NETWORK Cubes

NETWORK CUBE
DWDM-MUX-48 Unit

C-2533_Rev.B

Product Description

- Passive WDM unit for 19” rack type installation (1HU).
- The unit contains two pieces of 48-channel DWDM 100GHz multiplexers (one mux, one demux).
- DWDM multiplexers to multiplex and de-multiplex 48 DWDM channels out of the C band or H-band.
- The multiplexers are based on athermal AWG technology with wideband passbands.
- 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-48 Unit
- Product Code: C-2533
- Channel Code: -Z (choose from table)
- Revision Level: -Rev.B

(Z) Channels	Code
Channels C14-C61	1
Channels H13-H60	2

Example Order Code: **C-2533-1-Rev.B** for a DWDM unit with channels C14-C61.

Revision History

No	Description	Date	Created by
A	Initial release	09.03.12	Carsten Marheine
B	Improved insertion loss and H-band channels	06.06.12	Carsten Marheine

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General Specifications

Operating Temperature	-5°C to +65°C
Storage Temperature	-40°C to +80°C
Max. optical Power	< 250 mW
Fiber Type	SMF-28 compatible ∅ 9 / 125 / 250µm
Optical Adapters	
All ports	LC/UPC

Optical Performance

Number of channels	48	
Operating channel		
DWDM ports	Channel code 1: C14 to C61 (1528.77 to 1566.31 nm / 191400 to 196100 GHz)	
	Channel code 2: H13 to H60 (1529.16 to 1566.72 nm / 191350 to 196050 GHz)	
Channel Spacing	100 GHz	
Passband width		
0.5dB	> 35 GHz	
1.0dB	> 45 GHz	
3.0dB	> 70 GHz	
Insertion Loss	**max** [1]	**typical** [2]
	< 5.0 dB	
Isolation [3]		
DWDM adjacent channels	> 23 dB	
Total	> 21 dB	
Optical Return Loss	> 40 dB (for the component, also depends on connectors)	
Chromatic Dispersion	between -20 and 20 ps/nm	
Polarization Mode Dispersion	< 0.5 ps	
Polarization Dependent Loss	< 0.5 dB	

[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] 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.
[3] For demux only.

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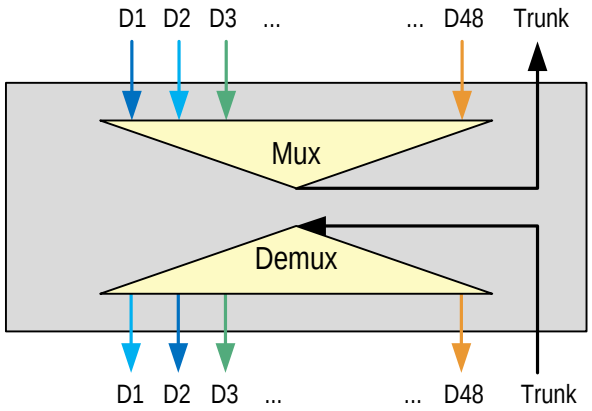
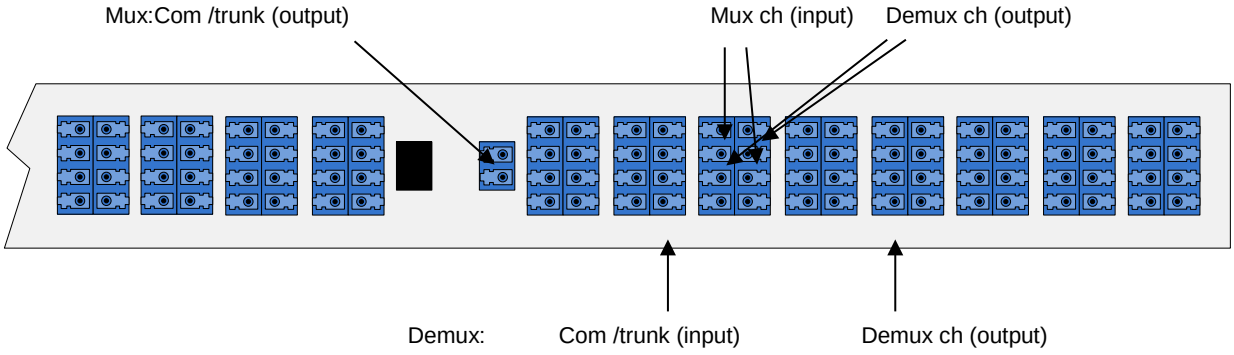
Package Dimensions and Front Plate design

Logical setup



Connection Scheme

- The channel ports are marked with “01”, “02”,…“48”.
- Actual port assignment displayed on the label at the left side of front panel.
- The channels are marked with “C16”, “C17”,…“C61” (resp. “H16”, “H17”, … “H61”) according to the ITU-T 100 GHz DWDM grid.



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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
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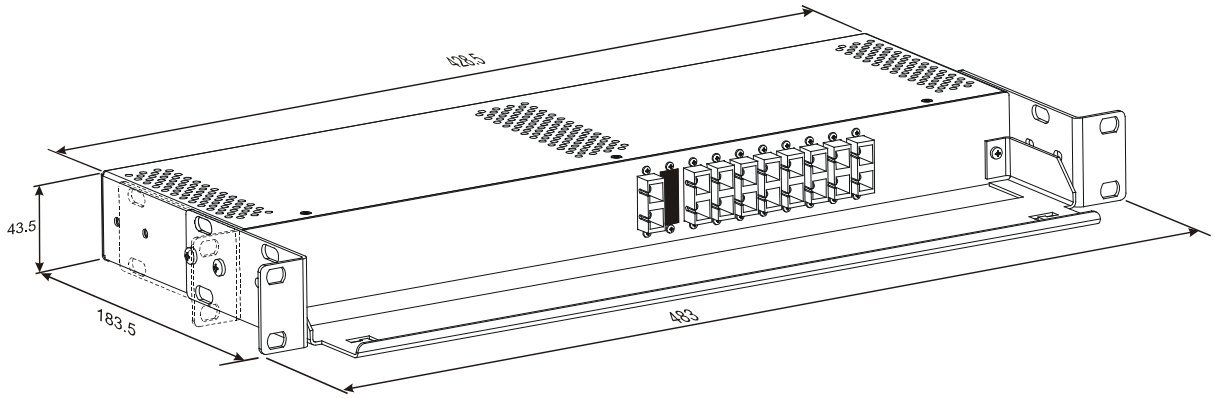

The drawing only illustrates the dimensions but not the specific configuration of the unit!

HUBER+SUHNER Cube Optics AG
is certified according to ISO 9001.

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