# Rosenberger

PreCONNECT®SMAP-G2 Smart Panel Generation 2 Ultra High Density (UHD) 19" panel system





Rosenberger OSI offers with PreCONNECT® SMAP-G2 UHD a highly modular and plastic-reduced 19" Smart Panel SMAP panel system for data center data cabling.

With a port density up to 96 LC-Duplex or 48 MTP® per height unit a very high utilization of the front surface is achieved. A service-friendly assembly of the PFP's or the MTP® module cassettes is possible without tools by quick fasteners. Also the proven PreCONNECT® square-interface enables a toolless fixing of the trunk cables.

Depending on the type of use and assembly of the PreCONNECT® SMAP-G2 UHD panels, a multitude of easily exchangeable back planes are available for cable interception. The PreCONNECT® SMAP-G2 UHD panel is depth-adjustable by 19" mounting brackets and can therefore be individually adapted to different rack conditions.

Author: Harald Jungbäck

# **Properties:**

- Port density: 96 LC-Duplex or 48 MTP® per height unit HU
- Consists of 19" 1 HU empty panels, in two different width partitions, 6/6 OCTO and SEDECIM, 4/4 DUODECIM
- Empty panels are to be equipped with 1/2 HU part front plates PFPs and MTP® module cassettes in 1/6 OCTO and SEDEDCIM and 1/4 DUODECIM width partitions
- PFPs and cassettes are toolless inserted from the front side and fixed with quick fasteners
- PFPs and cassettes can be pulled out to the front for maintenance
- Through its adjustable 19" mounting brackets the panel can be depth variable mounted

## **Applications:**

- Panel system for data center data cabling
- For all IT applications like Ethernet and Fibre Channel
- Appropriate for Spine-Leaf architectures, up to 16 trunks coming from Leaf Switches can be accommodated within a 1 HU SMAP-G2 UHD distribution panel next to the Spine-Switch

## Your benefits at a glance:

- High modularity to configure individual cabling structures
- Fast and easy handling during installation, one-man installation possible
- Low complexity, focused on the functional needs
- Simple and low-cost migration to other applications, e.g. from duplex technology to MTP® based Parallel Optics
- Fiber and copper data cabling can be installed together within one panel
- Low fire load through minimized use of plastic

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

Is the Ultra High Density (UHD) variant of the generation 2 of our since years proved and tested, highly modular and plastics reduced 19" Smart Panel SMAP system for data center data cabling.

Port density: 96 LC-Duplex or 48 MTP® ports per height unit HU

PreCONNECT® SMAP-G2 UHD consists of 19" 1 HU empty panels, in two different width partitions, 6/6 OCTO and SEDECIM, 4/4 DUODECIM.

Empty panels are to be equipped with 1/2 HU part front plates PFPs and MTP® module cassettes in 1/6 OCTO and SEDEDCIM and 1/4 DUODECIM width partitions (1). The module cassettes are toolless inserted from the front side and fixed with quick fasteners By this design they can be pulled out to the front for maintenance.

The modular panel back planes (2) offering highest flexibility to configure cable entries application specific easy and cost saving. See other panel back planes in our product information SMAP-G2 SD.

Through its adjustable 19" mounting brackets (3) the panel can be depth variable mounted.

In SMAP-G2 UHD panels with part front plates with LC adapters, PreCONNECT® STANDARD trunks with LC-COMPACT Push-Pull-Boot (LCC-PPB) connectors must be applied, as described in the product information PreCONNECT® STANDARD.

LC-COMPACT Push-Pull-Boot (LCC-PPB) patchcords with cable diameter 2.0 mm or thinner must be used with this panel system.







	Part numbers Duplex patchcord cable type round I-V(ZN)H FRNC-LSZH						
Cable diameter		Connectors	Lenght	OM4	SM PC 0°	SM APC 8°	
2	2.0 mm	LC-Compact PPB » LC-Compact PPB	variable	087A6737OM4	087A6738G657A1	on request	

### Material and color:

■ Panel body: aluminum silver

■ 19" mounting brackets and front: steel powder coated RAL9005 black

### Weight:

One of the lowest weight panels of its kind: 1 HU empty distribution panel 1.6 kg

### **Dimensions:**

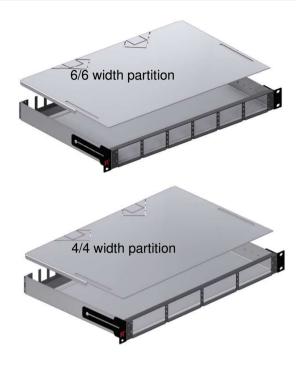
■ Width: 19" ■ Height: 1 HU

■ Depth: 200 mm and 300 mm deliverable. We recommend 300 mm as shown here, because the space to accommodate trunk cable dividers and connector legs is uncomfortable narrow within 200 mm deep panels.

### Part numbers:

PreCONNECT® SMAP-G2 UHD 19" 1 HU empty distribution panels, RAL9005 black, back plane with 16 PreCONNECT® square-interfaces::

1 HU, 6/6 width partition, depth 300 mm: 171H0012
 1 HU, 4/4 width partition, depth 300 mm: 171H0011



# SMAP-G2 UHD 1/2 HU 1/6 part front plates:

Fitting into SMAP-G2 UHD empty panels with 6/6 OCTO and SEDECIM width partition. The PFPs are toolless inserted from the front side and fixed with quick fasteners. By this design they can be pulled out to the front for maintenance.

No numbering at part front plates PFP or adapters, because they are not readable at this UHD port density. Port addressing via port address field within optional patchcord manager possible, as shown behind in this document.

Material and colour: steel powder coated RAL9005 black

Adapter type			for fil	ber type	e			
Number of channels/ports	SM PC 0°	SM APC 8°	OM4	MM grey	MTP® 16 MM 8° APC white			
Number of fibers	blue	green	violet	for OCTO	for SEDECIM			
Blind PFP	170H3002							
LC-Duplex / 8ch / 16F	170H6100	170H6101	170H6102OM4					
MTP® / 4 ports		type A "opposed key" 170H6103		type B "aligned key" 170H6104TB	type A "opposed key" 170H6105			

### 1/2 HU 1/6 PFP 8 LC-Duplex



### 1/2 HU 1/6 PFP 4 MTP®



# 1/2 HU 1/6 blind PFP



# SMAP-G2 UHD panels factory assembled with 1/2 HU 1/6 part front plates:

Part n	Part numbers RAL9005 black						
HU	Number of PFP and type	Number of LC-Duplex ports	SM PC 0° blue	OM4 violet			
1	12 x 1/2 HU 1/6 8 LCD	96	171H5000	171H5001OM4			
HU	Number of PFP and type	Number of MTP® ports	SM APC 8° green type A "opposed key"	MM grey type B "aligned key" for OCTO	MTP <sup>®</sup> 16 MM 8° APC white type A "opposed key" for SEDECIM		
1	12 x 1/2 HU 1/6 4 MTP®	48	171H5002	171H5003TB	171H5004		
Other HU and configuration on request.							

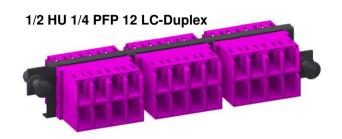
# SMAP-G2 UHD 1/2 HU 1/4 part front plates:

Fitting into SMAP-G2 UHD empty panels with 4/4 DUODECIM width partition. The PFPs are toolless inserted from the front side and fixed with quick fasteners. By this design they can be pulled out to the front for maintenance.

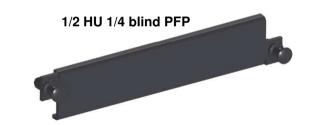
No numbering at part front plates PFP or adapters, because they are not readable at this UHD port density. Port addressing via port address field within optional patchcord manager possible, as shown behind in this document.

Material and colour: steel powder coated RAL9005 black

Part numbers RAL9005 black							
Adapter type		for fi	ber type	er type			
Number of channels/ports	SM PC 0°	SM APC 8°	OM4	MM			
Number of fibers	blue	green	violet	grey			
Blind PFP	170H3001						
LC-Duplex / 12ch / 24F	170H6000	170H6001	170H6002OM4				
MTP® / 6 ports		type A "opposed key" 170H6003		type B "aligned key" 170H6004TB			
With other adapter types on request.							







# SMAP-G2 UHD panels factory assembled with 1/2 HU 1/4 part front plates:

Part numbers RAL9005 black					
HU	Number of PFP and type	Number of LC-Duplex ports	SM PC 0° blue	OM4 violet	
1	8 x 1/2 HU 1/4 12 LCD	96	171H4000	171H4001OM4	
HU	Number of PFP and type	Number of MTP® ports	SM APC 8° green type A "opposed key"	MM grey type B "aligned key"	
1	8 x 1/2 HU 1/4 6 MTP®	48	171H4002	171H4003TB	
Other HU and configuration on request.					



# SAMP-G2 UHD 16 fiber MTP® module cassettes fitting for PreCONNECT® OCTO and SEDECIM trunks:

### **Properties:**

- For Port-Breakout of PreCONNECT® OCTO and SEDECIM trunks with MTP® connectors, as described in the product information PreCONNECT® OCTO and SEDECIM.
- Fitting in SMAP-G2 UHD panel with 6/6 width partition
- Height: 1/2 HU
  Width: 1/6
  Depth: 115 mm
  Polarity: Rx to Tx
- 2x MTP® female port 4+4F OCTO or 1x 16F SEDECIM at the rear side:
  - OM4: MTP® adapter type B "aligned key" grey
  - SM: MTP® adapter type A "opposed key" green
  - SEDECIM OM4: MTP® 16 MM APC adapter type A "opposed key" white
- 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 and type of	Number of					
MTP® female ports	LC-Duplex ports	OM4	SM LC-PC 0°	SM LC-APC 8°		
at rear side	at front side					
2 x 4+4F OCTO	2 OCTO groups of 4 = 8	170H4100OM4	170H4103	on request		
1 x 16F SEDECIM	1 SEDECIM groups of 8 = 8	170H4101OM4				

# SMAP-G2 UHD panels factory assembled with 1/2 HU 1/6 MTP® module cassettes:

Part	Part numbers RAL9005 black						
HU	Number of cassettes and type	Number of LC-Duplex ports	OM4	SM LC-PC 0°			
1	12 x 1/2 HU 1/6 8 LCD / 2x 4+4F OCTO	96	171H5200OM4	171H5201			
1	12 x 1/2 HU 1/6 8 LCD / 1x 16F SEDECIM	96	171H5202OM4	171H5203			
Othe	Other HU and configuration on request.						

# SAMP-G2 UHD 24 fiber MTP® module cassettes fitting for PreCONNECT® OCTO and DUODECIM trunks:

## **Properties:**

- For Port-Breakout of PreCONNECT® OCTO and DUODECIM trunks with MTP® connectors, as described in the product information PreCONNECT® OCTO and DUODECIM
- 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
- 3x MTP® female port 4+4F OCTO or 2x 12F DUODECIM at the rear side:
  - OM4: MTP® adapter type B "aligned key" grey
  - SM: MTP® adapter type A "opposed key" green
- 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 and type of MTP® female ports at rear side	Number of LC-Duplex ports at front side	OM4	SM LC-PC 0°	SM LC-APC 8°		
3 x 4+4F OCTO	3 OCTO groups of 4 = 12	170H4000OM4	170H4003	on request		
2 x 12F DUODECIM	2 DUODECIM groups of 6 = 12	170H4001OM4	170H4004	on request		

# SMAP-G2 UHD panels factory assembled with 1/2 HU 1/4 MTP® module cassettes:

Part	Part numbers RAL9005 black					
HU	Number of cassettes and type	Number of LC-Duplex ports	OM4	SM LC-PC 0°		
1	8 x 1/2 HU 1/4 12 LCD / 2x 4+4F OCTO	96	171H4200OM4	171H4201		
1	8 x 1/2 HU 1/4 12 LCD / 2x 12F DUODECIM	96	171H4202OM4	171H4203		
Othe	Other HU and configuration on request.					

# SAMP-G2 UHD 6 Port RJ45 Cat. 6<sub>A</sub> module for 4/4 slot panel fitting for PreCONNECT® COPPER HIGH DENSITY trunks:

### **Properties:**

- To carry PreCONNECT® COPPER HIGH DENSITY trunks assembled with module cubes, as described in the product information PreCONNECT® COPPER HIGH DENSITY
- 6 port RJ45 Cat. 6<sub>A</sub>
- Fitting in SMAP-G2 UHD panel with 4/4 width partition
- Height: 1/2 HUWidth: 1/4
- Toolless placement of the module cassettes into the panel from the front side, fixing with guick fasteners
- Inclusive 2 m long grounding cable to connect the PFP, grounding cable is to be routed out of the panel through its back plane and attached at the grounding point of the rack
- Material and colour: steel powder coated RAL9005 black

Part number RAL9005 black: 170H5000

### PreCONNECT® COPPER HIGH DENSITY trunk





**Fixing of PreCONNECT® COPPER trunks** at panel back plane using PreCONNECT® universal cable fixture. For cable diameters 6 to 18 mm.

Part number set incl. two cable ties: 111A0650



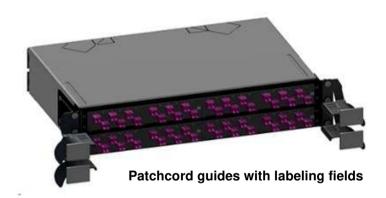






# For 19" panel accessories see our product information 19" panel accessories:





For other panel back planes see our product information SMAP-G2 SD:





## Patchcord manager

- height units saving (0 HU) mountable in front of 19" panels
- with foldaway front cover
- with optional labelling and port address fields



### **About Rosenberger OSI:**

Since 1991, Rosenberger Optical Solutions & Infrastructure (Rosenberger OSI) has been an expert in innovative fiber optic cabling infrastructure and service solutions for Data Centers, Local Networks, Telecom and Industrial.

The products and services can be found wherever largest amounts of data have to be transferred quickly and securely. In addition to the development and production of a broad portfolio of fiber optic and copper cabling systems, Rosenberger OSI also offers a variety of services such as planning, installation and maintenance of cabling infrastructure. Rosenberger OSI has been a part of the globally operating Rosenberger Group since 1998, a worldwide leading provider of high-frequency-, high-voltage-, and fiber-optic-connection solutions headquartered in Germany.

For further information, please visit: www.rosenberger.com/osi

# Rosenberger

### Rosenberger-OSI GmbH & Co. OHG

Optical Solutions & Infrastructure | Endorferstr. 6 | 86167 Augsburg | Telefon: +49 821 24924-0 info-osi@rosenberger.com | www.rosenberger.com/osi

Rosenberger<sup>®</sup> is a registered trademark of Rosenberger Hochfrequenztechnik GmbH & Co. KG. All rights reserved. © Rosenberger 2017

For technical reasons, we reserve us the right to make any deviations from the illustrations in the product information. Transfer to third party only by authority of Rosenberger-OSI GmbH & Co. OHG- All rights reserve.

Creation date: 2019-09-17 Valid since: 2020-06-22

Revision: 003