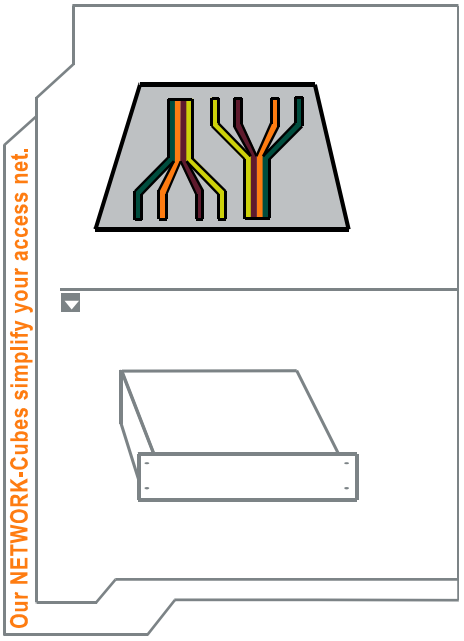
NETWORK CUBE
> DWDM-MUX-40+1310 Unit for 40G/100G C-2481-Rev.A

Product Description

- Passive WDM unit for 19” rack type installation (1HU).
- The unit contains two pieces of forty-channel DWDM 100GHz multiplexers (one mux, one demux) and two 1310nm ports.
- The 1310nm channel can be used for 40G/100G Transceivers (40GBASE-LR4/ER4 resp. 100GBASE-LR4/ER4).
- The forty DWDM channels are able to transport 400Gbps so that one can run totally 500Gbps over this unit.
- DWDM multiplexers to multiplex and de-multiplex 40 DWDM channels in the C band.
- The multiplexers are based on a-thermal AWG technology with Gaussian shaped pass bands.
- 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-40+1310 Unit
- Product Code: C-2481
- Revision Level: -Rev.A

Example Order Code: C-2481-Rev.A for a DWDM Unit with channels C20 – C59 and 1310 ports.

Revision History

No.	Description	Date	Created by
A	Initial release	06.07.11	Carsten Marheine

Cube Optics AG

NETWORK CUBE
> DWDM-MUX-40+1310 Unit for 40G/100G C-2481-Rev.A

General Specifications

Operating Temperature	-5°C to +65°C	
Storage Temperature	-40°C to +80°C	
Max. optical Power	< 250 mW (24 dBm)	
Fiber Type	SMF-28 compatible	∅ 9 / 125 / 250µm
Optical Adapters		
All ports	LC/UPC	

Optical Performance

Number of channels	40	
Operating Channel		
DWDM ports	C20 to C59	
1310nm port (40G / 100G)	1260 to 1360 nm	
Channel Spacing	100 GHz	
1.0 dB Passband Width	0.24 nm (30 GHz)	
Insertion Loss 1310nm (40G/100G) Port [1]	< 1.2 dB	
Insertion Loss DWDM Ports	**max.** [1]	**typical** [3]
	< 4.8 dB	3.5 dB
Isolation [2]		
DWDM channel at 40G/100G Port	> 45 dB	
DWDM adjacent channel	> 28 dB	
All other DWDM channels (cumulated) at DWDM Port	> 23 dB	
40G/100G at DWDM Port	> 45 dB	
Optical Return Loss	> 45 dB	
Polarization Dependent Loss	< 0.5 dB	
Chromatic Dispersion (CD)	between -20 ps/nm and 20 ps/nm	

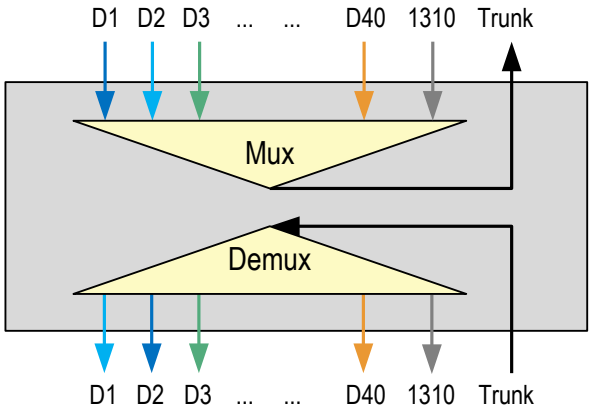
Notes:

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.

NETWORK CUBE
> DWDM-MUX-40+1310 Unit for 40G/100G C-2481-Rev.A

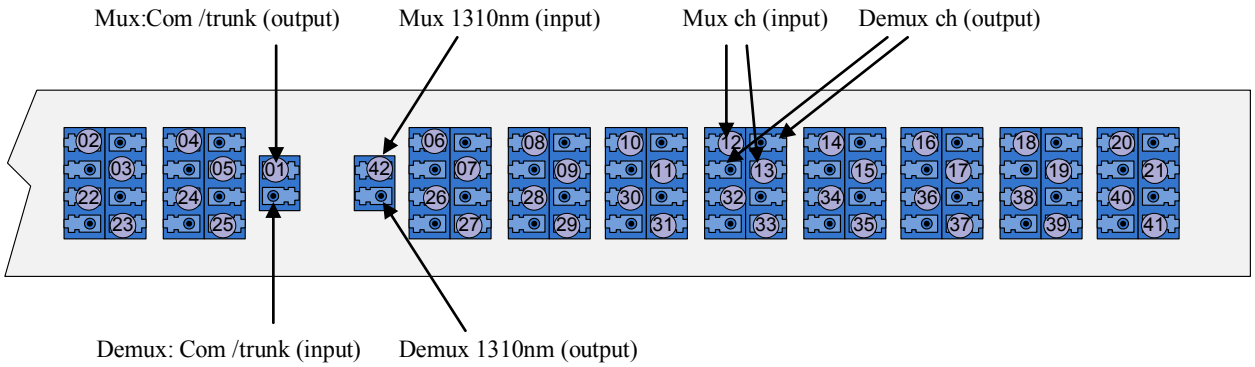
Package Dimensions and Front Plate design

Logical setup:



Connection Scheme:.

- The channel ports are marked with “01”, “02”,…“21”.
- Actual port assignment displayed on the fiber tray.
- The channels are marked with “C20”, “C21”,…“C59”according to the ITU-T 100 GHz DWDM grid.

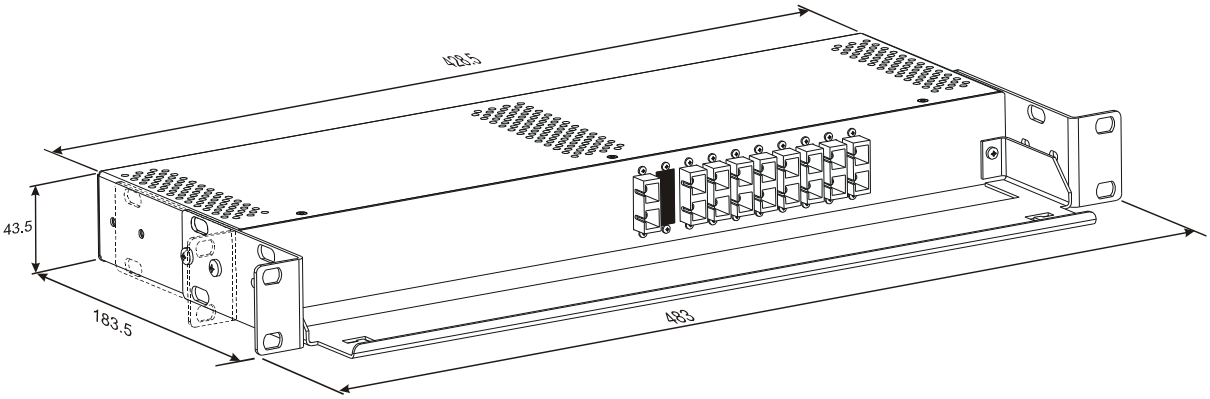


(Mux ports are labeled with circle and number on this drawing.)

NETWORK CUBE
> DWDM-MUX-40+1310 Unit for 40G/100G C-2481-Rev.A

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!

Corporate Office:
Cube Optics AG
Robert-Koch-Strasse 30
55129 Mainz
Germany

Fon: +49-6131-69851-0
Fax: +49-6131-69851-79
e.mail: sales@cubeoptics.com

www.cubeoptics.com