

H-MD-16-xxx-yyy

16-channel DWDM Mux/Demux with Extension and Monitor ports



OVERVIEW

The H-MD-16-xxx-yyy filters are passive 16-channel DWDM protocol transparent Mux/Demux units. They operate with 100GHz spacing and have an additional DWDM Extension port so that additional channels can be seamlessly added to increase capacity. Channels operate in the standard C-band in dual fiber working configuration. The monitor ports tap off about 1% of the transmitted and received line signal. This provides the ability to monitor the channel power levels via a connected Optical Channel Monitoring (OCM) device or an optical spectrum analyzer

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.

FUNCTIONAL DESCRIPTION

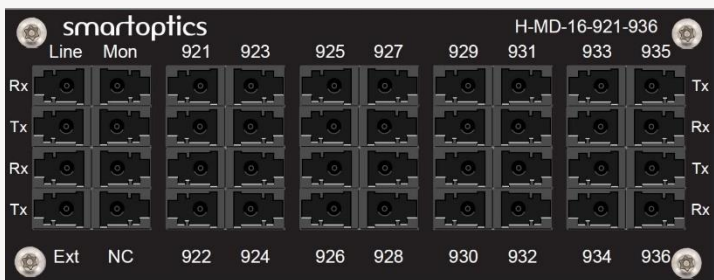
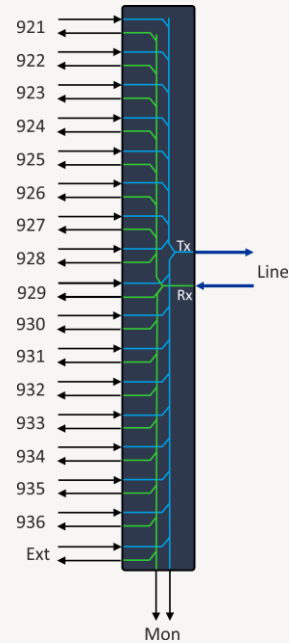
The extension port can be used for the following applications:

- Connect any of the H-MD-09-xxx-yyy units to expand with 8 additional DWDM wavelengths.
- Connect the other H-MD-16-xxx-yyy units to expand with 16 additional DWDM wavelengths.

Monitor ports are used to analyze outgoing and incoming line signals.

Compliant to ITU-T G.694.1

FUNCTIONAL OVERVIEW AND PORT DESCRIPTION



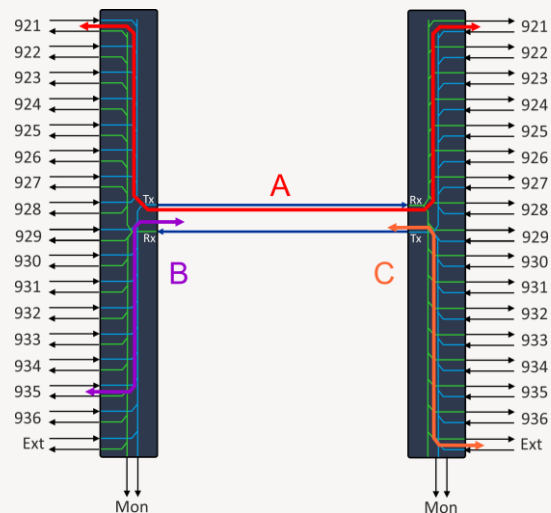
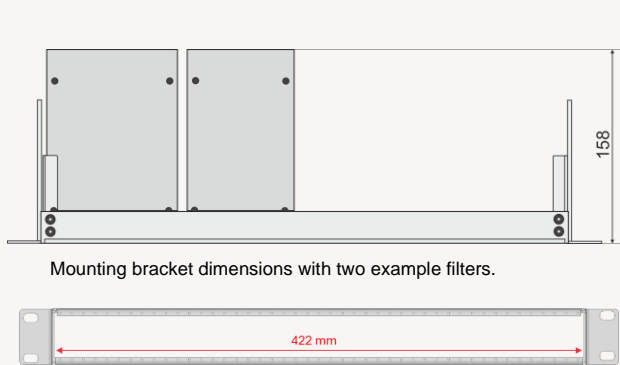
Line Rx	Mon Tx	921 Rx	923 Tx	925 Rx	927 Tx	929 Rx	931 Tx	933 Rx	935 Tx
Line Tx	Mon Rx	921 Tx	923 Rx	925 Tx	927 Rx	929 Tx	931 Rx	933 Tx	935 Rx
Ext Rx	NC	922 Rx	924 Tx	926 Rx	928 Tx	930 Rx	932 Tx	934 Rx	936 Tx
Ext Tx	NC	922 Tx	924 Rx	926 Tx	928 Rx	930 Tx	932 Rx	934 Tx	936 Rx

The port allocation and overlay example is for H-MD-16-921-936. Note column dependent location of Tx and Rx ports.

TECHNICAL SPECIFICATIONS

Parameter	C-temp conditions	I-temp Conditions
Channels H-MD-16-921-936	192.1 to 193.6THz	⇐
H-MD-16-937-952	193.7 to 195.2THz	⇐
Passband Ext-port	1520-1580nm / 189.7 to 197.2THz excl. ch passband	⇐
Channel spacing	100GHz	⇐
Channel passband @ -0.5dB	ITU±0.11nm	⇐
Channel passband @ -3.0dB	ITU±0.25nm	⇐
Link loss, per channel (A)	Typical 5.7dB Max 6.3dB	Typical 5.9dB Max 6.5dB
Insertion loss, per channel (B)	Typical 3.8dB Max 4.2dB	Typical 4.0dB Max 4.4dB
Insertion loss, extension port (C)	Typical 4.1dB Max 4.6dB	Typical 4.3dB Max 4.8dB
Insertion loss, monitor	18dB to 22dB	⇐
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	⇐
Max optical power	Max 300mW	⇐
Connector type	LC/UPC	⇐
Module width	113mm	⇐

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.



ORDER INFORMATION

Part number	Description
H-MD-16-921-936	H-Series: 16ch DWDM Mux/Demux + Ext- & Mon-port, 192.1 to 193.6THz, 113mm, LC/UPC
H-MD-16-937-952	H-Series: 16ch DWDM Mux/Demux + Ext- & Mon-port, 193.7 to 195.2THz, 113mm, LC/UPC

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