

NETWORK CUBE

CWDM-MUX-14+UG Unit

C-2458_Rev.B

Product Description

- Passive WDM unit for 19" rack type installation (1HU).
- The unit contains two pieces of 14-channel CWDM multiplexers (one mux, one de-mux) with upgrade channel.
- CWDM multiplexers to multiplex and de-multiplex 14 CWDM channels and one upgrade channel. See channel plan on page 2. The upgrade channel permits the upgrade of further 40 DWDM channels (additional DWDM unit required).
- The CWDM multiplexers are compliant with the ITU G.694.2 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 CWDM-MUX-14+UG Unit
- Product Code: C-2458
- Connector Code: -XY (choose from table) →
- Revision Level: -Rev.B

(X) Common ports (Y) CWDM / UG 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-2458-15-Rev.B** for a unit 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	18.10.11	Christian Zank
B	Revised upgrade channel; extended temp. range, typical IL	23.03.15	Christian Zank

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C-2458_Rev.B

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	14 CWDM, 1 UG	
Operating channel		
CWDM ports [nm]	1271 to 1371 nm; 1431 to 1511 nm; 1571 to 1611 nm	
Upgrade port	1525.0 - 1561.5 nm (ITU 100GHz: C20 to C65)	
Passband (CWDM)	13 nm	
Insertion Loss	max ¹	typical ²
CWDM channels	< 4.5 dB	2.9 dB
UG channel	< 2.0 dB	1.2 dB
Link Loss	< 6.5 dB	
Isolation ³		
CWDM adjacent channels	> 25 dB	
CWDM non-adjacent channels	> 40 dB	
CWDM @ UG channel	> 40 dB	
UG @ adj. CWDM channels	> 25 dB	
Optical Return Loss	> 45 dB (for the component, also depends on connectors)	
Directivity	> 50 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. When operating DWDM upgrade units comprising ITU channels C20 and C21 the isolation of channels C20 and C21 at port CWDM 1571 will be min.15 dB. Does not apply for other DWDM channels.

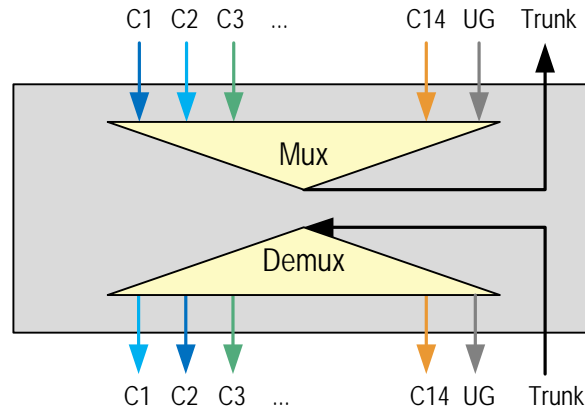
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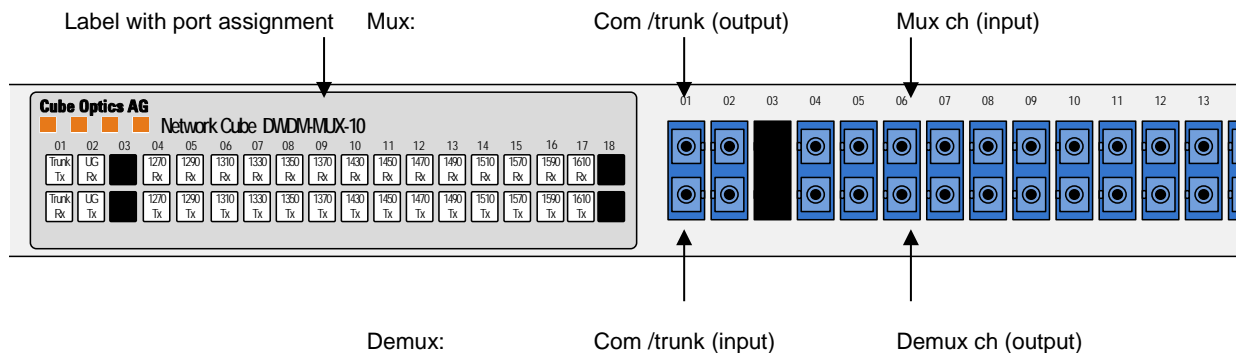
Package Dimensions and Front Plate design

Logical setup



Connection Scheme

- The channel ports are labeled with "01", "02",... "12".
- Actual port assignment displayed on the label at the left side of front panel.
- The channels are labeled "1270", "1290",... "1610".
- The Upgrade port is labeled "UG"
- 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.

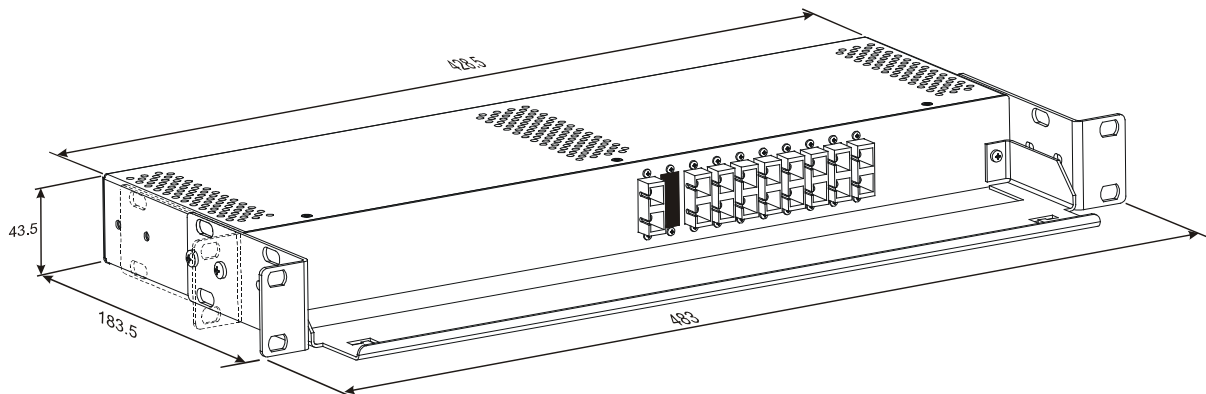
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Layout and dimensions

- 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 necessarily 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.

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