

NETWORK CUBE

DWDM-MUX-8FS Unit

C-2513_Rev.B

Product Description

- Passive WDM unit for 19" rack type installation (1HU).
- The unit contains one piece of sixteen-channel DWDM 100GHz multiplexer.
- DWDM multiplexers to multiplex or de-multiplex sixteen DWDM channels out of the C band.
- The multiplexers operates bi-directional for up- and downstream transmission over 1 single fiber: The common / trunk works as input and output, each channel port may either used to multiplex the Tx transceiver signal to the trunk port or to de-multiplex the trunk signal to the Rx transceiver input – so typically eight channels upstream and eight channels downstream over one fiber.
- Combination of west and east unit leads to optimized link loss.
- The DWDM multiplexer is 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-8FS Unit
- Product Code: C-2513
- Channel Code : -ZZ (choose from table)
- Location Code: -W (choose from table)
- Connector Code: -XY (choose from table)
- Revision Level: -Rev.B

(ZZ) Channels	Code
C18 - C34 skip C26	18
C27 - C43 skip C35	27
C36 - C52 skip C44	36
C45 - C61 skip C53	45

(Z) Location	Code
West	W
East	E
not required	0

(X) Common ports	Code
(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-2513-27-E-15-Rev.B** for a DWDM unit with channels C27 to C43 (C35 skipped) for the east side with SC/PC on common / trunk ports and LC/PC on all DWDM ports.



Revision History

No	Description	Date	Created by
A	Initial release	09.12.11	Islah Touhtouh
B	Introduction of east and west units	17.10.12	Carsten Marheine

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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	16
Operating channel	
DWDM cluster # 1	C18-C25 and C27-C34
DWDM cluster # 2	C27-C34 and C36-C43
DWDM cluster # 3	C36-C43 and C45-C52
DWDM cluster # 4	C45-C52 and C54-C61
Channel Spacing	100 GHz
Insertion Loss	max ¹ typical ²
	< 4.0 dB
Link Loss ³	< 6.0 dB
Isolation	
DWDM adjacent channels	> 25 dB
DWDM non-adjacent channels	> 40 dB
Directivity	> 60 dB
Polarization Dependent Loss	< 0.3 dB

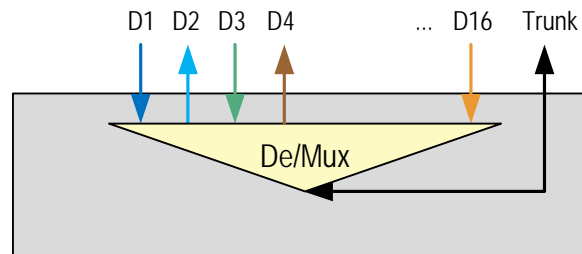
¹ Max. insertion loss over channel bandwidth, valid over full operating temperature range and all states of polarization including optical connectors. The typical connector loss is 0.4 dB for a pair of connectors.

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 Link loss applies only when combining an East with a West unit in a fiber link.

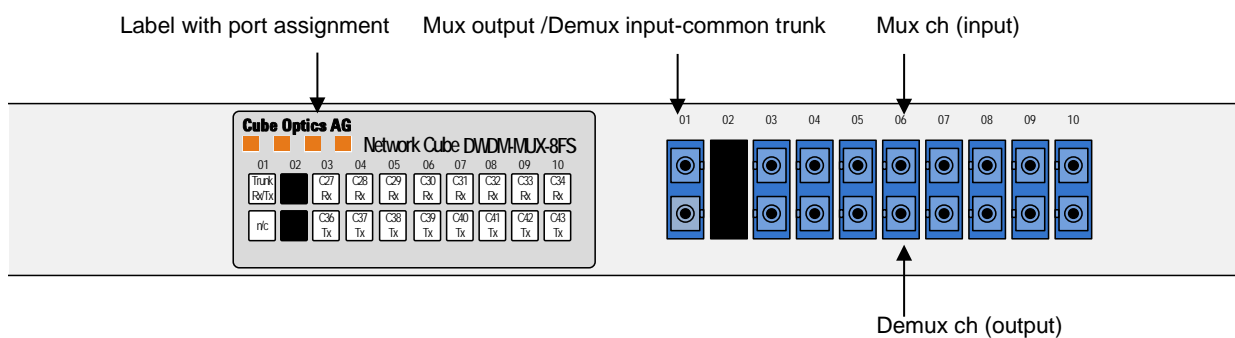
Package Dimensions and Front Plate design

Logical setup



Connection Scheme

- Optical ports are marked with "01", "02",... "10".
- Actual port assignment displayed on the label at the left side of front panel.
- The channels are marked with "C30", "C31",... "C39" 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.

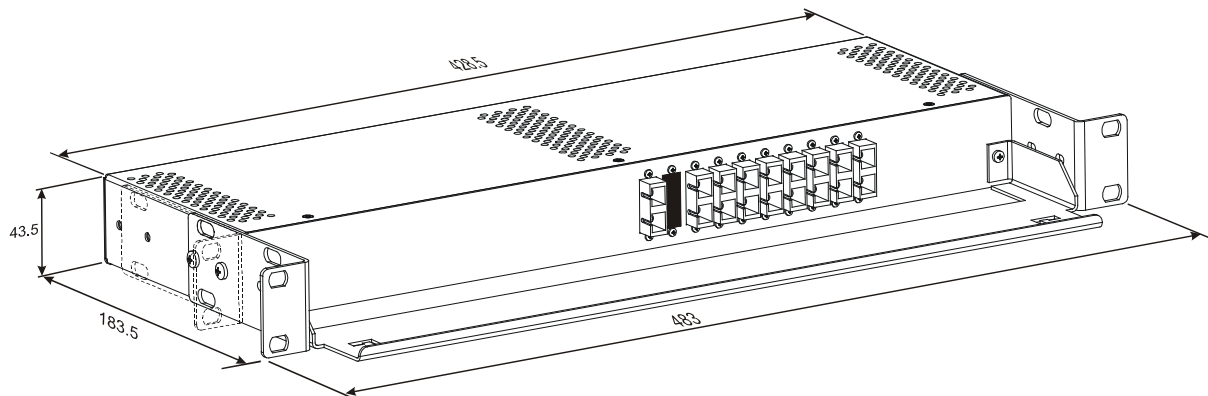
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Layout and dimensions

- 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.

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