

NETWORK CUBE
CWDM-MUX-8 Module

C-1939_Rev.A

Product Description

- CWDM module for integration in 1 slot of the CUBO NETWORK CUBE WDM-Modular-Shell (C-1608).
- The module contains 2 pieces of 8 channel CWDM multiplexers (1 mux, 1 demux).
- CWDM multiplexers to mux and demux 8 channels from 1271 to 1411nm; these correspond to the transceiver wavelengths from 1270 to 1410 nm.
- 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 sub-system interoperates with any router, switch, DSLAM, SFP and GBIC, which supports the CWDM ITU G.694.2 standard.
- Front panel is equipped with adapters according to customer choice (see below).

- Product Description: NETWORK CUBE CWDM-MUX-8 Module
- Product Code: C-1939
- Connector Code: -XY (choose from table) →
- Revision Level: -Rev.A

Example Order Code: **C-1939-15-Rev.A** for a module with SC/PC on all common / trunk ports and LC/PC on all CWDM channel ports

(X) Common ports (Y) CWDM 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



Revision History

No	Description	Date	Created by
A	Initial release	01.02.08	Carsten Marheine
A	Included typical insertion loss	18.02.10	Islah Touhtouh

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General Specifications

Operating Temperature	+0°C to +70°C
Storage Temperature	-40°C to +80°C
Max. optical Power	< 250 mW
Fiber Type	SMF-28 compatible Ø 9 / 125 / 250µm
Optical Adapters	
Trunk (Dx Input / Mx Output)	to be selected by customer via order code
CWDM channel ports	to be selected by customer via order code

Optical Performance of each of the 2 Multiplexers (1 mux, 1 demux)

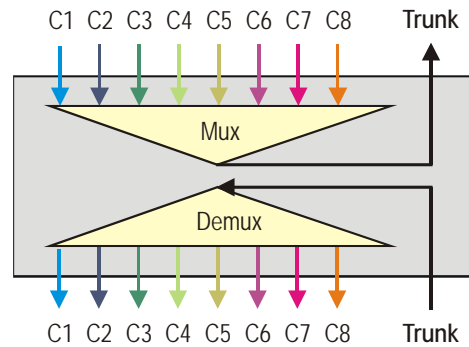
Operating channel								
CWDM ports [nm]	C1=1271	C2=1291	C3=1311	C4=1331	C5=1351	C6=1371	C7=1391	C8=1411
Channel Width								
CWDM channels	>13 nm							
Insertion Loss	max ¹		typical ²					
CWDM channels	< 2.8 dB		2,3 dB					
Isolation								
CWDM adjacent channel	> 30 dB							
CWDM non-adjacent channel	> 40 dB							
Isolation spectral range	1260 nm to 1460nm							
Optical Return Loss	> 45 dB (for the component, also depends on selected connector type)							
Directivity	> 50 dB							
Polarization Dependent Loss	< 0.2 dB							

¹ Max. insertion loss over channel bandwidth, valid over full operating temperature range and all states of polarization with 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 methods from actual production data to reflect the majority of cases.

Package Dimensions and Front Plate design

Logical setup

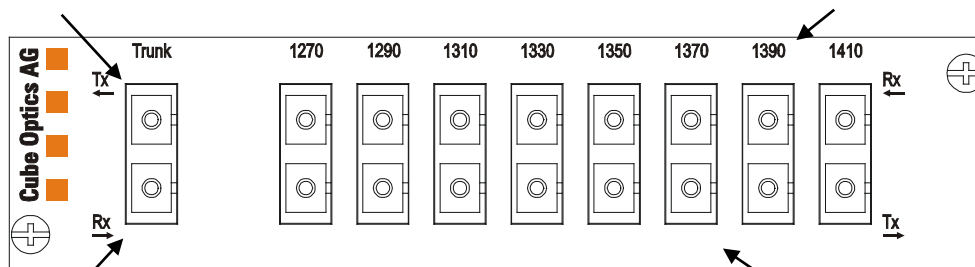


Connection Scheme

- The module contains the adapters for one multiplexer (C1-C8) on the top and one demultiplexer (C1-C8) on the bottom.
- The channels are marked with "1270", "1290", ... "1410" corresponding to the 8 transceiver wavelengths.
- The common ports are marked as "Trunk".

Mux - common / output / trunk

Mux channels (input)



Demux - common / input / trunk

Demux channels (output)

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

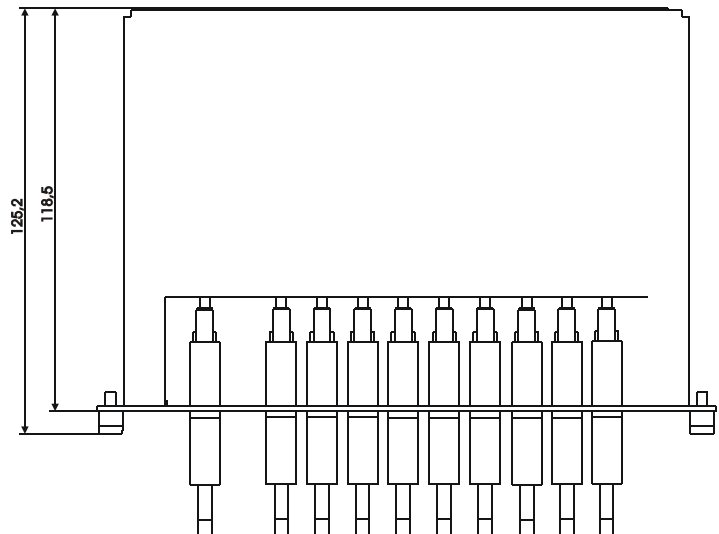
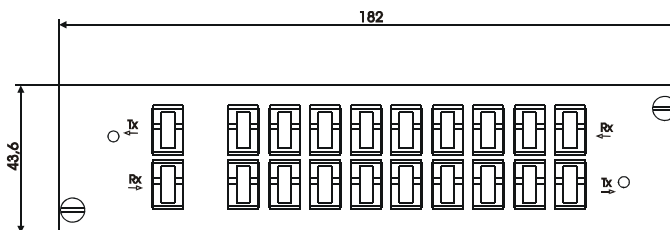
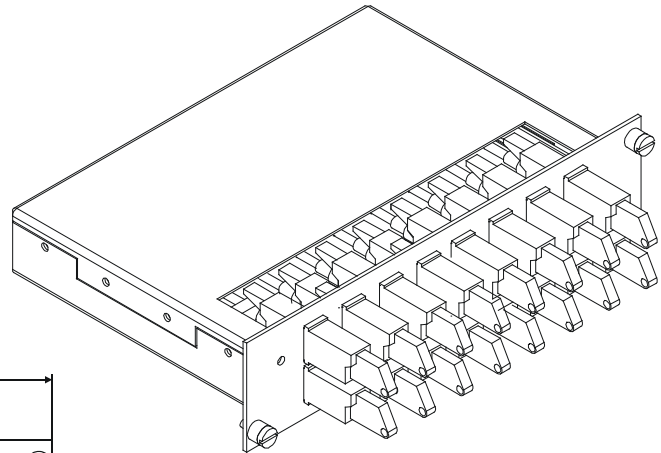
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Layout and dimensions

- Width: 166 / 182 mm
- Height: 25.75 / 44 mm
- Depth: 118.5 / 125.2 mm
- The color of the module is light gray
- All fonts and labels are printed in black.



Please note, that the drawings shown here only show the dimensions and do 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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