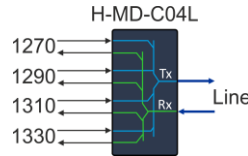
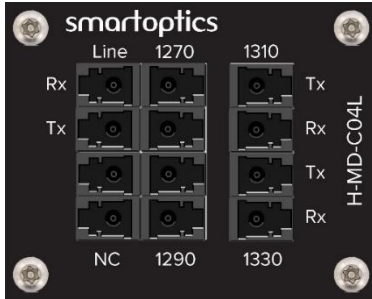


H-MD-C04L

4-channel CWDM Low-band Mux/Demux



OVERVIEW

The H-MD-C04L is a low insertion loss CWDM Mux/Demux unit covering four channels in the lower CWDM band, 1270 to 1330nm. The H-MD-C04L can as an example be used for 4x 100G configurations using single-lambda 100G transceivers based on the 100G-BASE-LR or -FR MSA's shown in the figure below.

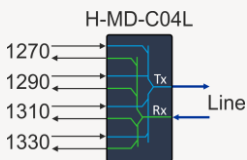


Another example configuration is for 400G to 4x 100G breakout configurations where the single-lambda 100G transceivers are connected to the corresponding 400GBASE-FR4 and -LR4 MSA transceivers.

The H-MD-C04L filter supports the industrial temperature (I-temp) range of -40°C to +85°C (-40°F to +185°F) which gives an extended application range into sites without temperature control. If the operating temperature is kept within 0 to +70°C (+32 to +158°F) some of the worst-case loss values will be reduced. The listed loss values in the below table are for 0 to +70°C operation. Loss values increased at I-temp conditions are marked.

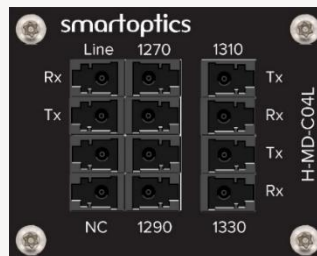
The H-Series filters are mounted in a 1 RU mounting bracket solution, and the filter module sizes vary depending on type of filter. The H-MD-C04L filter is compliant with ITU-T G.694.2.

FUNCTIONAL OVERVIEW AND PORT DESCRIPTION



Client and Line signals entering the filter is denoted "Rx".
Client and Line signals exiting the filter is denoted "Tx".

Line Rx	1270 Tx	1310 Rx
Line Tx	1270 Rx	1310 Tx
NC	1290 Tx	1330 Rx
NC	1290 Rx	1330 Tx



Note: The channel labels "1270", "1290" etc on the overlay are not representing the actual center wavelengths. The actual center wavelengths are at 1271nm, 1291nm etc. as defined in ITU-T G.694.2 and listed in the table below.

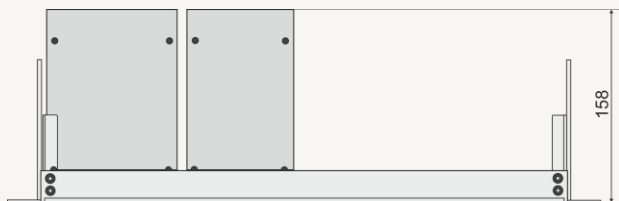
Subject to change without notice.

For more information visit smaroptics.com.

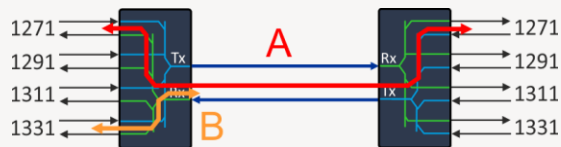
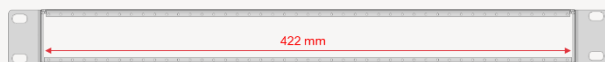
TECHNICAL SPECIFICATIONS

Parameter	C-temp conditions	I-temp Conditions
Channels	1271, 1291, 1311, 1331	←
Channel spacing	20nm	←
Channel passband	ITU±7nm	←
Link loss, per channel (A)	Typical 1.8dB Max 2.0dB	Typical 2.0dB Max 2.2dB
Insertion loss, per channel (B)	Typical 1.2dB Max 1.3dB	Typical 1.4dB Max 1.5dB
Isolation, adjacent channel	Min 30dB	←
Isolation, non-adjacent channel	Min 40dB	←
Ripple, passband	Max 0.5dB	←
Directivity	Min 45dB	←
Return loss	Min 40dB	←
Polarization dependent loss	Max 0.2dB	←
Polarization mode dispersion	Max 0.20ps	←
Connector type	LC/UPC	←
Module width	55mm	←
Operating temperature	0°C to +70°C	-40°C to +85°C
Storage temperature	-40°C to +85°C	←

Note! A typical loss value is to be seen as a value that ~90% of a population has at beginning of life and at room temperature. The max value is the guaranteed worst-case value over time and over temperature.



Mounting bracket dimensions with two example filters.



ORDER INFORMATION

Part number	Description
H-MD-C04L	H-Series: 4ch CWDM Low band Mux/Demux, 1271, 1291, 1311, 1331nm, 55mm, Link-loss channel=2.0dB, LC/UPC

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