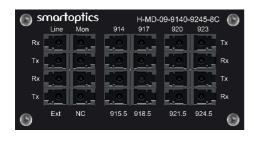
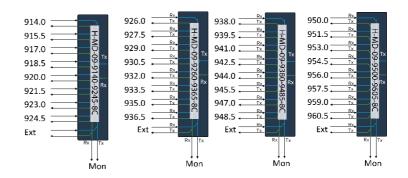
DATASHEET 5.5

# H-MD-09-xxxx-yyyy-8C

8-channel 800G 16QAM DWDM Mux/Demux with Extension and Monitor ports





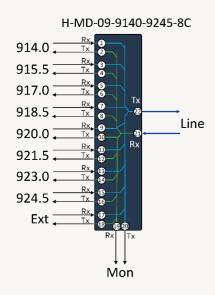
#### **OVERVIEW**

The H-MD-09-xxxx-yyy-8C filters are a range of low-loss, passive 8-channel DWDM protocol transparent Mux/Demux units. The channel passbands are wide enough to support all protocols up to and including 800Gbps 16QAM wavelengths. They operate with 150GHz spacing and have a low-loss Extension port, covering 1520 – 1620nm so that additional channels can be seamlessly added to increase capacity.

The H-MD-09-xxxx-yyyy-8C 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.

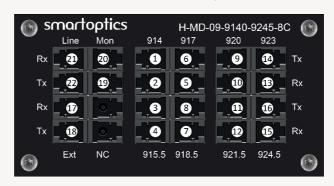
The H-MD-09-xxxx-yyyy-8C filters support the industrial temperature (I-temp) range of -40°C to +85°C (-40°F to +185°F) which gives an extended application range into sites without temperature control. The table with optical parameters below lists values at C-temp and I-temp conditions.

### 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".



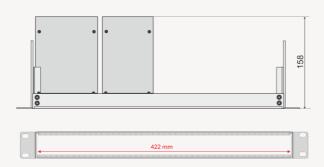
The port allocation and overlay example is for H-MD-09-92140-9245-8C. Note row dependent location of Tx and Rx ports. This is due to the usage of duplex LC connectors.

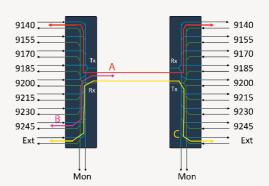
DATASHEET 5.5

## **TECHNICAL SPECIFICATIONS**

Parameter	C-temp Conditions	I-temp conditions <sup>1)</sup>
Channels H-MD-09-9140-9245-8C	191.4 to 192.45 THz	<= (same as C-temp)
H-MD-09-9260-9365-8C	192.6 to 193.65 THz	←
H-MD-09-9380-9485-8C	193.8 to 194.85 THz	←
H-MD-09-9500-9605-8C	195.0 to 196.05 THz	←
Channel spacing	150GHz	<
Channel passband -1dB	≥ 75.0GHz	<
Channel passband -3dB	≥ 130.0GHz	<=
Passband Ext-port	1520 -1620nm, excl. ch passband	<=
Link loss, per channel (A)	≤ <b>4.6dB</b>	≤ 5.2dB
Insertion loss, per channel (B)	≤ 3.0dB	≤ 3.5dB
Insertion loss, extension port	≤ 2.0dB	≤ 2.3dB
Link loss, extension port (C)	≤ 4.0dB	≤ 4.6dB
Insertion loss, monitor	18-22dB without including the mux, demux or passband loss	<b>⇐</b>
Isolation, adjacent channel	≥ 18dB	←
Isolation, non-adjacent channel	≥ 35dB	←
Ripple, passband	$\leq 0.5 dB$	←
Directivity	≥ 55dB	<
Return loss	≥ 45dB	<
Max power handling	Max 500mW	<
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	84mm	<=

The I-temp column only shows values that differ from C-temp conditions.





## **ORDER INFORMATION**

The H-MD-09-xxxx-yyyy-8C is available in 4 different versions depending on desired channel plan. The table below shows the part numbers and a short description.

Part number	Description
H-MD-09-9140-9245-8C	8ch DWDM 800G Mux/Demux, E+M 9140-9245
H-MD-09-9260-9365-8C	8ch DWDM 800G Mux/Demux, E+M 9260-9365
H-MD-09-9380-9485-8C	8ch DWDM 800G Mux/Demux, E+M 9380-9485
H-MD-09-9500-9605-8C	8ch DWDM 800G Mux/Demux, E+M 9500-9605

