# Rosenberger

# PreCONNECT<sup>®</sup> SMAP-G2 Smart Panel Generation 2 High Denstiy (HD) 19" panel system

PRODUCT INFORMATION



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

With a port density up to 72 LC-Duplex or MTP<sup>®</sup> per height unit a very high utilization of the front surface is achieved. A service-friendly assembly of the PFP's or the MTP<sup>®</sup> module cassettes is possible without tools by quick fasteners. Also the proven PreCONNECT<sup>®</sup> square-interface enables a toolless fixing of the trunk cables.

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

#### **Properties:**

- Port density: 72 LC-Duplex or MTP<sup>®</sup> ports per height unit HU
- Consists of 1 HU and 2 HU empty panels in three different width partitions 6/6 OCTO, 4/4 DUODECIM and 3/3 SEDECIM
- Empty panels are to be equipped with 1/3 HU part front plates PFPs and MTP<sup>®</sup> module cassettes in 1/6 OCTO, 1/4 DUODECIM and 1/3 SEDECIM 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

#### **Applications:**

- Panel system for data center data cabling
- For all IT applications like Ethernet and Fibre Channel
- Appropriate for Spine-Leaf architectures, by default 12, optional up to 16 trunks coming from Leaf Switches can be accommodated per HU within SMAP-G2 distribution panels 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<sup>®</sup> based Parallel Optics
- Fiber and copper data cabling can be installed together within one panel
- Low fire load through minimized use of plastic

# PreCONNECT<sup>®</sup> SMAP-G2 High Density (HD) 19" panel system:

Is the High Density (HD) 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: 72 LC-Duplex or MTP<sup>®</sup> ports per height unit HU

PreCONNECT<sup>®</sup> SMAP-G2 HD consists of 1 HU and 2 HU empty panels in three different width partitions 6/6 OCTO, 4/4 DUODECIM and 3/3 SEDECIM.

The Empty panels are to be equipped with 1/3 HU part front plates PFPs and  $\mathsf{MTP}^{\$}$  module cassettes in

1/6 OCTO, 1/4 DUODECIM and 1/3 SEDECIM width partitions (1). The PFPs and 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.

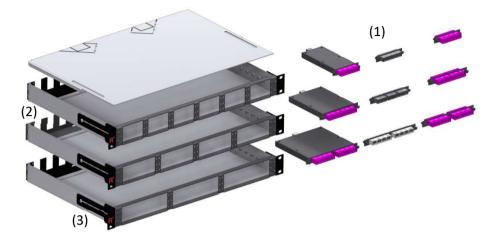
Through its adjustable 19" mounting brackets (3) the panel can be depth variable mounted.

We recommend to apply PreCONNECT<sup>®</sup> STANDARD trunks with LC-COMPACT Push-Pull-Boot (LCC-PPB) connectors in SMAP-G2 HD panels with part front plates with LC adapters, as described in the product information PreCONNECT<sup>®</sup> STANDARD.

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

Patchcord part numbers

Duplex Patchcord cable type round I-V(ZN)H FRNC-LSZH							
Cable diame	Cable diameter Connectors Lenght OM4 SM PC 0° SM APC 8°						
2.0 mm	2.0 mm LC-Compact PPB » LC-Compact PPB variable 087A67370M4 087A6738G657A1 on request						







#### Material and colour:

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

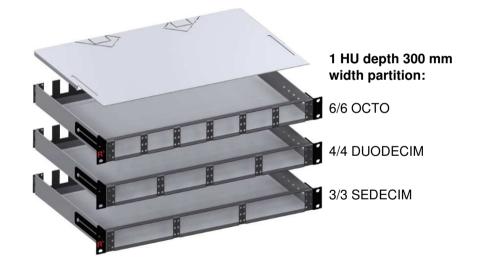
#### **Dimensions:**

- Width: 19"
- Height: 1 HU and 2 HU
- Depth: 200 mm and 300 mm. 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:

SMAP-G2 UHD 19"empty distribution panels, RAL9005 black, backplane as shown here with 12 PreCONNECT<sup>®</sup> square interfaces:

1 HU, 6/6 OCTO width partition, depth 300 mm	171H0013
1 HU, 4/4 DUODECIM width partition, depth 300 mm	171H0010
1 HU, 4/4 DUODECIM width partition, depth 200 mm	171H0001
1 HU, 3/3 SEDECIM width partition, depth 300 mm	171H0015
2 HU, 4/4 DUODECIM width partition, depth 300 mm	172H0001



## SMAP-G2 HD 1/3 HU 1/6 part front plates with matrix numbering:

Fitting into SMAP-G2 HD empty panels with 6/6 OCTO 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.

The numbering of the part front plates PFP is a modular numerical matrix. The LC-Duplex and MTP<sup>®</sup> ports within the PFPs have a fixed 1 to 4 labeling.

The PFPs can be numbered with their positions they have within the panels with the exchangeable numbering clips the panels are shipped with.

Material and colour: steel powder coated RAL9005 black

Part numbers RAL9005 black					
Adapter type		for	fiber type		
Number of channels/ports	SM PC 0°	SM APC 8°	OM4	MM	
Number of fibers	blue	green	violet	grey	
Blind PFP		1	70H0002		
LC-Duplex / 4ch / 8F	170H2100	170H2101	170H2102OM4		
MTP <sup>®</sup> / 4 Port		type A "opposed key" 170H2103		type B "aligned key" 170H2104TB	
With other adapter types on request.					

# 1/3 HU 1/6 4 LC-Duplex







### SMAP-G2 HD panels factory assembled with 1/3 HU 1/6 part front plates with matrix numbering:

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 1/3 HU 1/6 4 LCD	72	171H1000	171H1001OM4		
		Number of MTP <sup>®</sup> Ports	SM APC 8° green	MM grey		
HU	Number of PFP and type	type A "opposed key"	type B "aligned key"			
1      12 x 1/3 HU 1/6 4 MTP <sup>®</sup> 72      171H1002      171H1003TB						
Other	Other HU and configuration on request.					



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

Fitting into SMAP-G2 HD 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.

The numbering of the part front plates PFP is a modular numerical matrix. The LC-Duplex and MTP<sup>®</sup> ports within the PFPs have a fixed 1 to 6 labeling.

SM PC 0°

blue

170H2000

The PFPs can be numbered with their positions they have within the panels with the exchangeable numbering clips the panels are shipped with.

SM APC 8°

green

Material and colour: steel powder coated RAL9005 black

Part numbers RAL9005 black Adapter type

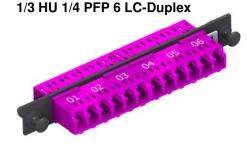
Number of channels/ports

Number of fibers

Blind PFP LC-Duplex / 6ch / 12F

MTP<sup>®</sup> / 6 ports

With other adapter types on request.





green	violet	grey	
1	70H0001		
170H2001	170H2002OM4		1/3 HU 1/4 blind PFP
type A "opposed key" 170H2023		type B "aligned key" 170H2013TB	i/o no i/4 bind i i i
			Sere

MM

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

for fiber type

OM4

Part numbers RAL9005 black					
HU	Number of PFP and type	Number of LC-Duplex ports	SM PC 0° blue	OM4 violet	
1	1 12 x 1/3 HU 1/4 6 LCD 72		171H3001	171H3000OM4	
2	24 x 1/3 HU 1/4 6 LCD	144	172H3003	172H3002OM4	
HU Number of PFP and type Number of MTP <sup>®</sup> ports		SM APC 8° green type A "opposed key"	MM grey type B "aligned key"		
1      12 x 1/3 HU 1/4 6 MTP <sup>®</sup> 72      171H3002      171H3003OM4					
Other HU and configuration on request.					



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

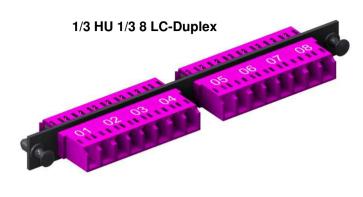
Fitting into SMAP-G2 HD empty panels with 3/3 SEDECIM width partition. The PFPs are toolless inserted from the front side and fixed with quick fasteners. By this design they can be pulled out to the front for maintenance.

The numbering of the part front plates PFP is a modular numerical matrix. The LC-Duplex and MTP<sup>®</sup> ports within the PFPs have a fixed 1 to 8 labeling.

The PFPs can be numbered with their positions they have within the panels with the exchangeable numbering clips the panels are shipped with.

Material and colour: steel powder coated RAL9005 black

Part numbers RAL9005 black						
Adapter type		for fiber type				
Number of channels/ports	SM PC 0° SM APC 8° OM4 MM					
Number of fibers	blue	green	violet	white		
Blind-PFP		170	)H0003			
LC-Duplex / 8ch / 16F	170H2202	170H2203	170H2200OM4			
MTP <sup>®</sup> 16 MM 8° APC						
type A "opposed key" 170H220 <sup>-</sup>						
8 ports						
With other adapter types on request.						







## SMAP-G2 HD panels factory assembled with 1/3 HU 1/3 part front plates with matrix numbering:

HU	Number of PFP and type	Number of LC-Duplex ports	OM4 violet			
1	9 x 1/3 HU 1/3 8 LCD	72	171H2000OM4			
HU	Number of PFP and type	Number of MTP <sup>®</sup> ports	MM white			
1	9 x 1/3HU 1/3 8 MTP <sup>®</sup> 16 MM 8° APC	72	171H2001			
	12	171112001				
Other	Other HU and configuration on request.					



# SMAP-G2 HD 8 fiber MTP<sup>®</sup> module cassettes fitting for PreCONNECT<sup>®</sup> OCTO Trunks:

#### **Properties:**

- For Port-Breakout of PreCONNECT® OCTO trunks with MTP® connectors, as described in the product information PreCONNECT® OCTO
- Fitting in SMAP-G2 HD panel with 6/6 OCTO width partition
- Height: 1/3 HU
- Width: 1/4
- Depth: 115 mm
- Polarity: Rx to Tx
- 1x MTP<sup>®</sup> female port 4+4F OCTO at the rear side:
  OM4: MTP<sup>®</sup> adapter type B "aligned key" grey
  SM: MTP<sup>®</sup> 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 of 4+4F OCTO MTP <sup>®</sup> female ports at rear side	Number of LC-Duplex ports at front side	OM4	SM LC-PC 0°	SM LC-APC 8°	
1	1 OCTO group of 4 = 4	170H1100OM4	170H1101	on request	

## SMAP-G2 HD panels factory assembled with 1/3 HU 1/6 MTP<sup>®</sup> module cassettes 1 x OCTO:

Part	Part numbers RAL9005 black						
HU	HU Number of cassettes and type Number of LC-Duplex ports OM4 SM LC-PC 0°						
1	18 x 1/3 HU 1/6 4 LCD 72 171H1200OM4 171H1201						
Othe	Other HU and configuration on request.						





# SMAP-G2 HD 12 fiber MTP<sup>®</sup> module cassettes fitting for PreCONNECT<sup>®</sup> DUODECIM trunks:

#### **Properties:**

- For Port-Breakout of PreCONNECT® DUODECIM trunks with MTP® connectors, as described in the product information PreCONNECT® DUODECIM
- Fitting in SMAP-G2 HD panel with 4/4 DUODECIM width partition
- Height: 1/3 HU
- Width: 1/4
- Depth: 115 mm
- Polarity: Rx to Tx
- 1x MTP<sup>®</sup> female port 12F DUODECIM at the rear side:
  OM4: MTP<sup>®</sup> adapter type B "aligned key" grey
  SM: MTP<sup>®</sup> 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 of 12F DUODECIM MTP <sup>®</sup> 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	

### SMAP-G2 HD panels factory assembled with 1/3 HU 1/4 MTP<sup>®</sup> module cassettes 1x DUODECIM:

Part	Part numbers RAL9005 black						
HU	HU Number of cassettes and type Number of LC-Duplex ports OM4 SM LC-PC 0°						
1	12 x 1/3 HU 1/4 6 LCD	72	171H3200OM4	171H3201			
Othe	Other HU and configuration on request.						





# SMAP-G2 HD 16 fiber MTP<sup>®</sup> module cassettes fitting for PreCONNECT<sup>®</sup> SEDECIM trunks

#### **Properties:**

- For Port-Breakout of PreCONNECT® SEDECIM trunks with MTP® connectors, as described in the product information PreCONNECT® SEDECIM
- Fitting in SMAP-G2 HD panel with 3/3 SEDECIM width partition
- Height: 1/3 HU
- Width: 1/3
- Depth: 115 mm
- Polarity: Rx to Tx
- 1 port SEDECIM MTP® 16 MM 8° APC, female, type A "opposed key", white at the rear side
- 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 steel powder coated RAL9005 black

Part numbers RAL9005 black			
Number of	Number of		
16F SEDECIM MTP <sup>®</sup> female ports	LC-Duplex ports	OM4	
at rear side	at front side		
1	1 SEDECIM group = 8	170H1200OM4	

## SMAP-G2 HD panels factory assembled with 1/3 HU 1/3 MTP<sup>®</sup> module cassettes 1 x SEDECIM:

Part numbers RAL9005 black					
HU	Number of cassettes and type	Number of LC-Duplex ports	OM4		
1	9 x 1/3 HU 1/3 8 LCD	72	171H2200OM4		
Othe	Other HU and configuration on request.				





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# SMAP-G2 HD 6 Port RJ45 Keystone part front plate fitting for PreCONNECT<sup>®</sup> COPPER trunks with RJ45 Keystone Jacks:

#### **Properties:**

- To carry PreCONNECT<sup>®</sup> COPPER and COPPER ToR-G2 trunks assembled with RJ45 Keystone Jacks, as described in the product information PreCONNECT<sup>®</sup> COPPER and COPPER ToR-G2
- Fitting in SMAP-G2 HD panel with 4/4 DUODECIM width partition
- For 6 RJ45 Keystone Jacks
- Height: 1 HU
- Width: 1/4
- Toolless placement of the module cassettes into the panel from the front side, fixing with quick fasteners
- Inclusive 2m 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 numbers RAL9005 black: 170H7000

## PreCONNECT® COPPER and COPPER ToR-G2 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



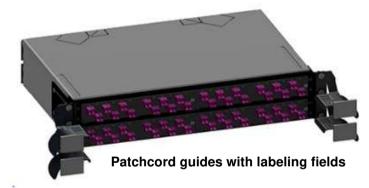






## For 19" panel accessories see our product information 19" panel accessories:





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

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