

NETWORK CUBE DWDM-MUX-16+UG Unit

C-2403_Rev.B

Product Description

- Passive WDM unit for 19" rack type installation (1HU).
- The unit contains two pieces of 16-channel DWDM 100GHz multiplexers (one mux, one demux) with upgrade channel.
- DWDM multiplexers to multiplex and de-multiplex 16 DWDM channels out of the C band.
- The UG Port provides additional 16 DWDM channels out of C band, the no choosing band.
- 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-16+UG Unit
- Product Code: C-2403
- Channel Code Cluster 1: -Z1 (choose from table)
- Channel Code Cluster 2: -Z2 (choose from table, different from Z1)
- Connector Code: -XY (choose from table)
- Revision Level: -Rev.B

(Z1; Z2) Channel	Code
C18 - C25&C27-C34	18-27
C45 - C52&C54-C61	45-54

(X) Common ports	Code
(Y) CWDM / UG ports	
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-2403-18-27-55-Rev.B** for a DWDM unit (C18- C25 & C27 – C34) UG port provide the other cluster all ports are with LC/PC



Revision History

No	Description	Date	Created by
A	Initial release	16.01.12	Christian Zank
B	revised channel codes	24.01.13	Islah Touhtouh
B	added typical insertion loss values	27.01.15	Christian Zank

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General Specifications

Operating Temperature	-5°C to +70°C
Storage Temperature	-40°C to +80°C
Max. optical Power	< 300 mW
Fiber Type	SMF-28 compatible Ø 9 / 125 / 250µm
Optical Adapters	
All ports	to be selected by customer via order code

Optical Performance

Number of channels	16+1
Operating channel	
DWDM Channels	two clusters out of:
Cluster 1	C18 - C25 & C27-C34
Cluster 2	C45 - C52 & C54 - C61
Upgrade Channel	remaining channels less adjacent channels to the chosen clusters
Channel Spacing	100 GHz
Insertion Loss	max ¹ typical ²
DWDM	< 4.5 dB 2.7 dB
Upgrade	< 1.0 dB 0.9 dB
Link Loss	< 6.5 dB 4.2 dB
Isolation ³	
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

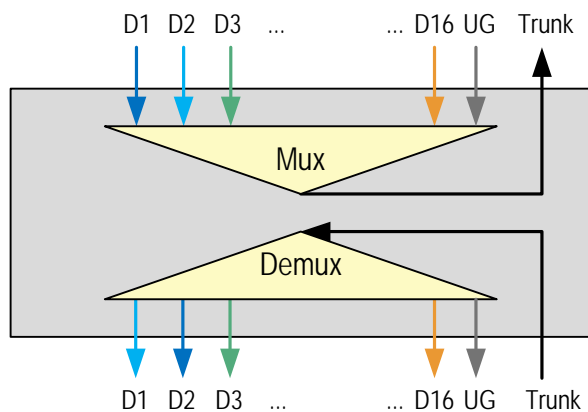
¹ Max. insertion loss over channel bandwidth, valid over full operating temperature range and all states of polarization including optical connectors. The typical connector loss is 0.4 dB for a pair of connectors

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.

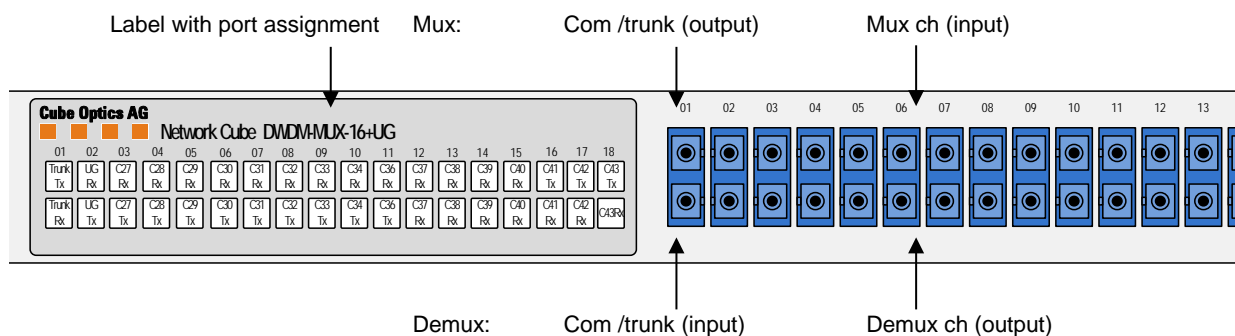
Package Dimensions and Front Plate design

Logical setup



Connection Scheme

- The channel ports are marked with "01", "02", ..., "18".
- Actual port assignment displayed on the label at the left side of front panel.
- The channels are marked with "C27", "C28", ..., "C43" according to the ITU-T 100 GHz DWDM grid.
- 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.

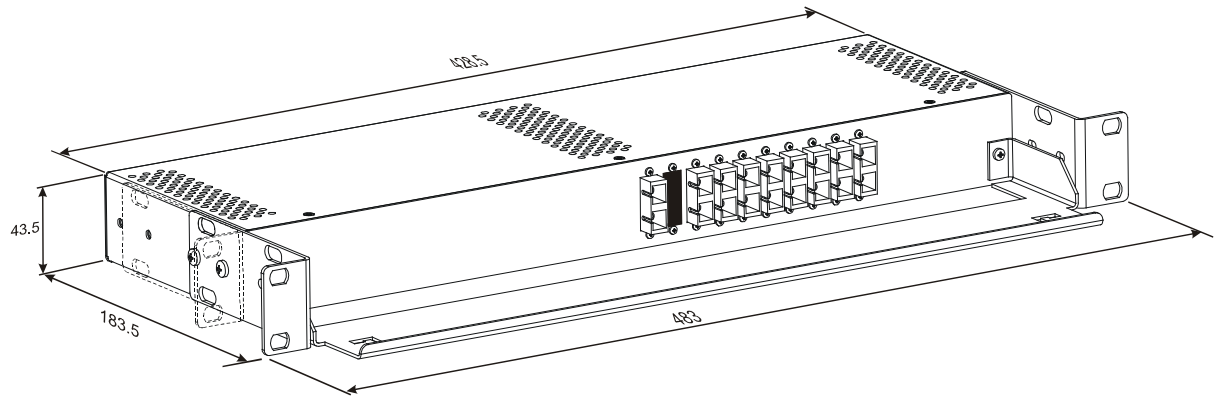
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Layout and dimensions

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

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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