HUBER+SUHNER Cube Optics

NETWORK CUBE
DWDM-MUX-8+1310 Unit

C-2401_Rev.A

Product Description

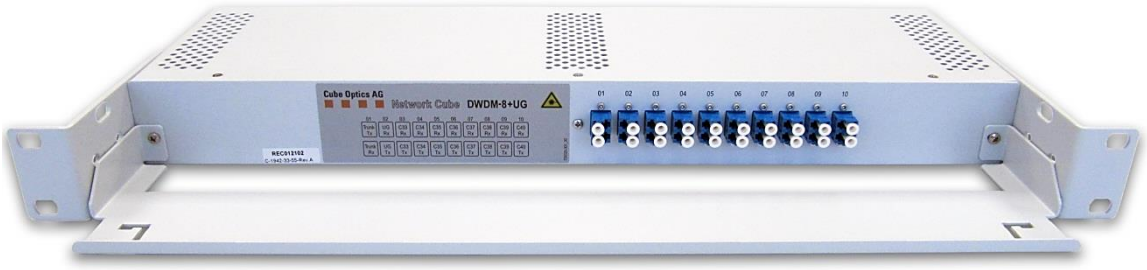
- Passive WDM unit for 19” rack type installation [1] (1HU).
- The unit contains two pieces of 8-channel DWDM 100GHz multiplexers with additional wideband (WWDM)1310nm channel (one mux, one demux).
- DWDM multiplexers to multiplex and de-multiplex 8 DWDM channels in the C band. Channels to be chosen out of 5 channel clusters via order code. See channel code below.
- WWDM multiplexer to multiplex and de-multiplex a 1310nm wideband channel.
- 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+1310 Unit
- Product Code: C-2401
- Channel Code : -ZZ (choose from table [2])
- Connector Code: -XY (choose from table)
- Revision Level: -Rev.A

(ZZ) Channels	Code
C18 - C25	18
C27 - C34	27
C36 - C43	36
C45 - C52	45
C54 - C61	54

(X) Common ports (Y) DWDM / 1310 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

Example Order Code: **C-2401-27-15-Rev.A** for a DWDM unit (channels C27 – C34) with SC/PC on all common / trunk ports and LC/PC on all WDM ports.



Revision History

No	Description	Date	Created by
A	Initial release	14.06.11	Christian Zank

[1] Adapters for ETSI cabinets are enclosed. Adapters for 21” cabinets upon request.
[2] Other channels upon request.

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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 channel clusters	C18 to C25 (channel code 18)	
	C27 to C34 (channel code 27)	
	C36 to C43 (channel code 36)	
	C45 to C52 (channel code 45)	
	C54 to C61 (channel code 54)	
WWDM channel	1310 nm	
Channel Spacing		
DWDM channels	100 GHz	
WWDM channel	1260 - 1360 nm	
Insertion Loss	**max** [3]	**typical** [4]
DWDM channels	< 4.1 dB	2.7 dB
WWDM channel	< 1.2 dB	0.9 dB
Link Loss	**max** [5]	**typical** [6]
DWDM channels	< 5.2 dB	4.2 dB
Isolation [7]		
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	

[3] 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 max. 0.4 dB for a pair of connectors
[4] 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.
[5] 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 max. 0.4 dB for a pair of connectors
[6] 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.
[7] For demux only.

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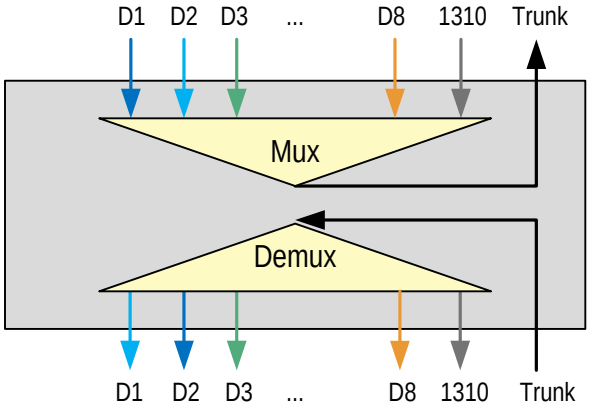
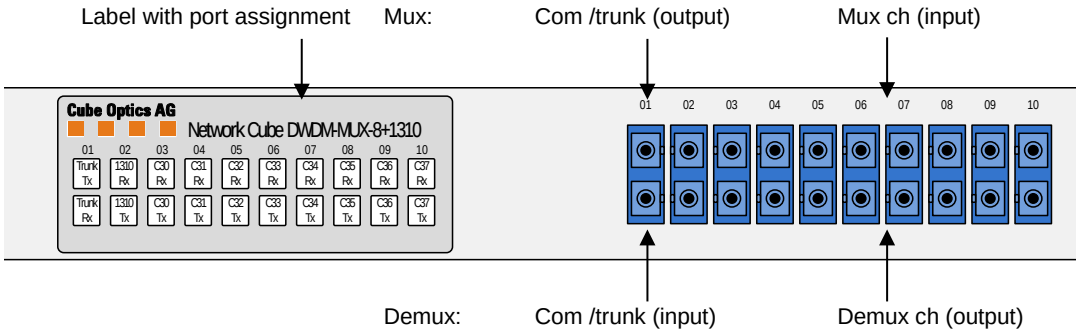
Package Dimensions and Front Plate design

Logical setup



Connection Scheme

- The ports are marked with “01”, “02”,…“10”.
- Actual port assignment displayed on the label at the left side of front panel.
- The DWDM channels are marked with “C27”, “C28”,…“C34”according to the ITU-T 100 GHz DWDM grid.
- The WWDM channel is marked with “1310”.
- Common (line) ports are marked with “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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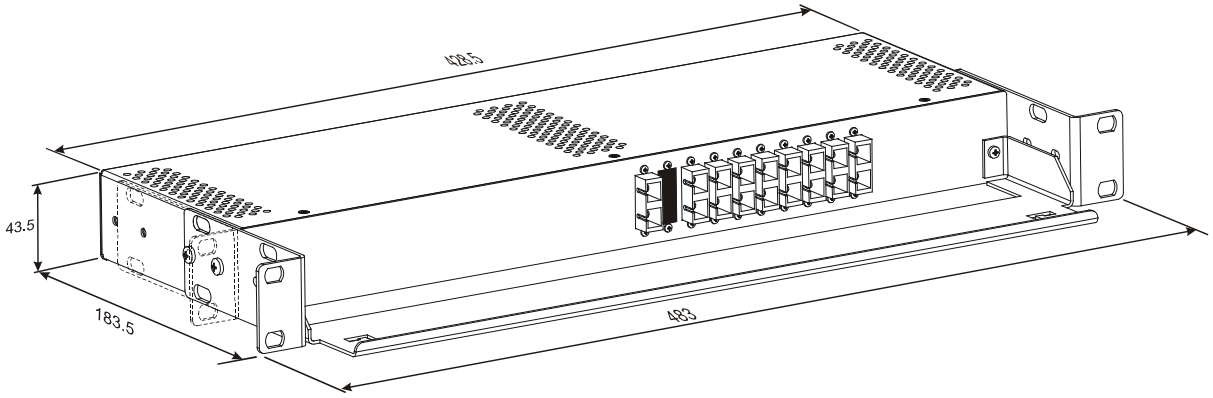
Layout and dimensions

- Width: 483 mm (19”), 532 mm (ETSI)
- Height: 43.5 mm (1.732”) / 1HU
- Depth: 183.5 / 125 mm
- The color of the module is 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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