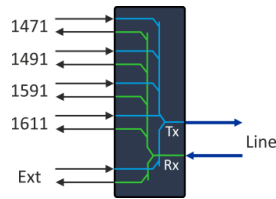


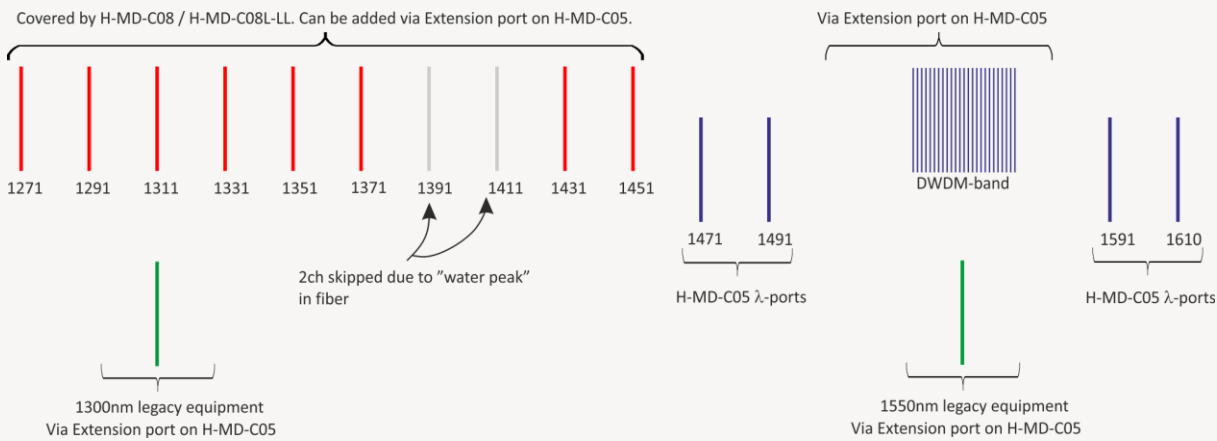
# H-MD-C05

## 4-channel CWDM Mux/Demux with Extension port



### OVERVIEW

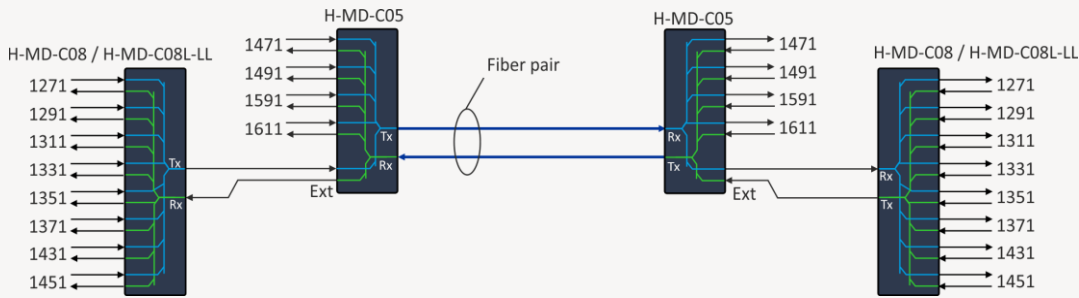
The H-MD-C05 is a 4ch CWDM Mux/Demux unit with an Extension port. The four wavelength ports of the H-MD-C05 operates on the high CWDM band channels; 1471/1491nm & 1591/1611nm. The wavelength band between these can be utilized for DWDM channels via the Extension port. Alternatively, the Extension port can be used to add 8 channels in the low CWDM band or for legacy 1310nm services. The figure below shows the Extension port possibilities.



The table below lists H-Series filters that can be connected to the Extension port.

Parameter	
Extension port wavelength bands H-MD-C05	1260 – 1464nm / 1498 – 1584nm / 1618 – 1620nm
Filters matching Ext port	H-MD-C04L (CWDM channels 1271 – 1331nm)
	H-MD-C08 (CWDM channels 1271 – 1451nm)
	H-MD-C08L-LL (CWDM channels 1271 – 1451nm)
	H-MD-09-xxx-yyy (DWDM channels 921 – 960 / 529.55 – 1560.61nm)
	H-MD-09-xxxx-EM-LL (DWDM channels 921 – 960 / 529.55 – 1560.61nm)
	H-MD-16-xxx-yyy (DWDM channels 921 – 952 / 1535.82 – 1560.61nm)
	H-MD-40-921-960 (DWDM channels 921 – 960 / 1529.55 – 1560.61nm)
M-3840-LL (DWDM channels 921 – 960 / 1529.55 – 1560.61nm)	

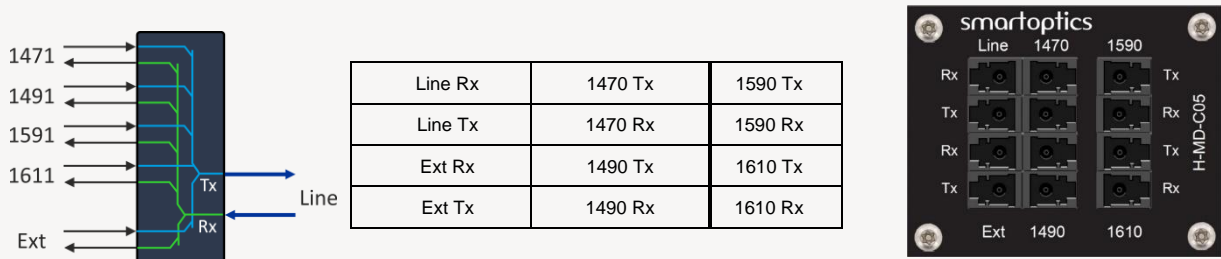
The figure below shows an example configuration where the H-MD-C05 filters are combined with the 8ch H-MD-C08 or H-MD-C08L-LL filters to provide a 4+8 channel configuration.



The H-MD-C05 filters need not be in the same location as the low CWDM-band filters. They can be placed in different racks within a site to ease fiber management. The attenuation of the patch cords between the H-MD-C05 and low band filters must be taken into account if the distance is long enough to make that relevant.

The H-Series supports the industrial temperature range of -40°C to +85°C (-40°F to +185°F) which gives an extended application range into sites without temperature control. The H-Series filters are mounted in a 1 RU mounting bracket solution, and the filter module sizes vary depending on type of filter.

### FILTER OVERVIEW AND PORT ALLOCATION



Note: The channel labels “1470”, “1490” etc on the overlay are not representing the actual center wavelengths. The actual center wavelengths are at 1471nm, 1491nm etc. as defined in ITU-T G.694.2.

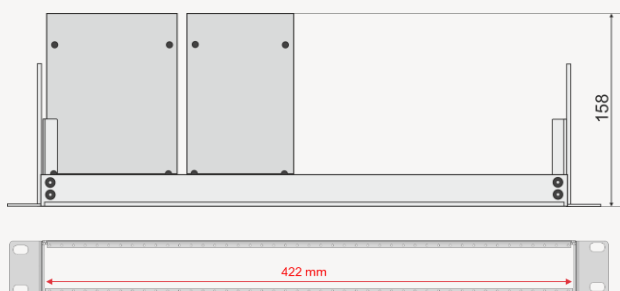
Client and Line signals entering the filter is denoted “Rx”.  
Client and Line signals exiting the filter is denoted “Tx”.

The filter is designed for using duplex connectors. Please note the location of Tx and Rx ports since they are column dependent.

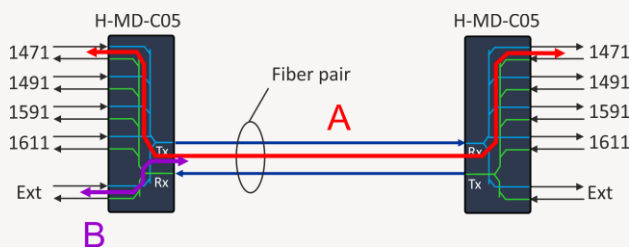
## TECHNICAL SPECIFICATIONS

Parameter	C-temp conditions	I-temp Conditions
Channels	1471, 1491, 1591, 1611	←
Channel spacing	20nm	←
Channel passband	ITU±7nm	←
Extension port channels	1271-1451, 1511-1571nm	←
Link loss, per channel (A)	Typical 2.5dB Max 2.8dB	Typical 2.7dB Max 3.0dB
Insertion loss, extension port (B)	Typical 1.4dB Max 1.6dB	Typical 1.6dB Max 1.8dB
Isolation, adjacent channel	Min 28dB	←
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	←
Operating temperature	0°C to +70°C	-40°C to +85°C
Storage temperature	-40°C to +85°C	←
Connector type	LC/UPC	←
Module width	55mm	←

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-C05	H-Series: 4ch CWDM Mux/Demux + Ext-port, 1471, 1491, 1591, 1611nm, 55mm, LC/UPC

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