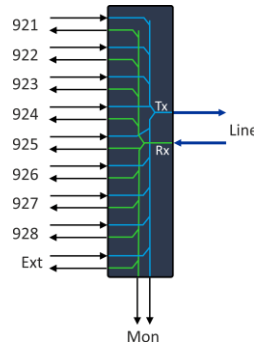
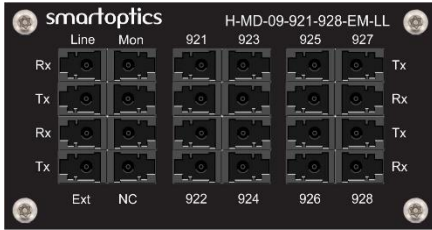


H-MD-09-xxx-yyy-EM-LL

Low-loss 8-channel DWDM Mux/Demux with Extension and Monitor ports



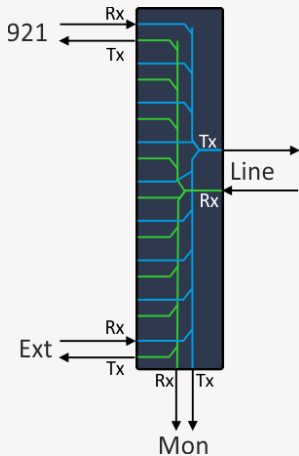
OVERVIEW

The H-MD-09-xxx-yyy-EM-LL filters are a range of low-loss, passive 8-channel DWDM protocol transparent Mux/Demux units. They operate with 100GHz spacing and have a low-loss Extension port so that additional channels can be seamlessly added to increase capacity. The filters can be combined in any order i.e. need not be connected in consecutive channel order. The channels operate in the standard C-band in dual fiber working configuration.

The H-MD-09-xxx-yyy-EM-LL filters have two Monitor ports that tap off 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.

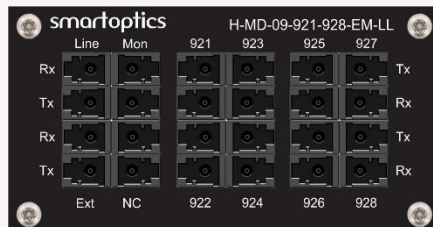
The H-MD-09-xxx-yyy-EM-LL filters support the industrial temperature (I-temp) range of -40°C to +85°C (-40°F to +185°F) which gives an extended application range into sites without temperature control.

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".

The monitor ports tap off 1% (18 - 22dB) of the line signal. The monitor port from transmitted line signal is denoted "Tx". The monitor port from received line signal is denoted "Rx".



Line Rx	Mon Tx Line	921 Rx	923Tx	925 Rx	927 Tx
Line Tx	Mon Rx Line	921 Tx	923 Rx	925 Tx	927 Rx
Ext Rx	NC	922 Rx	924 Tx	926 Rx	928 Tx
Ext Tx	NC	922 Tx	924 Rx	926 Tx	928 Rx

The port allocation and overlay example is for H-MD-09-921-928-EM-LL. Note column dependent location of Tx and Rx ports.

TECHNICAL SPECIFICATIONS

Parameter	C-temp conditions	I-temp Conditions
Channels H-MD-09-921-928-EM-LL	192.1 to 192.8THz	⇐
H-MD-09-929-936-EM-LL	192.9 to 193.6THz	⇐
H-MD-09-937-944-EM-LL	193.7 to 194.4THz	⇐
H-MD-09-945-952-EM-LL	194.5 to 195.2THz	⇐
H-MD-09-953-960-EM-LL	195.3 to 196.0THz	⇐
Passband Ext-port	1504 -1580nm / 189.7 to 199.33THz excl. ch passband	⇐
Channel spacing	100GHz	⇐
Channel passband	ITU±0.11nm	⇐
Link loss, per channel (A)	Typical 4.3dB Max 4.8dB	Typical 4.5dB Max 5.0dB
Insertion loss, per channel (B)	Typical 2.5dB Max 2.8dB	Typical 2.7dB Max 3.0dB
Link loss, extension port (C)	Typical 1.6dB Max 1.7dB	Typical 1.8dB Max 1.9dB
Insertion loss, extension port (D)	Typical 0.8dB Max 1.0dB	⇐
Insertion loss, monitor	18dB to 22dB	⇐
Isolation, adjacent channel	30dB	⇐
Isolation, non-adjacent channel	Min 40dB	⇐
Ripple, passband	Max 0.5dB	⇐
Directivity	Min 45dB	⇐
Return loss	Min 45dB	⇐
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	84mm	⇐

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-09-921-928-EM-LL	8ch DWDM Mux/Demux 921-928 Ext+Mon LL
H-MD-09-929-936-EM-LL	8ch DWDM Mux/Demux 929-936 Ext+Mon LL
H-MD-09-937-944-EM-LL	8ch DWDM Mux/Demux 937-944 Ext+Mon LL
H-MD-09-945-952-EM-LL	8ch DWDM Mux/Demux 945-952 Ext+Mon LL
H-MD-09-953-960-EM-LL	8ch DWDM Mux/Demux 953-960 Ext+Mon LL

Smartoptics makes no warranties or representations, expressed or implied, of any kind relative to the information or any portion thereof contained in this document or its adaptation or use, and assumes no responsibility or liability of any kind, including, but not limited to, indirect, special, consequential or incidental damages, for any errors or inaccuracies contained in the information or arising from the adaptation or use of the information or any portion thereof. The information in this document is subject to change without notice.

Subject to change without notice.

For more information visit smartoptics.com.