

### NETWORK CUBE

### DWDM-MUX-8 Unit

C-2469\_Rev.A

#### Product Description

- Passive WDM unit for 19" rack type installation (1HU).
- The unit includes two pieces of 8-channel DWDM 100GHz multiplexers (one mux, one demux).
- DWDM multiplexers to multiplex and de-multiplex 8 DWDM channels in the C band. The DWDM channels to be chosen via channel code out of 5 clusters of 8 consecutive channels.
- 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-8 Unit
- Product Code: C-2469
- Channel Code : -ZZ (choose from table)
- Connector Code: -XY (choose from table)
- Revision Level: -Rev.A

(ZZ) Channels	Code
C18 - C25	18
C27 - C34	27
C36 - C43	36
C45 - C52	45
C54 - C61	54

(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-2469-27-15-Rev.A** for a DWDM unit (channels C27 – C34) with SC/PC on all common / trunk ports and LC/PC on all WDM and upgrade ports.



#### Revision History

No	Description	Date	Created by
A	Initial release	26.05.11	Christian Zank
A	Revised typical insertion loss values	27.01.15	Christian Zank

### NETWORK CUBE DWDM-MUX-8 Unit

C-2469\_Rev.A

#### General Specifications

Operating Temperature	+0°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	8
Operating channel	
DWDM cluster # 1	C18 to C25
DWDM cluster # 2	C27 to C34
DWDM cluster # 3	C36 to C43
DWDM cluster # 4	C45 to C52
DWDM cluster # 5	C54 to C61
Channel Spacing	100 GHz
Insertion Loss	<b>max</b> <sup>1</sup> <b>typical</b> <sup>2</sup>
DWDM	< 3.4 dB                      2.5 dB
Link Loss	< 4.7 dB                      3.8 dB
Isolation <sup>3</sup>	
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

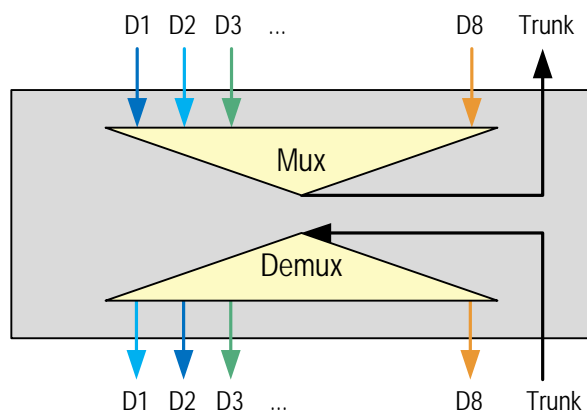
<sup>1</sup> Max. insertion loss over channel bandwidth, valid over full operating temperature range and all states of polarization including optical connectors. The typical connector loss is 0.4 dB for a pair of connectors

<sup>2</sup> 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.

<sup>3</sup> For demux only.

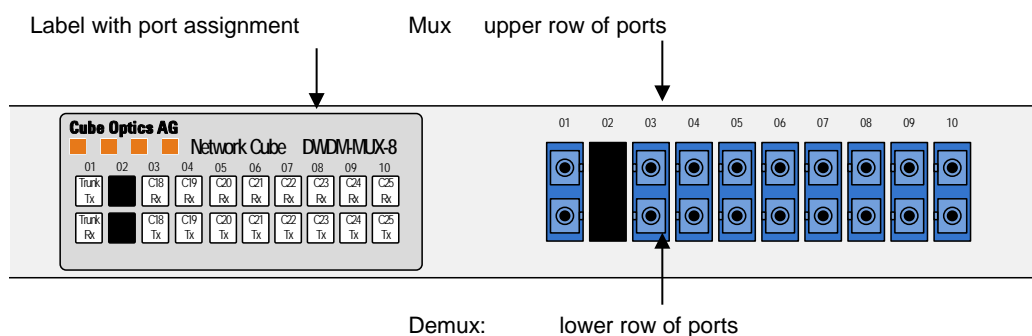
#### Package Dimensions and Front Plate design

##### Logical setup



##### Connection Scheme

- The channel ports are marked with "01", "02", ..., "10".
- Actual port assignment displayed on the label at the left side of front panel.
- The channels are labeled as "C18", "C19", ..., "C25" according to the ITU-T 100 GHz DWDM grid and the chosen cluster.
- Common/line ports are labeled as "Trunk"
- All ports are equipped with adapters as defined by customer via order code.



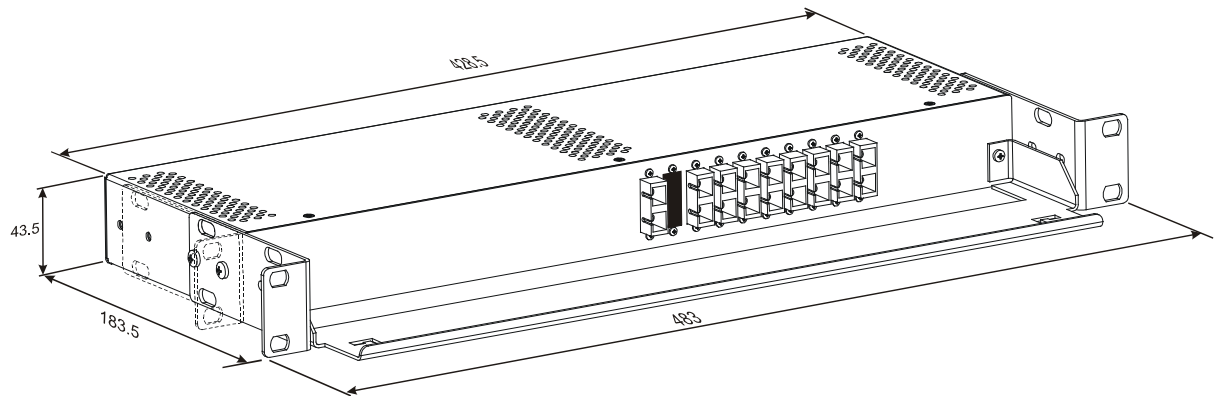
Please note, that the actual layout depends on the chosen connector type as well as other factors. However, the principal scheme stays the same.

## NETWORK CUBE DWDM-MUX-8 Unit

**C-2469\_Rev.A**

### Layout and dimensions

- Width: 483 mm (19"), 532 mm (ETSI)
- Height: 43.5 mm (1.732") / 1HU
- Depth: 183.5 / 125 mm
- Finishing: powder coating
- Color: 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!

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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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