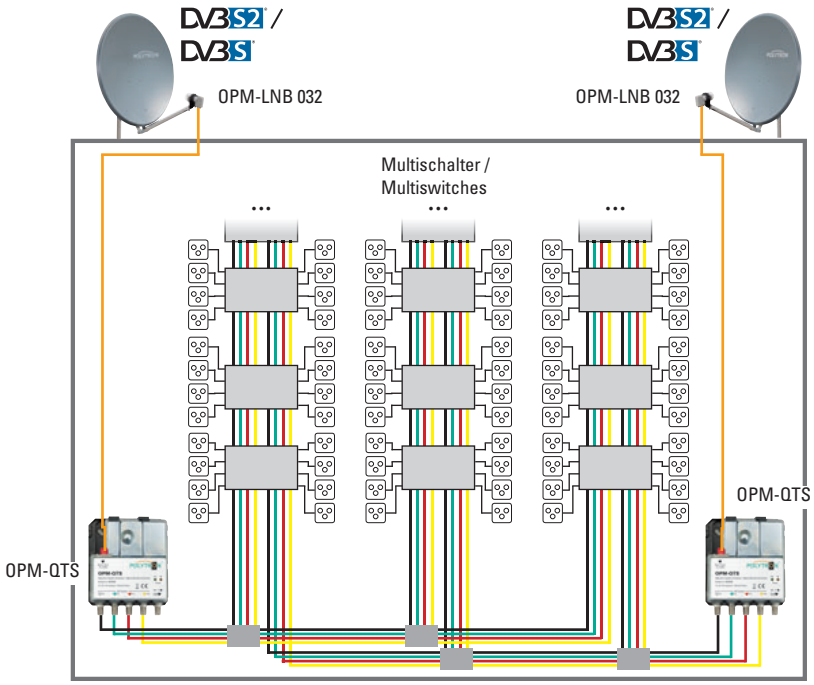
Splitters
OSF ... see page 10

Converters
OPM-QMS QUAD converter
article no. 9245520
Direct connection of 4 subscriber devices.
OPM-QTS QUATTRO converter
article no. 9245530
Connection of a multiswitch for further distribution via coax cable.

Cable
OFI Fibre optic cable indoor, 1 fibre
OFO Fibre optic cable outdoor, direct burial cable, 2 fibres

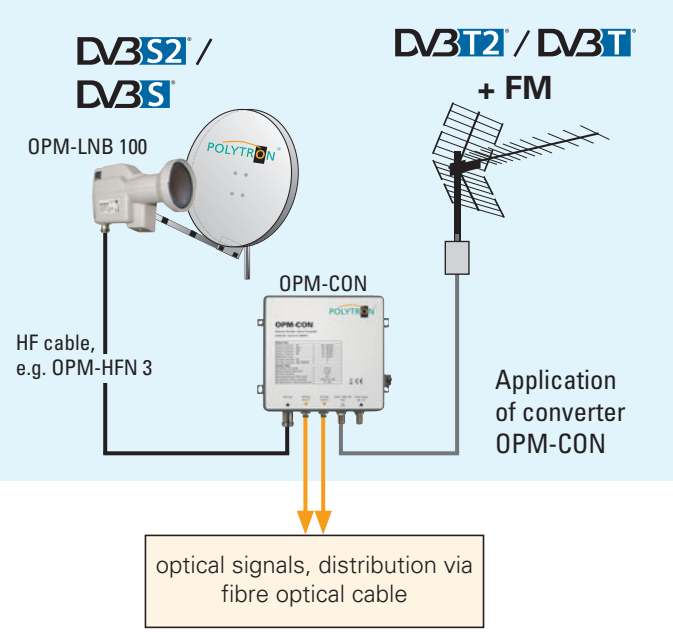
Reception of 2 satellites, e.g. ASTRA and HOTBIRD





Realize large distribution networks
The converting system

If more than 64 optical terminal units are needed, the **OPM-LNB 100 kit** will be used.
In this case, the HF output signal of the LNB 100 will be split by a four way splitter OPM-AS32 to up to four electrical / optical converters OPM-CON.
Concurrently a terrestrial signal can be fed to the converter. The converter features two optical outputs with 7 dBm performance, enabling 8 optical distribution networks with 256 optical termination units in total.



N type LNB OPM-LNB 100

The N type LNB 100 features a HF output providing four sat levels. The LNB is powered by the connected converter.

- for use with OPM-CON
- LNB power via n type IF cable



Typ / Type	OPM-LNB 100
Artikel-Nr. / Article no.	9245504
Eingangsfrequenz / Input frequency	10,7 – 12,75 GHz
Ausgangsfrquenz / Output frequency	950 – 5450 MHz
Rauschmaß / Noise figure	0,7 dB
Impedanz / Impedance	50 Ohm
Spannungsversorgung / Power supply	6,2 V

Electrical / optical transmitter OPM-CON

The electrical / optical transmitter OPM-CON converts the incoming satellite frequencies in the range of 950-5450 MHz into optical signals with a wavelength of 1310 nm.
The terrestrial input allows to feed-in DVB-T; DAB and FM into the optical distribution system.
The OPM CON features two independent optical outputs with each 7dBm performance.

- *converts HF signals of OPM-LNB 100 into optical signals*
- *LNB is powered via N-type HF cable*
- *power supply included in delivery*



Typ / Type		OPM-CON
Artikel-Nr. / Article no.		9245515
Eingang / Input		
Frequenz / Frequency	SAT	950 – 5450 MHz
Frequenz / Frequency	DVB-T	470 – 862 MHz
Frequenz / Frequency	DAB	174 – 240 MHz
Frequenz / Frequency	FM	88 – 108 MHz
Pegelbereich / Level		67 – 97 dBµV
Anschluss / Connector	SAT	N
Anschluss / Connector	DVB-T/DAB/FM	F
Ausgang / Output		
Wellenlänge / Wave length		1310 nm
Optische Leistung / Optical level		7dBm
Anschluss / Connector		FC/PC
Spannungsversorgung / Power supply		20 V
Stromaufnahme / Power consumption		< 500mA inkl. LNB
Betriebstemperatur / Operating temperature		-10...+50°C

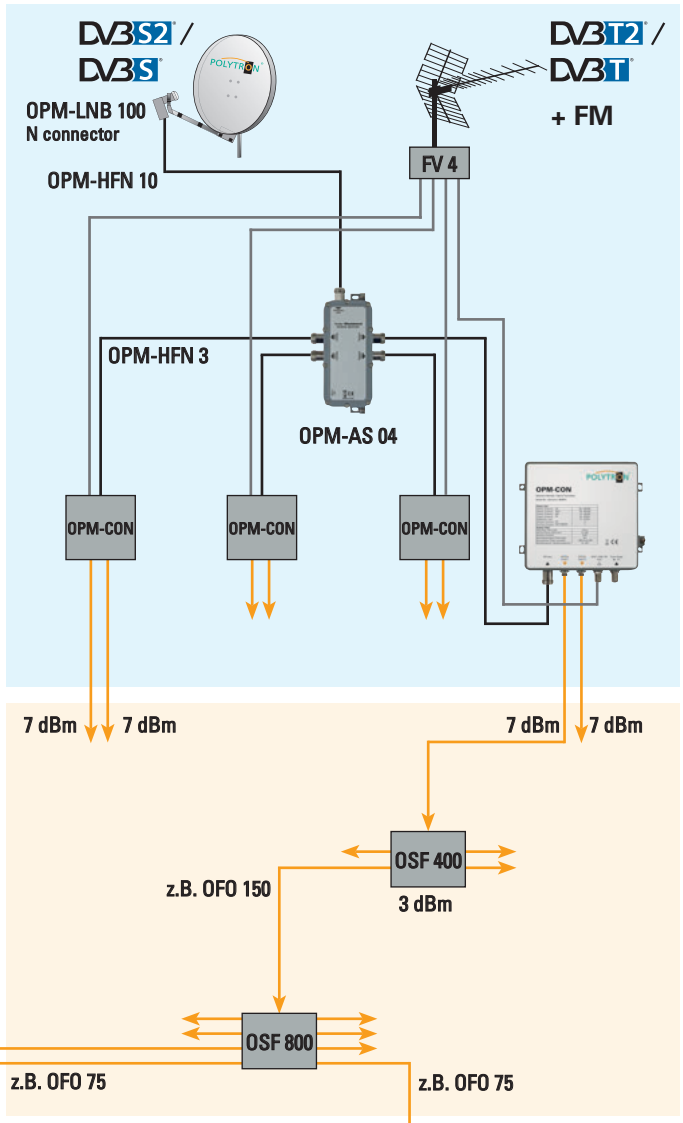
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Application example: Optical distribution networks with up to 256 optical termination units

To realize optical distribution systems with up to 256 optical termination units the LNB 100 is used. An active four way splitter OPM-AS 04 will be connected to the LNB.
Four converters with two optical outputs each can be feed by the signal. These eight optical outputs can be split to up to 256 optic / electric converter e.g. OPM-QTS. At each quattro converter OPM-QTS a multiswitch system can be operated.

1x	**OPM-LNB 100**	with N connector
1x	**OPM-AS 04**	active 4-way splitter / N connector
4x	**OPM-CON**	Power supplies included in delivery
1x	**OPM-HFN 10**	HF cable with N connector, length 10 m.
4x	**OPM-HFN 03**	HF cable with N connector, length 3 m.
8x	**OSF 400**	4-way splitter
32x	**OSF 800**	8-way splitter
256x	**OPM-QTS** resp. **OPM-QMS**	

Several optical fibre cables indoor (OFI ...) or outdoor direct burial cables (OFO ...)



Active HF splitter

OPM-AS 04 is an active 4-way splitter distributing the incoming HF signals of the OPM-LNB 100 (950-5450 MHz) up to four OPM-CON. The attenuation is 0 dB.
All connections are N-type.
To connect the LNB and the OPM-CON the N interconnection cables OPM HFN 03 or OPM HFN 10 are used.
At all four inputs the DC power pass for the LNB power supply is given.



- *splits the HF signals of the OPM-LNB 100*
- *powered by the converter via the OPM-CON*

Typ / Type	OPM-AS 04
Artikel-Nr. / Article no.	9245525
Eingangsfrequenz / Input frequency	950 – 5450 MHz
Anschlussdämpfung / Input Loss	0 dB
Impedanz / Impedance	50 Ohm
Anschluss / Connector type	N
Spannungsversorgung / Power supply	6,2 V DC
Stromaufnahme / Power consumption	< 230 mA
Betriebstemperatur / Operating temperature	-30...+65°C

Patch cable with N connections

HF cables with N connection to interconnect OPM LNB 100, OPM-AS04 and OPM-CON. Available lengths: 3 m and 10 m

Typ / Type	OPM-HFN 03	OPM-HFN 10
Artikel-Nr. / Article no.	9245513	9245518
Anschlüsse / Connectors	N	N
Länge / Length	3 m	10 m





N-type connector

Optical splitters OSF ...

The splitters OSF split an optical signal to 2, 3, 4 or 8 outputs. Each connection is equipped with a FC/PC socket. The incoming and outgoing optical cables can be connected directly to the splitter avoiding faults and needless couplings.









Typ / Type	OSF 200	OSF 300	OSF 400	OSF 800
Artikel-Nr. / Article no.	9245350	9245355	9245360	9245365
Optischer Verteiler / Optical splitter	2-fach	3-fach	4-fach	8-fach
Anschlüsse / Connectors	FC/PC	FC/PC	FC/PC	FC/PC
Dämpfung / Loss	3,6 dB	5,8 dB	7 dB	10,2 dB

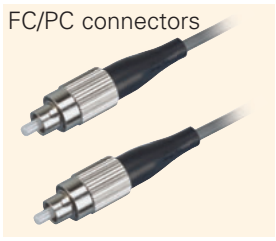
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Optical cable indoor

Monomode indoor fibre optical cable. 1 fibre. FC/PC connections on both ends.

- *LSZH halogen-free*
- *cable type G657A*
- *bending radius > 30 mm*

FC/PC connectors





Typ / Type	OFI 003	OFI 005	OFI 010	OFI 020	OFI 030
Artikel-Nr. / Article no.	9245400	9245402	9245404	9245406	9245408
Länge / Length	3 m	5 m	10 m	20 m	30 m
Anschlüsse / Connectors	FC/PC	FC/PC	FC/PC	FC/PC	FC/PC

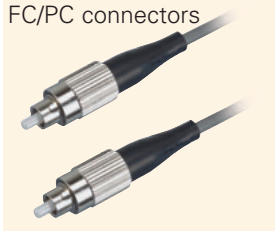
Typ / Type	OFI 040	OFI 050	OFI 075	OFI 100	OFI 150	OFI 200
Artikel-Nr. / Article no.	9245410	9245412	9245414	9245416	9245418	9245420
Länge / Length	40 m	50 m	75 m	100 m	150 m	200 m
Anschlüsse / Connectors	FC/PC	FC/PC	FC/PC	FC/PC	FC/PC	FC/PC

Optical cable outdoor

Monomode outdoor fibre optical cable. Direct burial cable. 2 fibres. FC/PC connections on both ends.

- *PE sheath*
- *cable diameter 5,9 mm*

FC/PC connectors





Typ / Type	OFO 030	OFO 040	OFO 050	OFO 075	OFO 100
Artikel-Nr. / Article no.	9245430	9245432	9245434	9245436	9245438
Länge / Length	30 m	40 m	50 m	75 m	100 m
Anschlüsse / Connectors	FC/PC	FC/PC	FC/PC	FC/PC	FC/PC

Typ / Type	OFO 150	OFO 200
Artikel-Nr. / Article no.	9245440	9245442
Länge / Length	150 m	200 m
Anschlüsse / Connectors	FC/PC	FC/PC

Optical test transmitter

The optical test transmitter **OME 100** is used to check the optical distribution structure. Equipped with FC/PC and SC/PC adapter and optical power of 7dBm the transmitter is very flexible.
The two important wavelengths 1310nm and 1550nm can be used. The device has an automatic switch-off function and a LCD-light to facilitate work in poorly lit rooms. With the small dimensions, the measuring instrument is extremely handy and the easy operation is realized via three buttons. In combination with the optical power meter **OME 200** the complete network can be measured to recognize and correct possible errors at an early stage. In some cases (burial networks), it is also advisable to measure the optical cable prior to installation to avoid extra work later.





Power supply and transport bag included in delivery

Technical data

Typ / Type	OME 100
Artikel-Nr. / Article no.	9245490
Ausgang / Output	
Wellenlängen / Wavelengths	1310 nm / 1550 nm
Sender Typ / Emitter type	FP-LD, LED
Ausgangsleistung / Output power	typ. -7 dBm
Ausgangsstabilität / Output stability	± 0,05 dB / 15 min ; ± 0,1 dB / 8 h
Modulationsfrequenzen / Modulation frequencies	CW.2 Hz @ 650 nm ; CW, 270 Hz, 1 KHz, 2 KHz @ 1310 nm, 1550 nm
Optischer Anschluss / Optical connector	FC/PC, SC/PC
Stromversorgung / Power supply	3x AA 1,5 V Batterien ; Netzteil
Batterielaufzeit / Battery operating time	45 h
Betriebstemperatur / Operating temperature	-10 ... +60 °C
Lagerungstemperatur / Storage temperature	-25 ... +70 °C
Maße (L x B x H) / Dimensions (L x W x H)	190 x 100 x 50 mm
Gewicht / Weight	0,37 g

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Optical power meter

The optical power meter **OME 200** is the perfect assistant when building and controlling an optical distribution line. Equipped with FC/PC and SC/PC adapter, a measuring range from-50 to + 30dBm, as well as a wavelength range from 800-1700 the power meter is very flexible. The device has an automatic switch-off function and a LCD light to facilitate work in poorly-lit rooms.
For reference measurements, zero calibration is possible. In combination with the optical test transmitter **OME 100** the complete network can be measured to recognize and correct possible errors at an early stage.
In some cases (burial networks), it is also advisable to measure the optical cable prior to installation to avoid extra work later.





Power supply and transport bag included in delivery

Technical data

Typ / Type	OPM-OME 200
Artikel-Nr. / Article no.	9245492
Eingang / Input	
Wellenlängen / Wavelengths	800–1700 nm
Sensor Typ / Detector type	InGaAs
Sensorgröße / Detector size	Ø 1,0 mm
Messbereich / Measurement range	-50...+30 dBm
Kalibrierte Wellenlängen / Calibrated wavelengths	850, 1300, 1310, 1490, 1550, 1625 nm
Auflösung / Resolution	0,01 dB
Optischer Anschluss / Optical connector	FC/CP ; SC/PC
Stromversorgung / Power supply	3x AA 1,5 V Batterien ; Netzteil
Batterielaufzeit / Battery operating time	140 h
Betriebstemperatur / Operating temperature	-10 ... +60 °C
Lagerungstemperatur / Storage temperature	-25 ... +70 °C
Maße (L x B x H) / Dimensions (L x W x H)	190 x 100 x 50 mm
Gewicht / Weight	0,37 g

Optical fibre fusion splicer

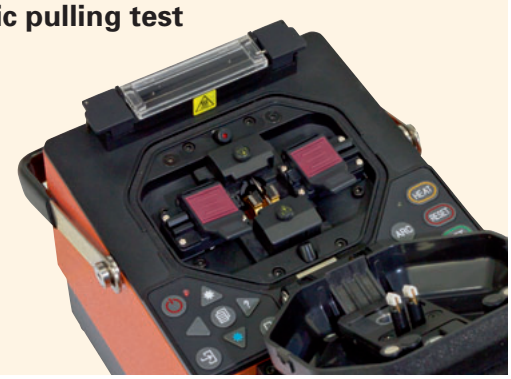
The **OPM-FS300** is an automatic 3 axis fibre optic splicing device with special precision positioning technology.
Due to the sturdy and reliable design the device is perfect in field operation.
Default programs enable a fast operation using common fibre optics.
The perfect quality of the splice connection is given by a test of the fibre angle and a terminal tensile test.
The whole splicing process takes 9 sec. Afterwards, the theoretical attenuation will be identified.

Included in delivery:

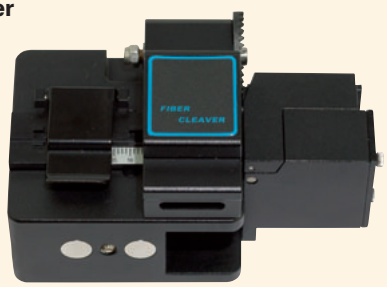
- *OPM-FS 300*
- Transport box, usable as installation aid
- *cleaning brush*
- *tweezer*
- *replacement electrode*
- *fibre stripper*
- *fibre cleaver*
- *carrying strap*
- *power supply*
- *cooling bracket*
- *user manual on CD*
- *USB cable (for software updates)*



- **3 axis splicer**
- **automatic core alignment**
- **test of the fibre angle**
- **automatic pulling test**



Fibre Cleaver



The POLYTRON cleaver creates a deliberate, controlled break in a fibre optical cable. The cut has got a perfectly flat endface, perpendicular to the longitudinal axis of the fibre. In combination with the splicer connections with lowest optical loss can be created.

Typ / Type	OPM-FS300
Artikel-Nr. / Article no	9245622
Faserarten / Applicable fibres	SM, MM, DS, NZDS
Freie Faserlänge / Fibre cleaved length	8 – 16 mm (Coating diameter 250 µm)
Faserdurchmesser / Fibre diameter	Cladding diameter 80 – 150 µm, coating diameter 100 – 1000 µm
Fibre count	single
Ausrichtungsmethode / Fibre alligning method	Core alligning, clad alligning, manual alligning
Spleißdämpfung Ø / Splice loss average	0,02 dB (SM); 0,01 dB (MM); 0,04 dB (DS); 0,04 dB (NZDS)
Spleißzeit / Splice time	Typ. 9 s (standard SM fibre)
Spleißprogramme / Splicing programs	53 (template), 40 (user)
Speicher für Prüfergebnisse / Storage for splice result	4000
Glasfaserabbild Vergrößerung / Fibre image magnification	300x ; 150x (X and Y view)
Zugkraft Test / Tension test	2 N
Batterie Kapazität / Battery capacity	typ. 160 (splice and heat)
Monitor	5,7“ TFT color
Temperaturbereich / Temperature range	-10°...50° C
Stromversorgung / Power supply	100-240 VAC / Li-Battery: 8000 mAh
Maße (L x B x H) / Dimensions (L x W x H)	150 x 150 x 150 mm
Gewicht / Weight	2,7 kg

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Product overview optical SAT distribution

Article no.	Bezeichnung	description	EAN-Code
9245500	OPM-LNB 032	LNB with optical output for up to 32 opt. terminal points	4250238510123
9245502	OPM-LNB 064	LNB with optical output for up to 64 opt. terminal points	4250238511496
9245505	OPM-LNB-100 Kit	LNB and E/O converter set with 2 opt. outputs for up to 256 optical terminal points	4250238510840
9245513	OPM-HFN 03	Patch cable for OPM-LNB 100, length 3 m	4250238510857
9245518	OPM-HFN 10	Patch cable for OPM-LNB 100, length 10 m	4250238510871
9245515	OPM-CON	Elektrical/optical converter for OPM-LNB 100	4250238510864
9245525	OPM-AS 04	active 4-way splitter for OPM-LNB 100	4250238510895
9245520	OPM-QMS	optical converter QUAD	4250238510147
9245530	OPM-QTS	optical converter QUATTRO	4250238510154
9245532	Power supply	for OPM-QMS resp. OPM-QTS	4250238510918
9245430	OFO 030	Fibre optical cable outdoor, 2 fibres, FC-PC connectors, length 30 m	4250238511120
9245432	OFO 040	Fibre optical cable outdoor, 2 fibres, FC-PC connectors, length 40 m	4250238511137
9245434	OFO 050	Fibre optical cable outdoor, 2 fibres, FC-PC connectors, length 50 m	4250238511144
9245436	OFO 075	Fibre optical cable outdoor, 2 fibres, FC-PC connectors, length 75 m	4250238511151
9245438	OFO 100	Fibre optical cable outdoor, 2 fibres, FC-PC connectors, length 100 m	4250238511168
9245440	OFO 150	Fibre optical cable outdoor, 2 fibres, FC-PC connectors, length 150 m	4250238511175
9245442	OFO 200	Fibre optical cable outdoor, 2 fibres, FC-PC connectors, length 200 m	4250238511182
9245400	OFI 003	Fibre optical cable indoor, FC-PC connectors, length 3 m	4250238511229
9245402	OFI 005	Fibre optical cable indoor, FC-PC connectors, length 5 m	4250238511236
9245404	OFI 010	Fibre optical cable indoor, FC-PC connectors, length 10 m	4250238511243
9245406	OFI 020	Fibre optical cable indoor, FC-PC connectors, length 20 m	4250238511250
9245408	OFI 030	Fibre optical cable indoor, FC-PC connectors, length 30 m	4250238511267
9245410	OFI 040	Fibre optical cable indoor, FC-PC connectors, length 40 m	4250238511274
9245412	OFI 050	Fibre optical cable indoor, FC-PC connectors, length 50 m	4250238511281
9245414	OFI 075	Fibre optical cable indoor, FC-PC connectors, length 75 m	4250238511298
9245416	OFI 100	Fibre optical cable indoor, FC-PC connectors, length 100 m	4250238511304
9245418	OFI 150	Fibre optical cable indoor, FC-PC connectors, length 150 m	4250238511311
9245420	OFI 200	Fibre optical cable indoor, FC-PC connectors, length 200 m	4250238511328
9245490	OME 100	Optical test sender	4250238511403
9245492	OME 200	Optical power meter	4250238511410
9245602	OPM-ATL	Armour tool	4250238511564
9245604	OPM-KST	Kevlar cutter	4250238511571
9245606	OPM-FST	Fibre stripper	4250238511588
9245622	OPM-FS300	Splicer	4250238511618
9245612	OFP 150	Patch cable / Pigtail	4250238511557
9245614	OPM-Cleaning set	Cleaning set	4250238511595
9245616	OPM-Cleaner stick	Cleaning stick	4250238511601
9245618	OPM-splice sleeve	Splice connection protector 100 pcs. pack	4250238511625
9245350	OSF 200	Optical splitter 2-way	4250238511335
9245355	OSF 300	Optical splitter 3-way	4250238511342
9245360	OSF 400	Optical splitter 4-way	4250238511359
9245365	OSF 800	Optical splitter 8-way	4250238511366
9245450	OFA 005	Attenuator 5 dB FC/PC	4250238511373
9245452	OFA 010	Attenuator 10 dB FC/PC	4250238511380
9245454	OFA 015	Attenuator 15 dB FC/PC	4250238511397
9245555	OPM-FC/PC-BC	Adaptor FC/PC -> FC/PC	4250238510192
9245560	OPM-SC/APC-FC/PC	Patch cable FC/PC -> SC/APC	4250238510208

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Plug & Play mounting board for fast and easy installation of optical / IF inhouse distribution.

- *reception of 2 satellites (e.g. ASTRA and Hotbird) as well as terrestrial signals*
- *for 8 resp. 16 subscribers*
- *further optical distribution optional*



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