

NETWORK CUBE

DWDM-MUX-40 Unit

C-2477_Rev.B

Product Description

- Passive WDM unit for 19" rack type installation (1HU).
- The unit contains two pieces of 40-channel DWDM 100GHz multiplexers (one mux, one demux).
- DWDM multiplexers to multiplex and de-multiplex 40 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-40 Unit
- Product Code: C-2477
- Channel Code: -ZZZ (choose from table)
- Revision Level: -Rev.B

(ZZZ) Channels	Code
Channels C20 - C59	200
Channels C21 - C60	210
Channels H19 - H58	195
Channels H20 - H59	205
Channels H21 - H60	215

Example Order Code: **C-2477-200-Rev.B** for a DWDM unit with channels C20-C59.



Revision History

No	Description	Date	Created by
A	Initial release	16.06.11	Carsten Marheine
B	Improved insertion loss and H-band channels	06.06.12	Carsten Marheine

NETWORK CUBE DWDM-MUX-40 Unit

C-2477_Rev.B

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 Ø 9 / 125 / 250µm
Optical Adapters	
All ports	LC/UPC

Optical Performance

Number of channels	40
Operating channel	
Channel Code 195	H19 to H58 (1530.73 to 1561.86 nm / 191950 to 195850 GHz)
Channel Code 200	C20 to C59 (1530.33 to 1561.42 nm / 192000 to 195900 GHz)
Channel Code 205	H20 to H59 (1529.94 to 1561.01 nm / 192050 to 195950 GHz)
Channel Code 210	C21 to C60 (1529.55 to 1560.61 nm / 192100 to 196000 GHz)
Channel Code 215	H21 to H60 (1529.16 to 1560.20 nm / 192150 to 196050 GHz)
Channel Spacing	100 GHz
Passband width	
@ 0.5 dB off-peak	> 35 GHz
@ 1.0 dB off-peak	> 45 GHz
@ 3.0 dB off-peak	> 70 GHz
Insertion Loss	max ¹ typical ²
	< 5.0 dB
Isolation ³	
DWDM adjacent channel	> 23 dB
Total	> 21 dB
Optical Return Loss	> 40 dB (for the component, also depends on connectors)
Chromatic Dispersion	±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.

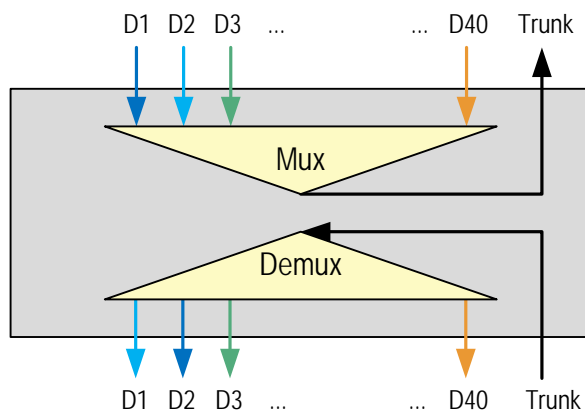
³ Definition of isolation applies for demux only.

NETWORK CUBE DWDM-MUX-40 Unit

C-2477_Rev.B

Package Dimensions and Front Plate design

Logical setup



Connection Scheme

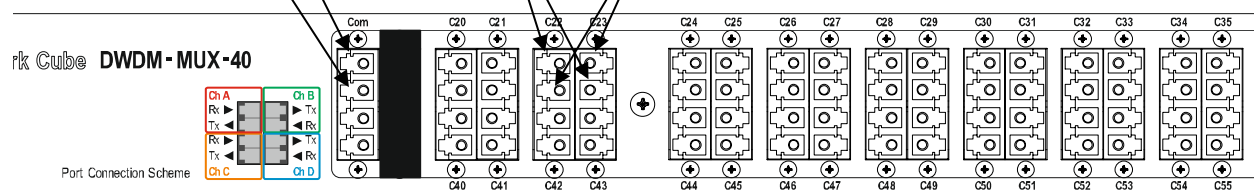
- The channel ports are labelled as "C20", "C21", ..., "C50" (channel option -200)
- The line ports are labelled as "Com". "Rx" for demux line ingress, "Tx" for mux line egress
- A port connection scheme on the front face depicts which channel port is Tx (demux) and which Rx (mux)

Front Layout

Demux: Com /trunk (input)
Mux:Com /trunk (output)

Mux ch (input)

Demux ch (output)

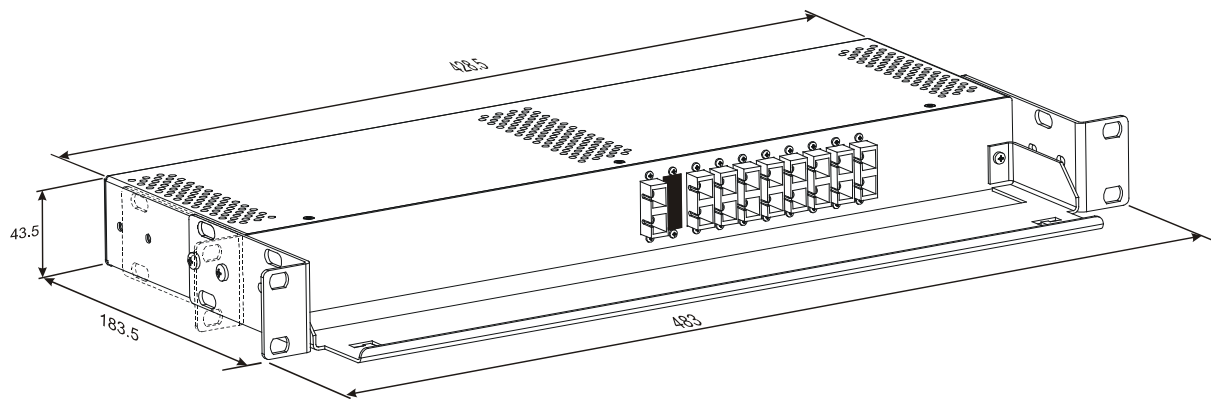


NETWORK CUBE DWDM-MUX-40 Unit

C-2477_Rev.B

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



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.

WAIVER

It is exclusively in written agreements that we provide our customers with warrants and representations as to the technical specifications and/or the fitness for any particular purpose. The facts and figures contained herein are carefully compiled to the best of our knowledge, but they are intended for general informational purposes only.

HUBER+SUHNER Cube Optics AG
Robert-Koch-Strasse 30
55129 Mainz
Germany

phone: +49-6131-69851-0
fax: +49-6131-69851-79
sales.cubo@hubersuhner.com

www.hubersuhner.com
www.cubeoptics.com