NETWORK Cubes

HUBER+SUHNER Cube Optics

NETWORK CUBE
CWDM-MUX-2FS Module

C-1962-Rev.B

Product Description

- Passive WDM module for integration in one slot of the CUBO NETWORK CUBE WDM-Modular-Shell (C-1608).
- The module contains one piece of four channel CWDM multiplexers for two fiber services over one single fiber, two upstream and two downstream channels
- The trunk port works as in-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
- Combination of west and east unit leads to optimized link loss.
- CWDM multiplexers to mux and demux 2 fiber services by using the CWDM wavelengths; these correspond to the transceiver wavelengths.
- 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 CWDM ITU G.694.2 standard..

- Product Description: NETWORK CUBE CWDM-MUX-2FS Module
- Product Code: C-1962
- Channel Code: -ZZ (choose from table)
- Location Code: -W (choose from table)
- Connector Code: -XY (choose from table)
- Revision Level: -Rev.B

Example Order Code: **C-1962-51-W-11-Rev.B** for a west side CWDM module with 1511nm as start channel with SC/PC on all ports.

(ZZ) Channels	Code
1511; 1531; 1551; 1571	51
1531; 1551; 1571; 1591	53

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

(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	17.01.08	Carsten Marheine
B	Channel Code modified	21.11.12	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 ∅ 9 / 125 / 250µm
Optical Adapters	
Common ports	to be selected by customer via order code
CWDM channel ports	to be selected by customer via order code

Optical Performance of the Multiplexer / Demultiplexer

Number of channels	4
Operating channel	
CWDM ports [nm]	to be selected over order code
Channel Width	>13 nm
Insertion Loss [1]	
CWDM channels	< 2.4 dB (including connectors and adapters)
Link Loss [2]	
CWDM channels	< 3.8 dB (including connectors and adapters)
Isolation	
CWDM adjacent channel	> 30 dB
CWDM non-adjacent channel	> 40 dB
Isolation spectral range	1460 nm to 1620nm
Optical Return Loss	> 45 dB (for the component, also depends on connectors)

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

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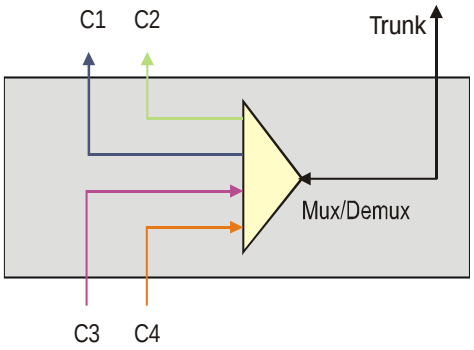
Package Dimensions and Front Plate design

Logical setup

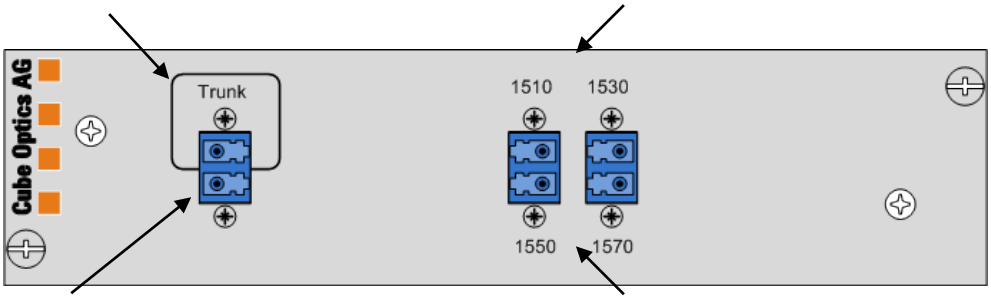


Connection Scheme

- The module contains the adapters for 2 demultiplexer channels (C1-C2) on the top and 2 multiplexer channels (C3-C4) on the bottom.
- The channels are marked with “1510”, “1530”, “1550” and “1570”corresponding to the 4 transceiver wavelengths.
- The common port is marked as “Trunk”.

Common / output / trunk

Mux channels input or output (1510, 1530)



Empty

Mux channels input or output (1550, 1570)

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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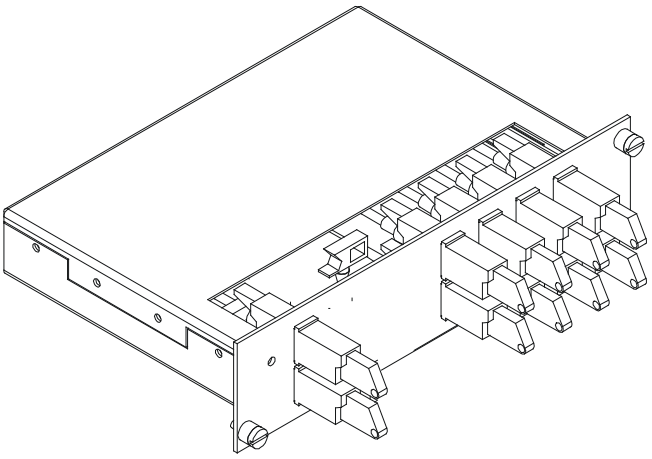
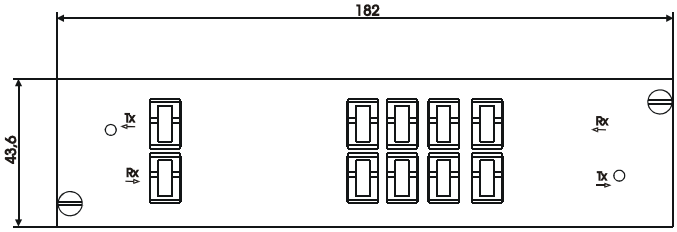
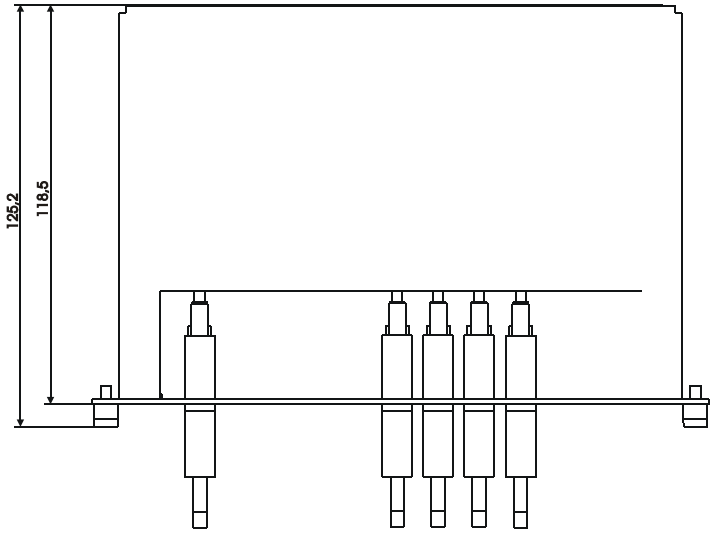
Layout and dimensions

- 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!

HUBER+SUHNER Cube Optics AG
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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