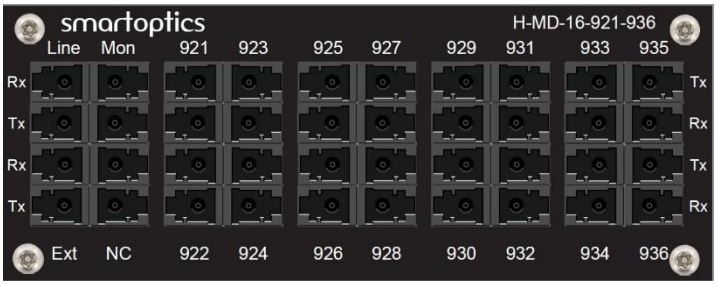
H-MD-16-xxx-yyy

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

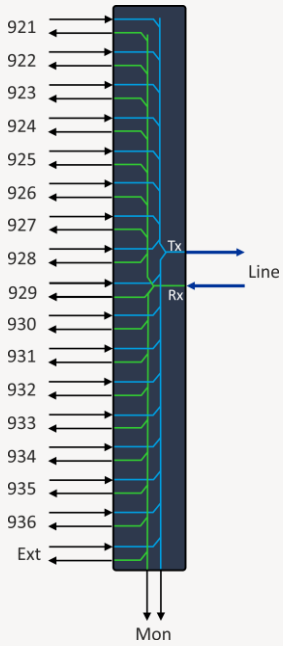
The H-Series supports the industrial temperature range of -40ºC to +85ºC (-40°F to +185°F) which gives an extended application range into sites without temperature control. The H-Series filters are mounted in a 1 RU mounting bracket solution, and the filter module sizes vary depending on type of filter.

FUNCTIONAL DESCRIPTION

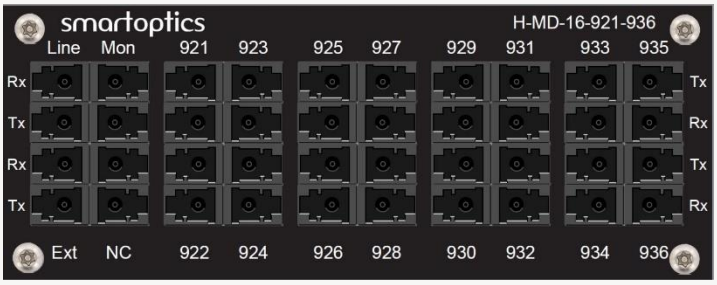
The extension port can be used for the following applications:

- 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



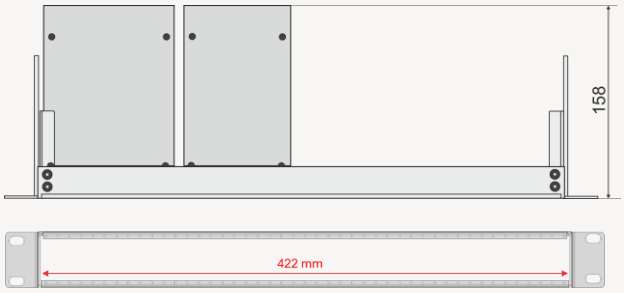
Line Rx	Mon Tx	921 Rx	923 Tx	925 Rx	927 Tx	929 Rx	931 Tx	933 Rx	935 Tx
Line Tx	Mon Rx	921 Tx	923 Rx	925 Tx	927 Rx	929 Tx	931 Rx	933 Tx	935 Rx
Ext Rx	NC	922 Rx	924 Tx	926 Rx	928 Tx	930 Rx	932 Tx	934 Rx	936 Tx
Ext Tx	NC	922 Tx	924 Rx	926 Tx	928 Rx	930 Tx	932 Rx	934 Tx	936 Rx

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

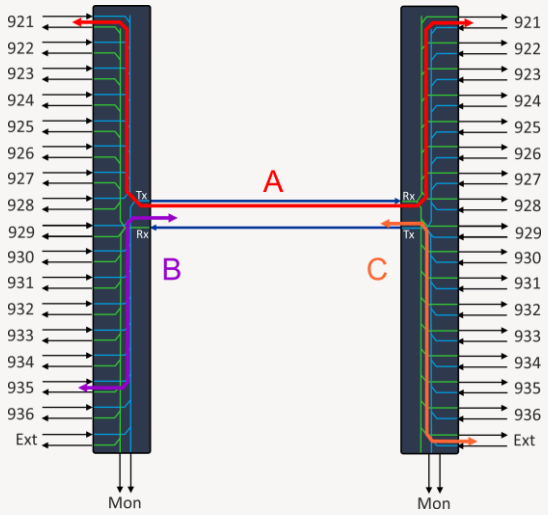
TECHNICAL SPECIFICATIONS

Parameter	Min	Max
Channels H-MD-16-921-936	192.1 to 193.6 THz	
H-MD-16-937-952	193.7 to 195.2 THz	
Channel spacing	100GHz	
Channel passband	ITU±0.11nm	
Pass band Extension port	1520-1580nm / 189.74 - 197.23 THz excl. ch passband	
Link loss, per channel (A)	5.9 dB typical	6.5 dB max
Insertion loss, per channel (B)	4.0 dB typical	4.4 dB max
Insertion loss, extension port (C)	4.3 dB typical	4.8 dB max
Insertion loss, monitor	18dB	22dB
Isolation, adjacent channel	28dB	
Isolation, non-adjacent channel	40dB	
Ripple, passband		0.5dB
Directivity	45dB	
Return loss	40dB	
Polarization dependent loss		0.2dB
Polarization mode dispersion		0.20ps
Operating temperature	-40°C	+85°C
Connector type	LC/UPC	
Module width	113mm	
Mounting bracket	H-Chassi-1RU (19"), 422mm slot width	
Mounting depth (flush mount)	158mm	

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

The H-MD-16-xxx-yyy units are available in two different versions depending on desired channel plan. The table below shows the part numbers and a short description.

Part number	Descreiption
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