Rosenberger

PreCONNECT® DUODECIM

PRODUCT INFORMATION

PreCONNECT® DUODECIM solution is available in two end face quality features: BASIC and PURE

Define the end-face quality according to your application requirements:

Quality feature BASIC is our well-proven, high-grade, standards compliant product in terms of end-face geometry, defect, and cleanness, providing excellent IL and RL performance:

- The PreCONNECT® factory-assembled plug & play system enables quick and reliable, cost efficient, installation and performance
- Harmonized modular components of the quality feature BASIC solution ensure end to end performance of the entire channel

Quality feature PURE is the enhanced version of our quality feature BASIC, but with more stringent defect and cleanliness screening and factory sealed, tamper evident adapter-interfaces.

- Guaranteed protection of the polished connector end-face against contamination and damage through sealed adapter-interfaces, enabling time savings during initial installation and commissioning due to the elimination of the need for cleaning and testing*/**.
- Quality feature PURE provides an industry leading low random mate insertion and return loss (mean) which enables up to six (6) mated pairs in a 10G/OM4 application up to 300m.

Part numbers:

Quality feature BASIC: The part numbers XXXAXXXX listed in this document are valid for the BASIC quality feature.

Quality feature PURE: Add a "**P**" to the end of the quality feature BASIC part number (*Example: XXXAXXXX**P***)

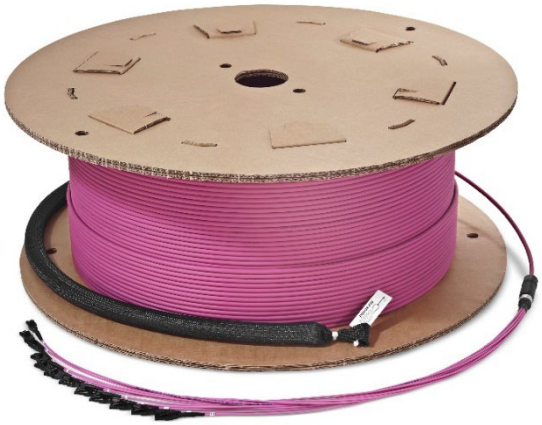
(Note: PURE trunk cables have factory attached sealed coupling adapters incorporated and thus utilize empty patch panels and enclosures)

* *While Rosenberger does not require permanent link or channel testing for warranty registration of PURE installations due to guaranteed performance, certain customers will require testing documentation for their records.*

** *Only applicable when all components are of quality feature PURE and installed by trained PURE installers.*

Applications:

Infrastructure and IT room cabling within data centers



System consists of:

- Factory assembled FO breakout and loose tube cables, FRNC-LSZH indoor cables, up to 144 fibers with connector system MTP® with 12 fibers per MTP® channel
- Port-breakout with MTP® module cassettes with LC front
- Three 19“ panel systems selectable: SMAP-G2 SD, SMAP-G2 HD and SMAP-G2 UHD
- Suitable patchcords
- Useful accessories
- Patch location rack

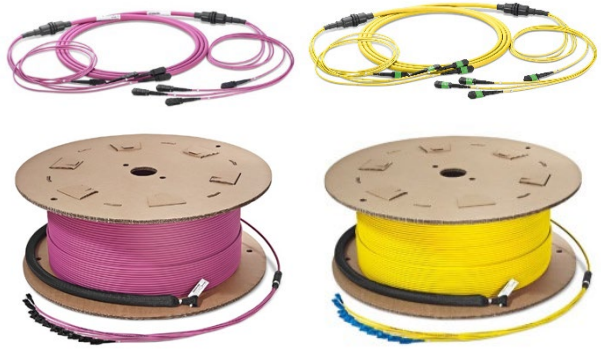
Features:

- For all who still have conventional transceivers for duplex applications like 10/25/50 GBE and 8/16/32 GFC on both cabling sides in foreseeable time, but want to be prepared for the migration to MPO based parallel optics applications
- Trunks and 19“ panels can be further used for migration

Your benefits at a glance:

- MTP® cabling system with use of all 12 fibers per MTP® channel for duplex applications
- Cost-effective migration to MPO based parallel optics applications
- Investment protection through optimal use of the trunks for duplex applications and MPO based parallel optics applications
- Fast and safe installation trough factory assembled plug & play systematic
- Highest quality and cost-efficiency through factory assembling
- PreCONNECT® cabling systems consist of perfectly harmonized modular single components

PreCONNECT® DUODECIM trunks



PreCONNECT® DUODECIM combined with PreCONNECT® OCTO

PreCONNECT® OCTO patchcords

LC-COMPACT patchcords

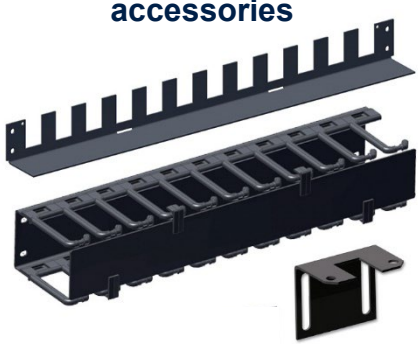
patch location rack

19” panel systems

SMAP-G2 SD

SMAP-G2 HD and UHD

accessories



Applications:

MTP® (MPO) based data center cabling with 12 fibers per MTP® channel:

Appropriate for duplex applications:

- **10/25/50 GBE**
- **8/16/32 GFC**

Simple migration to parallel optics applications:

- **40/100/200 GBASE-SR4**
- **400GBASE-SR4.2 BiDi**
- **4x16 und 4x32 GFC**
- **400 GBASE-SR8 and SR16**
- **100G PSM4**
- **4x10 GBASE-LR**
- **200GBASE-DR4**
- **400GBASE-DR4**

System description:

Our PreCONNECT® DUODECIM cabling system consists of:

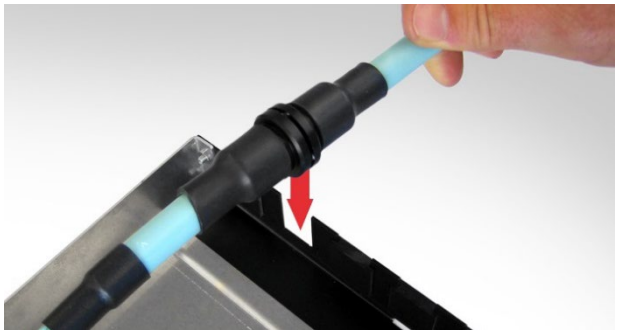
- DUODECIM breakout-trunk called factory assembled FO breakout cables or alternatively DOUDECIM trunk called loose tube cables, both with up to 12 MTP® 12 fiber channels (12x12=144 fibers).
- 19” panel systems with part front plates with MTP® adapters and DUODECIM module cassettes
- OCTO patchcords
- Useful accessories
- Patch location racks

Rosenberger OSI brought already 1991 high fibercount factory assembled FO trunk cables to the market. PreCONNECT® STANDARD was the first in Europe developed and manufactured, high fibercount and modular „plug & play“ FO cabling system.

Properties:

PreCONNECT® DUODECIM breakout-trunks I-F(ZN)HH breakout cables:

Equipped with PreCONNECT® square interfaces on both sides which can be tool-less hooked into the 19” panel systems for tensile and torsion resistant fixing of the trunks.



The trunk connector legs are fitting for the 19“ panel systems and are packaged in non pull resistant dust-proof foil tubes. On request with tensile strength, crush resistant, kink and torsion resistant, installation tubes deliverable.

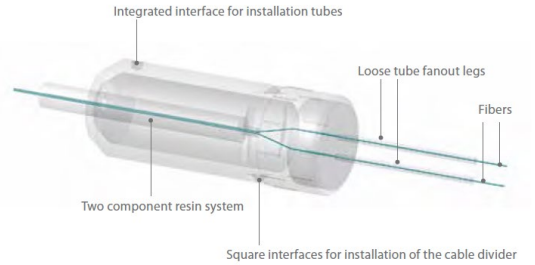
Properties:

PreCONNECT® DUODECIM Trunks I-B(ZN)BH loose tube cables:

Both cable ends are molded within PreCONNECT® cable dividers and assembled with connector legs fitting for the 19” panel systems.

The PreCONNECT® cable divider is a splice-less furcation to separate the fibers of loose tube cables. He is one of the mechanically and thermally most robust cable dividers for loose tube cables at smallest diameters.
With its integrated PreCONNECT® square interface, the cable divider can be tool-less hooked into PreCONNECT® panels for tensile and torsion resistant fixing of the trunks.

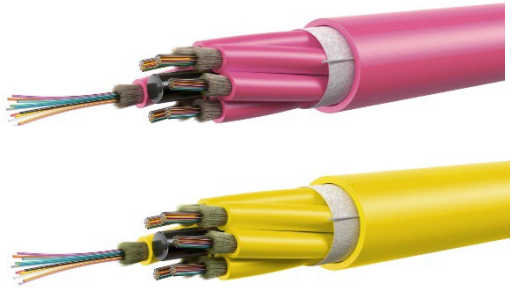
The connector legs and cable dividers are equipped with 600 N tensile strength, crush resistant, kink and torsion resistant, installation tubes.



Cable types:

- PreCONNECT® DUODECIM breakout-trunks: I-F(ZN)H(ZN)H 8 fibers CPR class B2ca or Dca dependent on stock and I-F(ZN)HH n x 12 fibers breakout cables CPR class Cca or Dca dependent on stock
- PreCONNECT® DUODECIM trunks: I-B(ZN)BH n x 12 fibers loose tube cables CPR class B2ca
- Cable data, see separate cable data sheets

I-F(ZN)HH n x 12 fibers breakout cables



I-B(ZN)BH n x 12 fibers loose tube cables

Properties:

Connector types:

- DUODECIM trunks: MTP® male 12 fiber
- DUODECIM module cassettes: MTP® female 12 fiber
- OCTO patchcords and multijumpers: MTP® female 4+4 fiber OCTO

Adapter types:

- MTP® multimode: TIA type B “aligned key” „1 to 12“ grey
- MTP® singlemode TIA type A “opposed key” „1 to 1“ green
- Description of the adapter types A and B see product information PreCONNECT OCTO

Polarity:

- DUODECIM trunks: TIA method B „1 to 12“
- DUODECIM module cassettes: see pages of the products
- OCTO patchcords and multijumpers: see pages of the products

Fiber types:

- Multimode OM4 bend-insensitive
- Singlemode G.657.A1 bend-insensitive and backwards compatible to G.652.D
- Fiber data, see separate fiber data sheets

Delivery form:

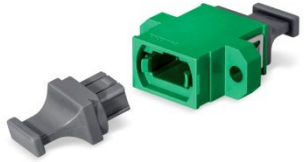
Dependent on the length as cable ring or on cardboard or wooden drum,
100% IL factory measured with measurement protocol, product label with serial number on both sides.

MTP® female 12 fiber

MTP® female 4+4 fiber OCTO

TIA type B „aligned key“ „1 to 12“ grey

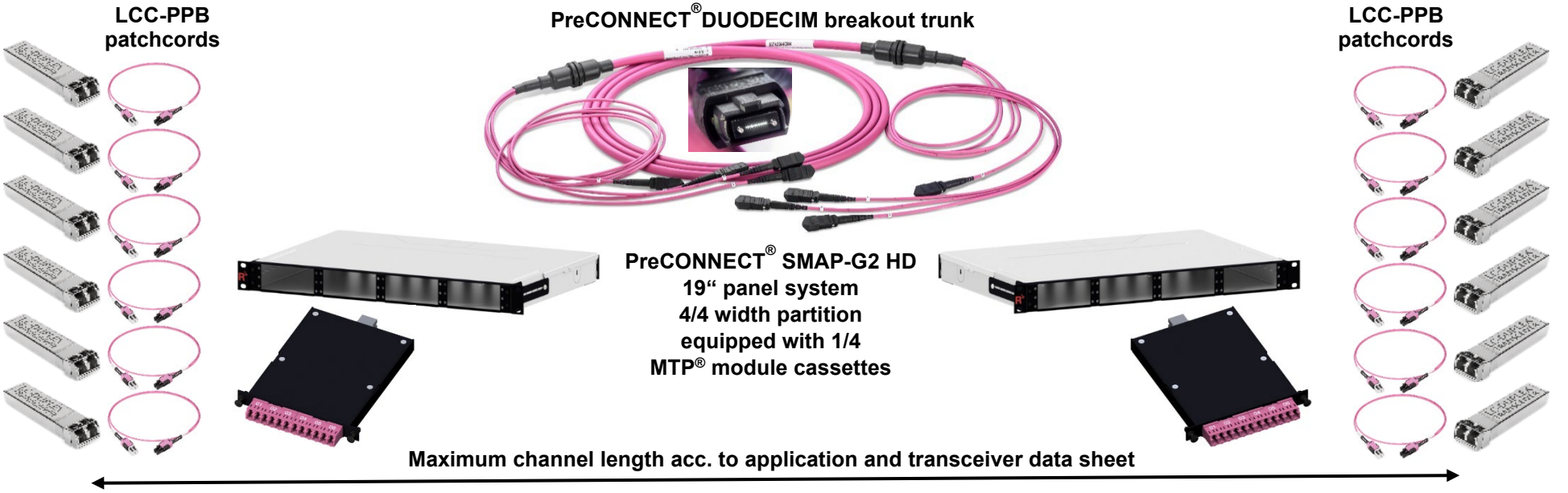
TIA type A „opposed key“ „1 to 1“ green

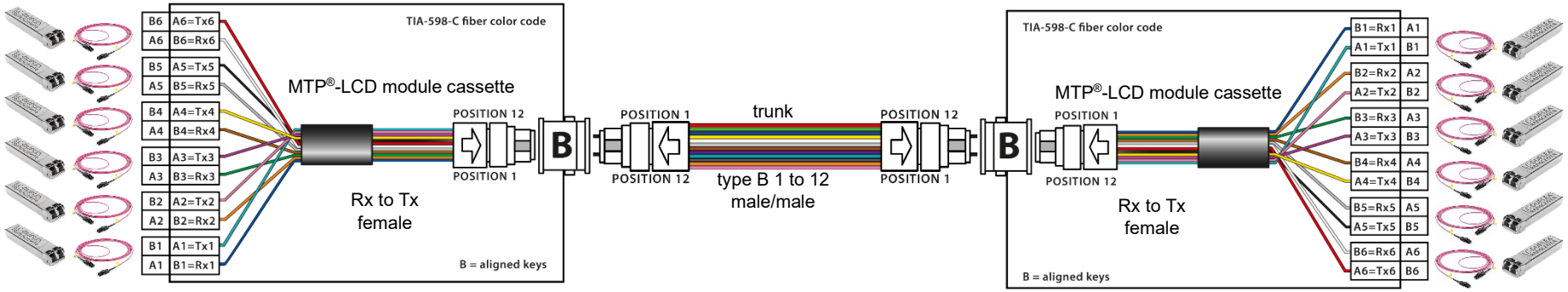


PreCONNECT® DUODECIM application case duplex application:

MULTIMODE

- **10/25/50 GBASE-SR**
- **8/16/32 GFC MM**





trunk IEC fiber color code / modul cassette TIA fiber color code / MTP® adapter B „aligned keys“ „1 to 12“

PreCONNECT® DUODECIM migration to SR4 parallel optics Port-breakout with module cassette:

MULTIMODE

- **40 / 100 / 200 GBASE-SR4 MPO to 4x10 / 4x25 / 4x50 GBASE-SR LC-Duplex**
- **4x16 / 4x32 GFC MPO to 4x16 / 4x 32 GFC LC-Duplex**

PreCONNECT® OCTO patchcords

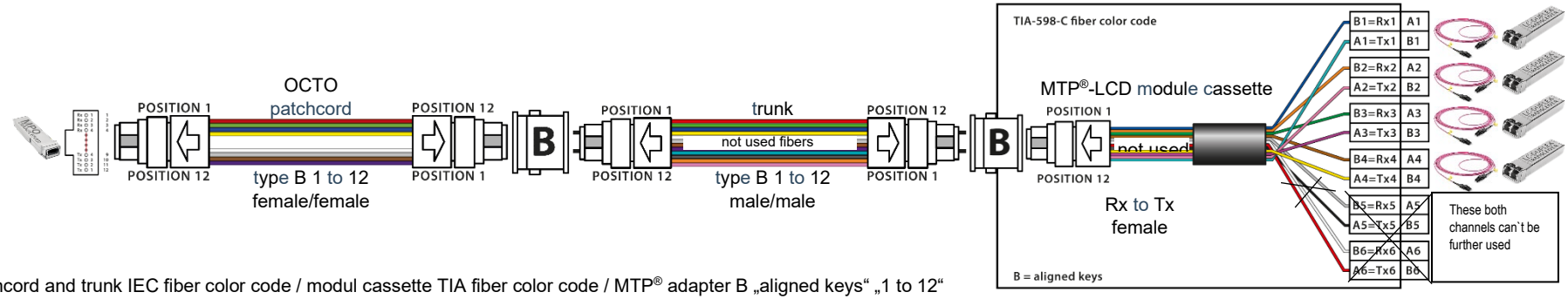
PreCONNECT®DUODECIM breakout trunk

PreCONNECT® SMAP-G2 HD
19“ panel system
4/4 width partition
equipped with 1/4
MTP® adapter part front plates
and module cassettes

LCC-PPB patchcords

Maximum channel length acc. to application and transceiver data sheet

1. DUODECIM trunks can be used further, the inner four fibers of each MTP® channel are not used any longer.
2. Replace DUODECIM module cassettes at the left MM MPO transceiver side by part-front-plates with MTP® adapters and replace LCC-PPB patchcords by PreCONNECT® OCTO MTP® patchcords.
3. DUODECIM module cassettes at the right duplex side can be used further, but only channel 1 to 4, channel 5 and 6 are not used any longer.
4. This cabling version can be built cheaper with PreCONNECT® OCTO, because there the trunks have only 8 instead of 12 fibers per MTP® cannel.

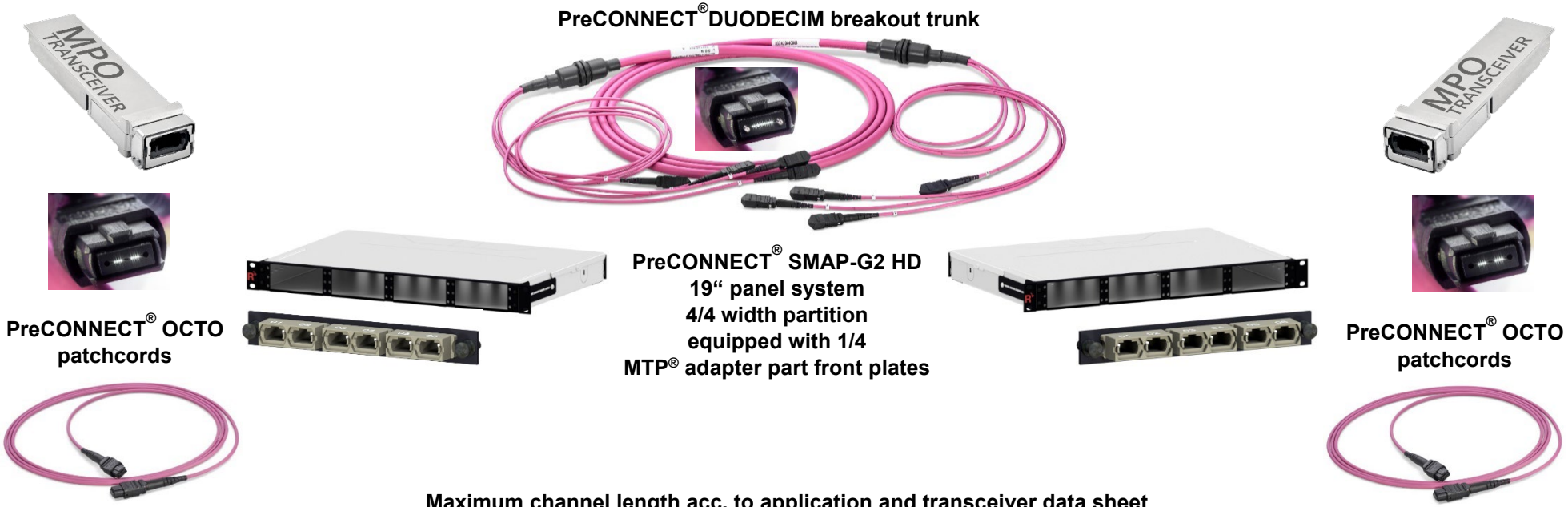


patchcord and trunk IEC fiber color code / modul cassette TIA fiber color code / MTP® adapter B „aligned keys“ „1 to 12“

PreCONNECT® DUODECIM migration to SR4 parallel optics on both sides:

MULTIMODE

- **40 / 100 / 200 GBASE-SR4 and 400GBASE-SR4.2 BiDi MPO-MPO**



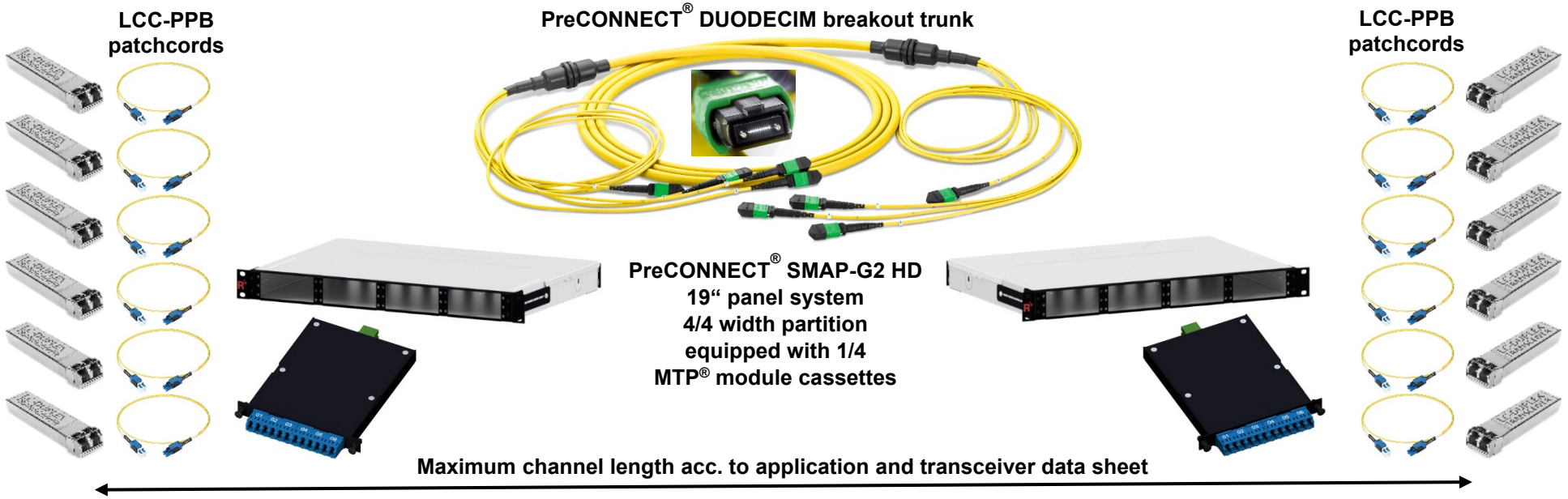
1. DUODECIM trunks can be used further, the inner four fibers of each MTP® channel are not used any longer.
2. Replace on both sides DUODECIM module cassettes by part-front-plates with MTP® adapters and LCC-PPB patchcords by PreCONNECT® OCTO MTP® patchcords.
3. This cabling version can be built cheaper with PreCONNECT® OCTO, because there the trunks have only 8 instead of 12 fibers per MTP® channel.

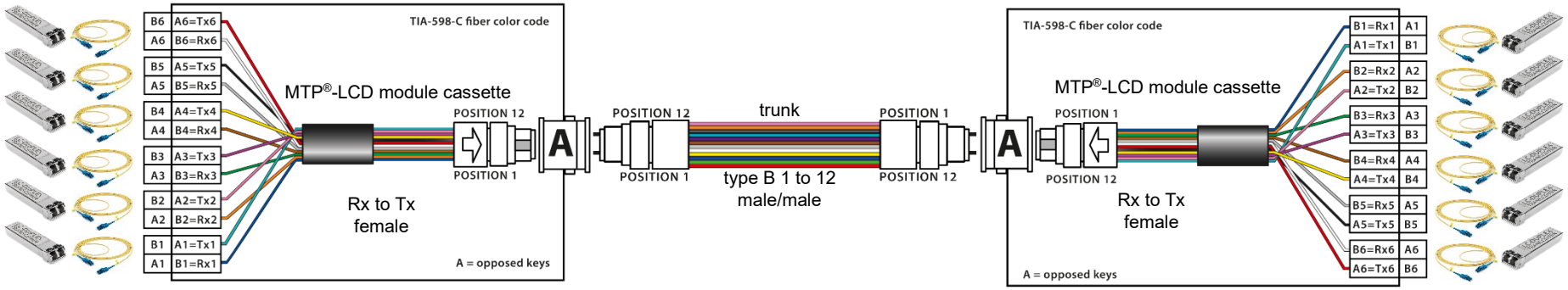
patchcord and trunk IEC fiber color code / MTP® adapter B „aligned keys“ „1 to 12“

PreCONNECT® DUODECIM application case duplex application:

SINGLEMODE

- **10/25/50 GBASE-LR**
- **16/32 GFC SM**





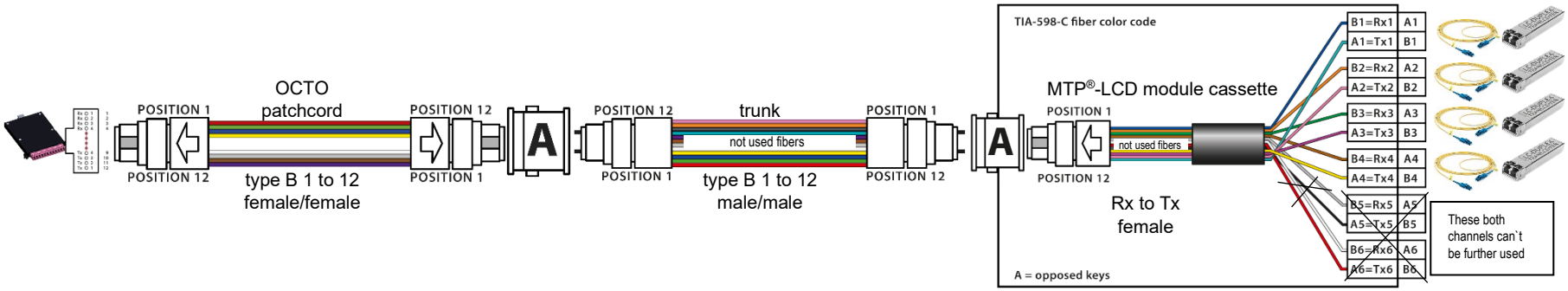
trunk IEC fiber color code / modul cassette TIA fiber color code / MTP® adapter A „opposeded keys“ „1 to 1“

PreCONNECT® DUODECIM migration to SM parallel optics port-breakout with module cassette:

SINGLEMODE

- **100G PSM4 MPO auf 4x25 GBASE-LR LC-Duplex**
- **4x10 GBASE-LR MPO auf 4x10 GBASE-LR LC-Duplex**
- **200GBASE-DR4 MPO auf 4x50 GBASE-LR LC Duplex**
- **400GBASE-DR4 MPO auf 4x100 GBASE-LR LC Duplex**

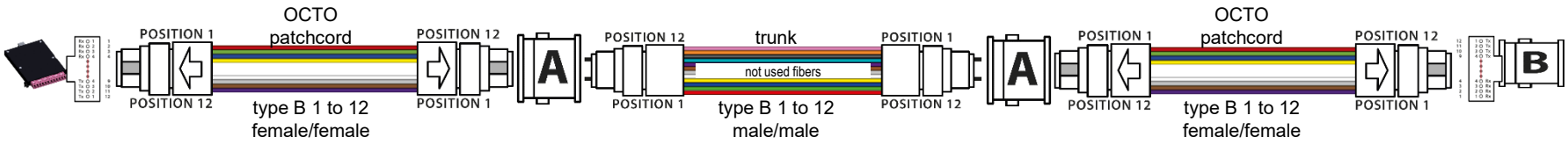
1. DUODECIM trunks can be used further, the inner four fibers of each MTP® channel are not used any longer.
2. Replace DUODECIM module cassettes at the left SM MPO transceiver side by part-front-plates with MTP® adapters and replace LCC-PPB patchcords by PreCONNECT® OCTO MTP® patchcord.
3. DUODECIM module cassettes at the right duplex side can be used further, but only channel 1 to 4, channel 5 and 6 are not used any longer.
4. This cabling version can be built cheaper with PreCONNECT® OCTO, because there the trunks have only 8 instead of 12 fibers per MTP® channel.



PreCONNECT® DUODECIM migration to SM parallel optics on both sides:

- **100G PSM4 MPO-MPO**
- **4x10 GBASE-LR MPO-MPO**
- **200GBASE-DR4 MPO-MPO**
- **400GBASE-DR4 MPO-MPO**

1. DUODECIM trunks can be used further, the inner four fibers of each MTP® channel are not used any longer.
2. Replace on both sides DUODECIM module cassettes by part-front-plates with MTP® adapters and LCC-PPB patchcords by PreCONNECT® OCTO MTP® patchcords.
3. This cabling version can be built cheaper with PreCONNECT® OCTO, because there the trunks have only 8 instead of 12 fibers per MTP® channel.



patchcord and trunk IEC fiber color code / modul cassette TIA fiber color code / MTP® adapter A „opposeded keys“ „1 to 1“

PreCONNECT® DUODECIM OM4 breakout trunk:

MULTIMODE

- Breakout cable n x 12 OM4 fibers FRNC-LSZH
- MTP® 12, MM, male, Elite quality
- Polarity TIA method B “1 to 12”
- MTP® leg-length = standard stepped

Length definition:

- Order length = length between the connectors of the longest legs at both sides, not between the PreCONNECT® square interfaces.
- Possible order-lengths: From 5 to 2000 meter

Part numbers, length variable:

Number of DUODECIM channels	Part numbers	Cable structure	Number of fibers	Cable CPR class
1	037A2080OM4	1 x 12	12	1)
2	037A2043OM4	2 x 12	24	2)
4	037A2044OM4	4 x 12	48	2)
8	037A2045OM4	8 x 12	96	Cca
12	037A2046OM4	12 x 12	144	Cca

1) B2ca or Dca dependent on stock
2) Cca or Dca dependent on stock

Length tolerance:

Trunk length	Tolerance
<= 10m	+/- 50cm
> 10m <= 30m	+/- 100cm
> 30m <= 100m	+/- 150cm
> 100m	+/- 2%

Connector leg lengths:

Number of DUODECIM channels	Leg lengths [cm]
1	79
2	79 to 87 stepped
4	79 to 95 stepped
8	79
12	79
Production tolerance – 7 cm	

PreCONNECT® OCTO SM breakout trunk:

SINGLEMODE

- Breakout cable n x 12 SM fibers FRNC-LSZH
- MTP® 12, SM, male, Standard quality
- Polarity TIA method B “1 to 12”
- MTP® leg-length = standard stepped

Length definition:

- Order length = length between the connectors of the longest legs at both sides, not between the PreCONNECT® square interfaces.
- Possible order-lengths: From 5 to 2000 meter

Part numbers, length variable:

Number of DUODECIM channels	Part numbers	Cable structure	Number of fibers	Cable CPR class
1	037A2086G657A1	1 x 12	12	1)
2	037A2095G657A1	2 x 12	24	Cca
4	037A2082G657A1	4 x 12	48	Cca
8	037A2083G657A1	8 x 12	96	Cca
12	037A2084G657A1	12 x 12	144	Cca
1) B2ca or Dca dependent on stock				

Length tolerance:

Trunk length	Tolerance
<= 10m	+/- 50cm
> 10m <= 30m	+/- 100cm
> 30m <= 100m	+/- 150cm
> 100m	+/- 2%

Connector leg lengths:

Number of DUODECIM channels	Leg lengths [cm]
1	79
2	79 to 87 stepped
4	79 to 95 stepped
8	79
12	79
Production tolerance – 7 cm	

PreCONNECT® DUODECIM OM4 trunk:

MULTIMODE

- Loose tube cable n x 12 OM4 fibers FRNC-LSZH
- MTP® 12, MM, male, Elite quality
- Polarity TIA method B “1 to 12”
- MTP® leg-length = standard stepped

Length definition:

- Order length = length between the connectors of the longest legs at both sides, not between the PreCONNECT® cable dividers.
- Possible order-lengths: From 5 to 2000 meter

Part numbers, length variable:

Number of DUODECIM channels	Part numbers	Cable structure	Number of fibers	Cable CPR class
4	**024A0157OM4**	**4 x 12**	**48**	**B2ca**
8	**024A0156OM4**	**8 x 12**	**96**	**B2ca**
12	**024A0158OM4**	**12 x 12**	**144**	**B2ca**

Length tolerance:

Trunk length	Tolerance
<= 10m	+/- 50cm
> 10m <= 30m	+/- 100cm
> 30m <= 100m	+/- 150cm
> 100m	+/- 2%

Connector leg lengths:

Number of DUODECIM channels	Leg lengths [cm]
4	79 to 95 stepped
8	79
12	79
Production tolerance – 7 cm	

PreCONNECT® DUODECIM SM trunk:

SINGLEMODE

- Loose tube cable n x 12 SM fibers FRNC-LSZH
- MTP® 12, SM, male, Standard quality
- Polarity TIA method B “1 to 12”
- MTP® leg-length = standard stepped

Length definition:

- Order length = length between the connectors of the longest legs at both sides, not between the PreCONNECT® cable dividers.
- Possible order-lengths: From 5 to 2000 meter

Part numbers, length variable:

Number of DUODECIM channels	Part numbers	Cable structure	Number of fibers	Cable CPR class
4	**024A0215G657A1**	**4 x 12**	**48**	**B2ca**
8	**024A0216G657A1**	**8 x 12**	**96**	**B2ca**
12	**024A0217G657A1**	**12 x 12**	**144**	**B2ca**

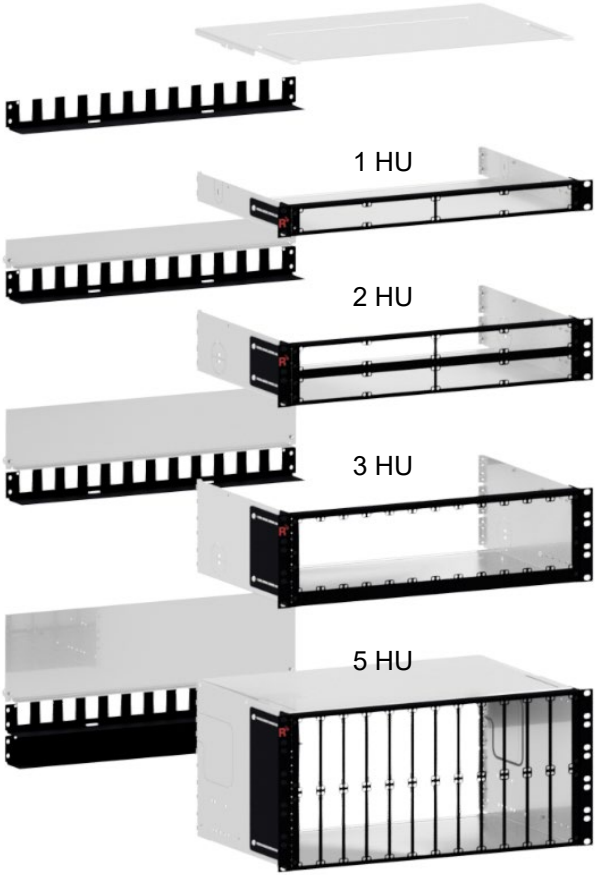
Length tolerance:

Trunk length	Tolerance
<= 10m	+/- 50cm
> 10m <= 30m	+/- 100cm
> 30m <= 100m	+/- 150cm
> 100m	+/- 2%

Connector leg lengths:

Number of DUODECIM channels	Leg lengths [cm]
4	79 to 95 stepped
8	79
12	79
Production tolerance – 7 cm	

PreCONNECT® SMAP-G2 Standard Density (SD) 19” panel system:



Port density:

- 48 LC-Duplex or MTP® ports per HU at the 1, 2 and 3 HU panels and 57.6 per HU (total 288) at the 5 HU panel

Dimensions:

- Width: 19“
- Height: 1, 2, 3 and 5 HU
- Depth: 200 mm and 300 mm, see product information SMAP-G2 SD

Part numbers:

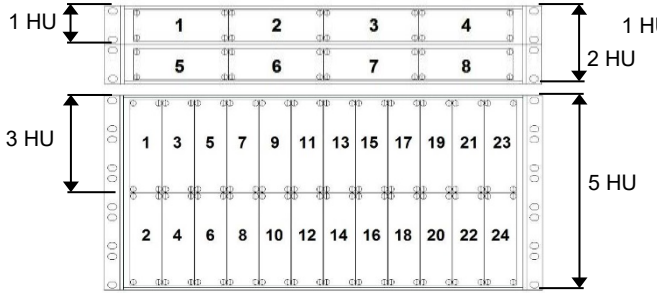
SMAP-G2 SD empty distribution panels, RAL9005 black, back plane with 12 PreCONNECT® square interfaces:

1 HU, depth 300 mm	171A0001
1 HU, depth 200 mm	171A0020
2 HU, depth 300 mm	172A0001
3 HU, depth 300 mm	173A0001
5 HU, depth 300 mm	175A0001

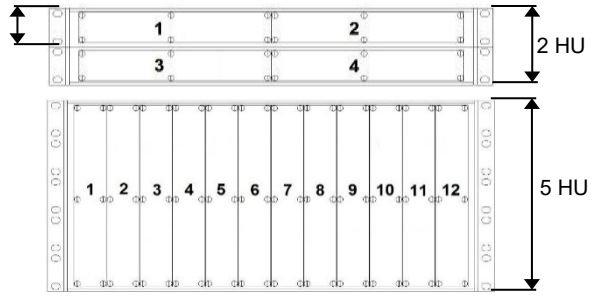
Find panels with other back plane configurations and further information in our product information SMAP-G2 SD.

SMAP-G2 SD panels for PURE trunks are described behind in this document.

Front granularity with 1/4 PFPs



Front granularity with 1/2 PFPs



SMAP-G2 SD 1HU 1/4 or 1/2 part front plates with matrix numbering:

Part numbers RAL9005 black			
1 HU 1/4 Blind PFP		170A0001	
1 HU 1/2 Blind PFP		170A0002	
PFP type	**Number and type of ports**	**for fiber type**	
		MM	**SM**
		grey type B “aligned key	green type A “opposed key”
1 HU 1/4	6 x MTP®	170A0630TB	170A0620
1 HU 1/4	8 x MTP®	170A0141TB	170A0140
1 HU 1/4	12 x MTP®	170A0636TB	170A0623
1 HU 1/2	12 x MTP®	170A0670TB	170A0660
1 HU 1/2	24 x MTP®	170A0674TB	170A0664
Find part numbers for panels factory assembled with part front plates in our product information SMAP-G2 SD.			

1 HU 1/4 Blind-PFP

1 HE 1/2 Blind PFP

1 HU 1/4 PFP 6 MTP®

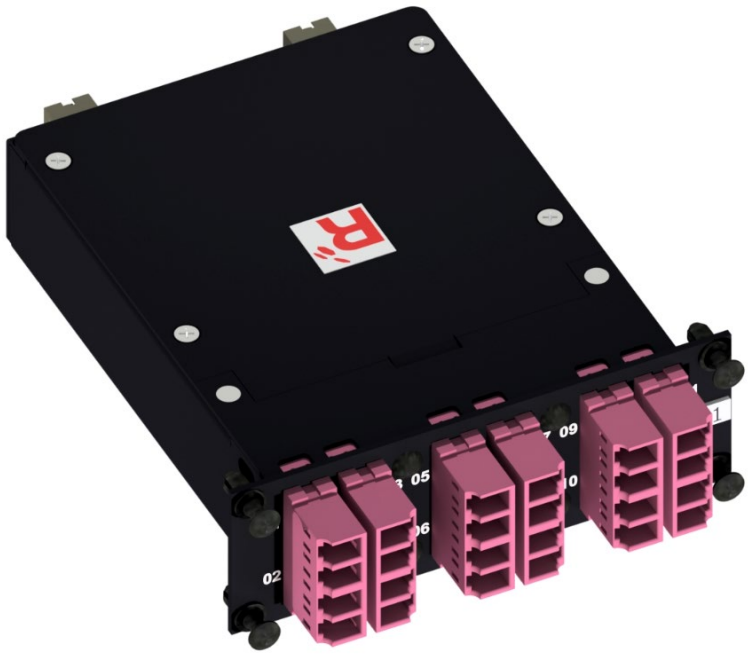
1 HU 1/4 PFP 8 MTP®

1 HU 1/4 PFP 12 MTP®

1 HU 1/2 PFP 12 MTP®

1 HU 1/2 PFP 24 MTP®

SMAP-G2 SD 24 fiber MTP®-LC module cassettes fitting for PreCONNECT® DUODECIM trunks:



Properties:

- For Port-breakout of PreCONNECT® DUODECIM trunks with MTP® connectors
- Height: 1 HU
- Width: 1/4
- Depth: 115 mm
- Polarity: Rx to Tx
- 2 x MTP® female port 12F DUODECIM at the rear side:
  - OM4: Elite quality, MTP® adapter type B „aligned key" grey
  - SM: Standard quality, MTP® adapter type A „opposed key" green
- 12 LC-Duplex ports at the front side
- Toolless placement of the module cassettes into the panel from the front side, fixing with quick fasteners
- Material and colour:
  - Cassette body: aluminum powder coated RAL9005 black
  - Front: steel powder coated RAL9005 black

Part numbers RAL9005 black				
Number of 12F DUODECIM MTP® female ports at rear side	**Number of LC-Duplex ports at front side**	**OM4**	**SM LC-PC 0°**	**SM LC-APC 8°**
2	**2 DUODECIM groups of 6 = 12**	**170A2025OM4**	**170A2004**	**on request**
Find part numbers for panels factory assembled with MTP® module cassettes in our product information SMAP-G2 SD.				

PreCONNECT® SMAP-G2 High Density (HD) 19” panel system:

Port density:
- 72 LC-Duplex or MTP® ports per HU

Dimensions:
- Width: 19“
- Height: 1 HU and 2 HU
- Depth: 200 mm and 300 mm, see product information SMAP-G2 HD

Part numbers:

SMAP-G2 HD empty distribution panels, RAL9005 black, back plane with 12 PreCONNECT® square interfaces:

1 HU, 4/4 DUODECIM width partition, depth 300 mm	171H0010
1 HU, 4/4 DUODECIM width partition, depth 200 mm	171H0001
2 HU, 4/4 DUODECIM width partition, depth 300 mm	172H0001

Front granularity 4/4 DUODECIM width partition

1	4	7	10
2	5	8	11
3	6	9	12

Find panels with other back plane configurations and further information in our product information SMAP-G2 HD.

SMAP-G2 HD panels are not appropriate for PURE trunks.

LC-COMPACT Push-Pull-Boot (LCC-PPB) patchcords with cable diameter 2.0 mm or thinner must be used with this panel system, to be found behind in this product information.

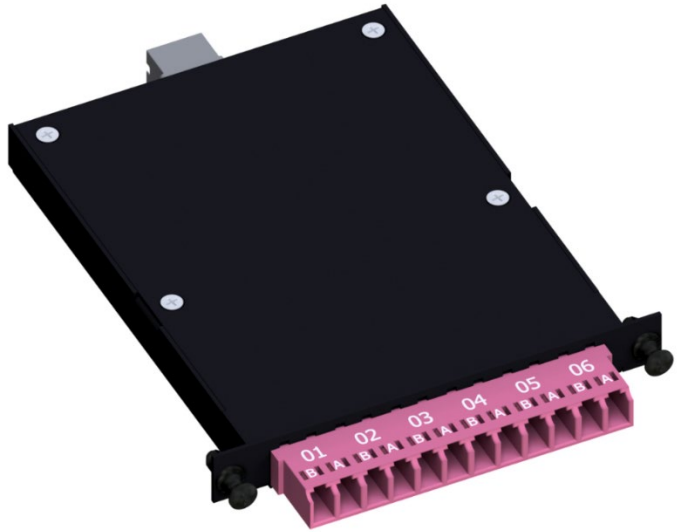
SMAP-G2 HD 1/3HU 1/4 part front plates with matrix numbering:

Part numbers RAL9005 black			
1/3 HU 1/4 Blind PFP		170H0001	
PFP type	**Number and type of port**	**for fiber type**	
		MM	**SM**
		grey type B “aligned key	green type A “opposed key”
1/3 HU 1/4	6 x MTP®	170H2013TB	170H2023
Find part numbers for panels factory assembled with part front plates in our product information SMAP-G2 HD.			

1/3 HU 1/4 PFP 6 MTP® (3 MTPD)

1/3HU 1/4 Blind PFP

SMAP-G2 HD 12 fiber MTP®-LC module cassettes fitting for PreCONNECT® DUODECIM trunks:



Properties:

- For Port-Breakout of PreCONNECT® DUODECIM trunks with MTP® connectors
- Fitting in SMAP-G2 HD panel with 4/4 width partition
- Height: 1/3 HU
- Width: 1/4
- Depth: 115 mm
- Polarity: Rx to Tx
- 1x MTP® female port 12F DUODECIM at the rear side:
  - OM4: Elite quality, MTP® adapter type B „aligned key” grey
  - SM: Standard quality, MTP® adapter type A „opposed key” green
- 6 LC-Duplex ports at the front side
- Toolless placement of the module cassettes into the panel from the front side, fixing with quick fasteners
- Material and colour cassette body and front: aluminum powder coated RAL9005 black

Part numbers RAL9005 black

Number of 12F DUODECIM MTP® female ports at rear side	Number of LC-Duplex ports at front side	OM4	SM LC-PC 0°	SM LC-APC 8°
1	1 DUODECIM group of 6 = 6	170H1005OM4	170H1004	on request

Find part numbers for panels factory assembled with MTP® module cassettes in our product information SMAP-G2 HD.

PreCONNECT® SMAP-G2 Ultra High Density (UHD) 19” panel system:

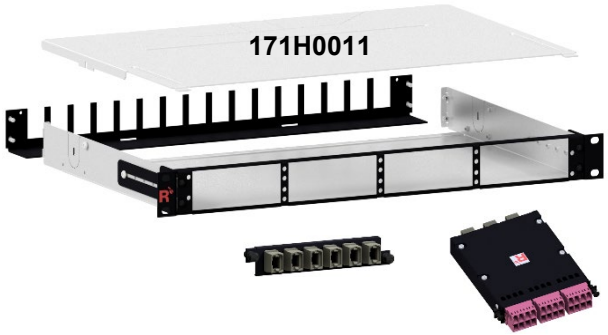
Port density:
- 96 LC-Duplex or MTP® ports per HU

Dimensions:
- Width: 19“
- Height: 1 HU
- Depth: 200 mm and 300 mm, see product information SMAP-G2 UHD

Part numbers:

SMAP-G2 UHD empty distribution panels, RAL9005 black, back plane with 16 PreCONNECT® square interfaces:

- 1HU, 4/4 DUODECIM width partition, depth 300mm: 171H0011



Front granularity 4/4 width partition

1	3	5	7
2	4	6	8

Find panels with other back plane configurations and further information in our product information SMAP-G2 UHD.

SMAP-G2 UHD panels are not appropriate for PURE trunks.

LC-COMPACT Push-Pull-Boot (LCC-PPB) patchcords with cable diameter 2.0 mm or thinner must be used with this panel system, to be found behind in this product information.

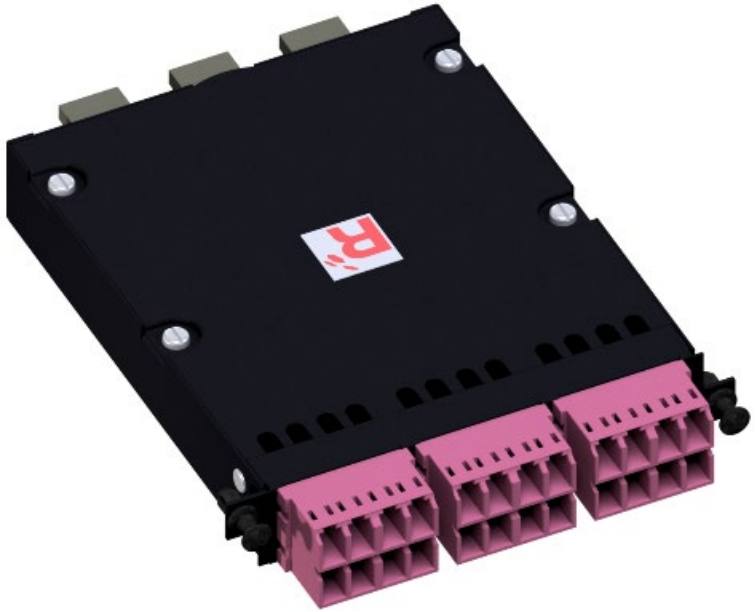
SMAP-G2 UHD 1/2 HU 1/4 part front plates:

Part numbers RAL9005 black			
1/2 HU 1/4 Blind PFP		170H3001	
PFP type	**Number and type of port**	**for fiber type**	
		MM	**SM**
		grau Typ B “aligned key	grün Typ A “opposed key”
1/2 HU 1/4	6 x MTP®	170H6004TB	170H6003
Find part numbers for panels factory assembled with part front plates in our product information SMAP-G2 UHD.			

1/2 HU 1/4 PFP 6 MTP®

1/2 HU 1/4 Blind PFP

SAMP-G2 UHD 24 fiber MTP®-LC module cassettes for 4/4 slot panels fitting for PreCONNECT® DUODECIM trunks



Properties:

- For Port-breakout of PreCONNECT® DUODECIM trunks with MTP® connectors
- Fitting in SMAP-G2 UHD panel with 4/4 width partition
- Height: 1/2 HU
- Width: 1/4
- Depth: 115 mm
- Polarity: Rx to Tx
- 2x MTP® female port 12F DUODECIM at the rear side:
  - OM4: Elite quality, MTP® adapter type B „aligned key" grey
  - SM: Standard quality, MTP® adapter type A „opposed key" green
- 12 LC-Duplex ports at the front side
- Toolless placement of the module cassettes into the panel from the front side, fixing with quick fasteners
- Material and colour cassette body and front: aluminum powder coated RAL9005 black

Part numbers RAL9005 black				
Number of 12F DUODECIM MTP® female ports at rear side	**Number of LC-Duplex ports at front side**	**OM4**	**SM LC-PC 0°**	**SM LC-APC 8°**
2	**2 DUODECIM groups of 6 = 12**	**170H4001OM4**	**170H4004**	**on request**
Find part numbers for panels factory assembled with MTP® module cassettes in our product information SMAP-G2 UHD.				

SMAP-G2 SD PURE

19“ Distribution Panels empty:

Part numbers RAL9005 black, 300mm depth	
1 HU	**171A0001P**
2 HU	**172A0001P**
3 HU	**173A0001P**
5 HU	**175A0001P**

PreCONNECT® PURE MTP®

adapter interface
at Trunk connector legs

Standard back plane configuration for
max. 12 Trunk cable dividers per panel

SMAP-G2 SD PURE Part-Front-Plates PFP

1 HU 1/4 PFP for 6 and 8 MTP® adapter interfaces

1 HU 1/2 PFP for 12 MTP® adapter interfaces

1 HU 1/4 Blind-PFP

1 HU 1/2 Blind-PFP

SMAP-G2 SD PURE 1 HU 1/4 and 1/2 part-front-plates part numbers RAL9005 black	
PFP type / number of adapter slots	**SMAP-G2 PURE part-front-plates without adapters**
1/4 Blind-PFP	170A0001P
1/2 Blind-PFP	170A0002P
1/4 / 6 MTP®	170A0630P
1/4 / 8 MTP®	170A0140P
1/2 / 12 MTP®	170A0670P

PreCONNECT® OCTO OM4 patchcords:

MULTIMODE

Single jacket:

Single jacket cable 8 OM4 fibers FRNC-LSZH
MTP® 4+4 OCTO, MM, female, Elite quality
Polarity TIA method B “1 to 12”

Part number, length variable:

Diameter 2.0 mm: 080A2063OM4
Diameter 3.0 mm: 080A2030OM4

Double jacket:

Double jacket cable 8 OM4 fibers FRNC-LSZH
Diameter 3.0 / 4.5 mm
MTP® 4+4 OCTO, MM, female, Elite quality
Polarity TIA method B “1 to 12”

Standard lengths of the 3.0 mm single jacket MTP®-legs = 0.5 m,
others on request

Part number, length variable:

080A2031OM4

PreCONNECT® OCTO patchcords polarity TIA method B “1 to 12” are suitable for transceiver-transceiver direct-attach

PreCONNECT® OCTO SM patchcords:

SINGLEMODE

Single jacket:

Single jacket cable 8 SM fibers FRNC-LSZH
MTP® 4+4 OCTO, SM, female, Standard quality
Polarity TIA method B “1 to 12”

Part number, length variable:

Diameter 2.0 mm: 080A2065G657A1
Diameter 3.0 mm: 080A2036G657A1

Double jacket:

Double jacket cable 8 SM fibers FRNC-LSZH, diameter 3.0 / 4.5 mm
MTP® 4+4 OCTO, SM, female, Standard quality
Polarity TIA method B “1 to 12”

Standard lengths of the 3.0 mm single jacket MTP®-legs = 0.5 m,
others on request

Part number, length variable: 080A2045G657A1

PreCONNECT® OCTO patchcords polarity TIA method B “1 to 12” are suitable for transceiver-transceiver direct-attach

Patchcords:

Properties:
Kink and crush resistance optimized for environmental conditions
Suitable for operation in temperatures from -10 °C to +60 °C
Polarity:
Full-duplex cables with duplex connectors on both sides “crossed” A to B in accordance with ISO/IEC 11801 and EN 50173

Length tolerances:
Up to 1 m = - 50 mm
2 m to 3 m = - 100 mm
4 m to 25 m = - 200 mm
Longer than 25 m = - 1 %

Delivery form:
Attenuation measured in accordance with IEC 61300-3-4 „C“ or „Substitution“ method, measurement values on request
Serial number labels at the cable ends on both sides
Individually packaged in foil bags with product ID label

For our SMAP-G2 HD and SMAP-G2 UHD 19“ panel systems only patchcords with diameter 2.0mm or thinner should be applied.

With LC-COMPACT (LCC) connectors for SMAP-G2 SD 19“ panel system

With LC-COMPACT Push-Pull-Boot (LCC-PPB) connectors for SMAP-G2 HD and UHD 19“ panel system

Part numbers
Duplex Patchcord cable type round I-V(ZN)H and I-V(ZN)H(ZN)H FRNC-LSZH

Cable diameter	Connectors	Length	OM4	SM PC 0°	SM APC 8°
1.6 mm	LC-COMPACT PPB » LC-COMPACT PPB	variable	087A6949OM4	087A6948G657A1	087A6950G657A1
2.0 mm	LC-COMPACT » LC-COMPACT	variable	087A6623OM4	087A6620G657A1	087A6622G657A1
	LC-COMPACT PPB » LC-COMPACT PPB	variable	087A6737OM4	087A6738G657A1	087A6747G657A1
2.8 mm	LC-COMPACT » LC-COMPACT	variable	087A6601OM4	087A6600G657A1	087A6609G657A1
	LC-COMPACT PPB » LC-COMPACT PPB	variable	087A6753OM4	087A6754G657A1	087A6755G657A1
double jacket 2.8 / 5.0 mm	LC-COMPACT » LC-COMPACT	variable	087A6613OM4	087A6610G657A1	087A6612G657A1
	LC-COMPACT PPB » LC-COMPACT PPB	variable	087A6759OM4	087A6760G657A1	087A6761G657A1

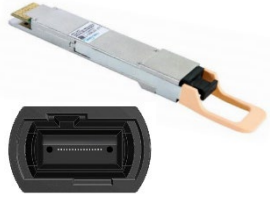
Migration of PreCONNECT® DUODECIM to 400GBASE-SR8:

MULTIMODE

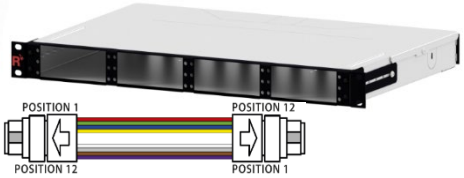
400GBASE-SR8
MPO Transceiver

OSFP

QSFP-DD

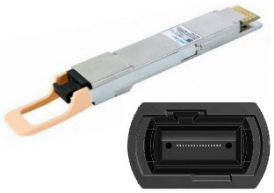


PreCONNECT®DUODECIM breakout trunk



PreCONNECT® SMAP-G2 HD
19“ panel system
4/4 width partition
equipped with 1/4
MTP® adapter part front plates

400GBASE-SR8
MPO Transceiver



PreCONNECT® SEDECIM
SR8 to 2x SR4 OCTO
migration-harness

PreCONNECT® SEDECIM
SR8 to 2x SR4 OCTO
migration-harness

Maximum channel length acc. to application and transceiver data sheet

PreCONNECT® SEDECIM, SR8 to 2x SR4 OCTO, migration-harness, part numbers:

- **076A0140OM4 with MTP16 MM 0° PC black boot for 400GBASE-SR8 Transceivers with 0° PC interface**
- **076A0185OM4 with MTP16 MM 8° APC white boot for 400GBASE-SR8 Transceivers with 8° APC interface**

Migration of PreCONNECT® DUODECIM to 400GBASE-SR8 port-breakout to 2 x 200GBASE-SR4:

MULTIMODE

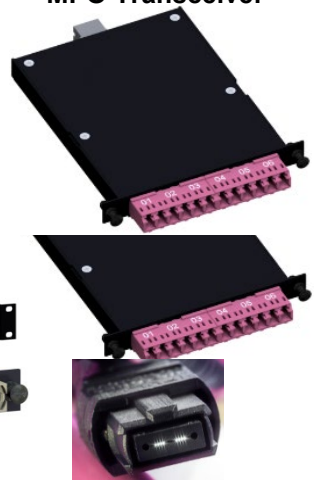
400GBASE-SR8 MPO Transceiver

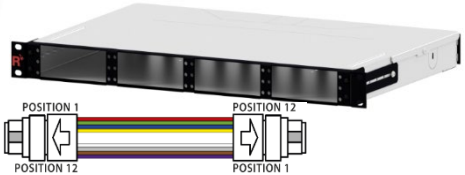
OSFP

QSFP-DD

PreCONNECT® DUODECIM breakout

200GBASE-SR4 MPO Transceiver





PreCONNECT® SMAP-G2 HD
19“ panel system
4/4 width partition
equipped with 1/4
MTP® adapter part front plates

PreCONNECT® SEDECIM SR8 to 2x SR4 OCTO migration-harness

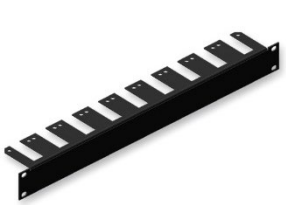
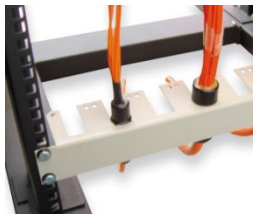
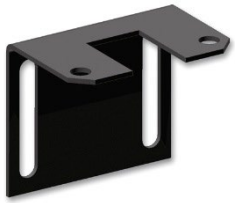
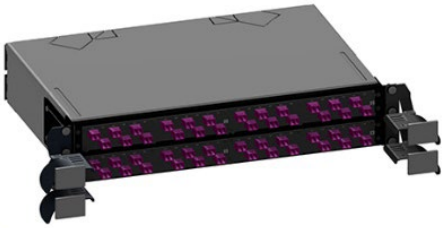
PreCONNECT® OCTO patchcord

Maximum channel length acc. to application and transceiver data sheet

PreCONNECT® SEDECIM, SR8 to 2x SR4 OCTO, migration-harness, part numbers:

- **076A0140OM4 with MTP16 MM 0° PC black boot for 400GBASE-SR8 Transceivers with 0° PC interface**
- **076A0185OM4 with MTP16 MM 8° APC white boot for 400GBASE-SR8 Transceivers with 8° APC interface**

Accessories:

Description	Part number	Pictures
19” 1 HU universal trunk cable divider holder For the universal installation of multiple trunk cable dividers within 19" racks.	RAL9005 black 099A0085	 
19” 1 HU single universal trunk cable divider holder For the universal installation of a single trunk cable dividers within 19" racks.	RAL9005 black 099A0065	 
For 19“ panel accessories see our product information 19“ panel accessories	    	

Patch Location Rack:

Applications:
- High density data center infrastructures
- For the construction of ultra high density data center patch locations

Properties:
- Innovative, restriction-free cable management system
- Rack pillars with integrated cable managers to prevent interference with cable routing
- The covers of the cable managers fold in both directions and are completely removable
- Individually selectable feedthroughs in the sides and rear walls of the large-volume cable channel for simple vertical and horizontal cable routing
- Professional routing of large cable volumes from the patchfields and storage of cable overlengths in the vertical cable managers
- Particularly suitable for fiber optic cables thanks to the use of cable clips (L-fingers) and finger slots:
  - The rounded L-fingers ensure that the cables are extremely well protected against bending and kinking even when subject to strain.
  - The L-fingers do not have any sharp edges and are extremely strong and resistant to breakage.
  - Because there is plenty of space for them in the large finger slots, the cables are neither squeezed nor kinked.
  - The L-fingers retain the cables in the finger slots whenever you need to work with the covers folded back or removed.
- Dimensions (H x L x W): 213 (46 HU) x 90 x 90 cm
- Material and color: Powder-coated steel, RAL 9005 (black)

Optional:
19” Intermediate rack for the construction of rack rows with uneven numbers of racks on request.

Delivery form:
- Factory-mounted on pallet (total height with pallet and packaging: 230 cm)
- Including adjustable feet for on-site installation

Accessories:
Wide range of accessories such as side walls, cable guides, excess cable storage for the top of the rack are available on request

More details in our
Product Information “ DC-PLR“

About Rosenberger OSI:

Since 1991, Rosenberger Optical Solutions & Infrastructure (Rosenberger OSI) has been a recognized expert for fiber-based connectivity, cabling solutions and infrastructure services in the areas of data centers, local area networks, mobile networks and industrial applications. As an integrated solution provider, we have high expertise in the development and operational excellence in the production of system solutions for communication networks. Our comprehensive services enable the secure and efficient operation of digital infrastructures. This combination, combined with our strong customer focus, makes us unique and a strong partner in the global market.

Rosenberger OSI has been part of the globally operating Rosenberger Group since 1998. The Rosenberger Group is a leading global provider of high-frequency, high-voltage and fiber optic connectivity solutions with headquarters in Germany. For further information, please visit: www.rosenberger.com/osi

Rosenberger

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Creation date: 2018-03-05
Valid since: 2022-10-06
Revision: 013