



NETWORK CUBE

> DWDM-MUX-8+UG Unit

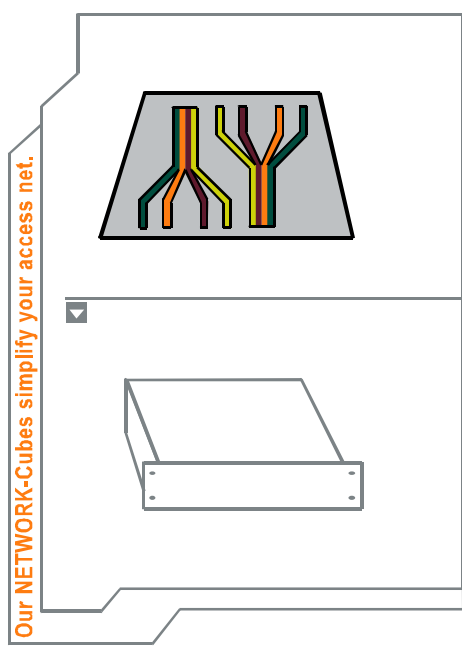
C-2468_Rev.A

Product Description

- Passive WDM unit for 19" rack type installation (1HU).
- The unit includes two pieces of 8-channel DWDM 100GHz multiplexers with upgrade channel (one mux, one demux).
- DWDM multiplexers to multiplex and de-multiplex 8 DWDM channels in the C band. The DWDM channels to be chosen via channel code out of 5 clusters of 8 consecutive channels.
- The upgrade channels to pass all DWDM channels other than the ones of the chosen DWDM cluster less the two adjacent channels to that cluster.
- The DWDM multiplexers are compliant with the ITU G.694.1 standard and Telcordia GR1221 (former Bellcore) standard and are designed to meet NEBS level 3.
- The System interoperates with any router, switch, DSLAM, SFP and GBIC, which supports the DWDM ITU G.694.1 standard.

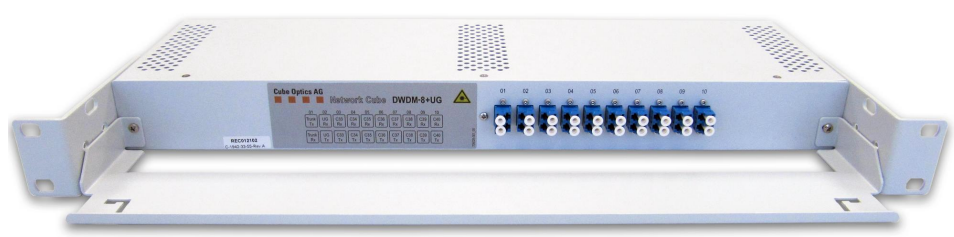
- Product Description: NETWORK CUBE DWDM-MUX-8+UG Unit
- Product Code: C-2468
- Channel Code: -ZZ (choose from table below)
- Connector Code: -XY (choose from table below)
- Revision Level: -Rev.A

Example Order Code: C-2468-27-15-Rev.A for a DWDM unit (channels C27 – C34) with SC/PC on all common / trunk ports and LC/PC on all WDM and upgrade ports.



(ZZ) Channels	Code
C18 - C25	18
C27 - C34	27
C36 - C43	36
C45 - C52	45
C54 - C60	54

(X) Common ports	(Y) CWDM / UG ports	Code
SC/PC		1
FC/PC		2
SC/APC		3
FC/APC		4
LC/PC		5
MU/PC		6
E2000		7
E2000/HRL		8
ST/PC		9
other		tbd



Revision History

No.	Description	Date	Created by
A	Initial release	26.05.11	ChristianZank

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General Specifications

Operating Temperature	+0°C to +70°C	
Storage Temperature	-40°C to +80°C	
Max. optical Power	< 300 mW	
Fiber Type	SMF-28 compatible	∅ 9 / 125 / 250µm
Optical Adapters All ports	to be selected by customer via order code	

Optical Performance

Number of channels	9	
Operating Channel		
DWDM cluster # 1	C18 to C25	
DWDM cluster # 2	C27 to C34	
DWDM cluster # 3	C36 to C43	
DWDM cluster # 4	C45 to C52	
DWDM cluster # 5	C54 to C61	
UG	remaining channels less the adjacent ones to the chosen cluster	
Channel Spacing	100 GHz	
Insertion Loss	max. ¹	typical ³
DWDM	< 3.8 dB	2.9 dB
UG	< 1.0 dB	0.8 dB
Link Loss	< 5.5 dB	
Isolation ²		
DWDM adjacent channels	> 25 dB	
DWDM non-adjacent channels	> 40 dB	
Optical Return Loss	> 45 dB (for the component, also depends on connectors)	
Directivity	> 60 dB	
Polarization Dependent Loss	< 0.3 dB	

Notes:

1. Max. insertion loss over channel bandwidth, valid over full operating temperature range and all states of polarization including optical connectors. The typical connector loss is 0.4 dB for a pair of connectors
2. For demux only.
3. Typical insertion loss is defined as typical value over channel bandwidth, full operating temperature range and all states of polarization including optical connectors. Typical values have been derived with statistical methods from actual production data to reflect the majority of cases.

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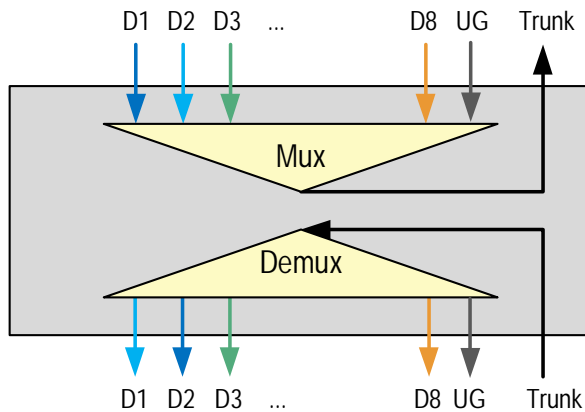
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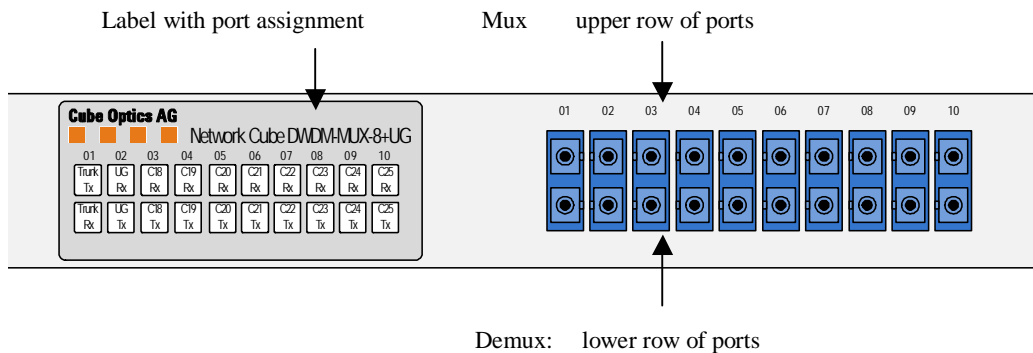
Package Dimensions and Front Plate design

Logical setup:



Connection Scheme:

- The channel ports are marked with "01", "02",... "10".
- Actual port assignment displayed on the label at the left side of front panel.
- The channels are labeled as "C18", "C19",... "C25" according to the ITU-T 100 GHz DWDM grid and the chosen cluster.
- Common/line ports are labeled as "Trunk"
- All ports are equipped with adapters as defined by customer via order code.



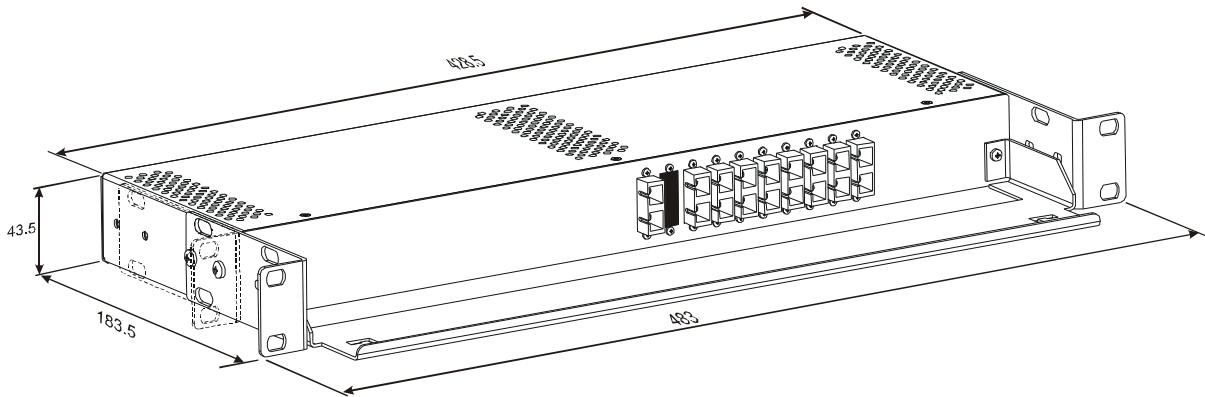
Please, note that the actual layout depends on the chosen connector type as well as other factors. However, the principal scheme stays the same.

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Layout and dimensions

- Width: 483 mm (19"), 532 mm (ETSI)
- Height: 43.5 mm (1.732") / 1HU
- Depth: 183.5 / 125 mm
- Finishing: powder coating
- Color: light gray (color code RAL7035)
- All fonts and labels are printed in black



Please, note that the displayed drawing only shows the dimensions and not the specific configuration of the module!

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