

8 Channel Mux/ DeMux Module MDM-15

The MDM-15 is multi-channel WDM Multiplexer or Demultiplexer based on dielectric thin-film filter technology. The module is designed to add or drop 8 channels with ITU grid spacing of 100, 200 or 400GHz. Channels can be dropped with high adjacent channel isolation and all channels are subject to low insertion loss. The MDM-15 can also be configured with an additional band splitting filter to enable device cascading in DWDM systems.

Features

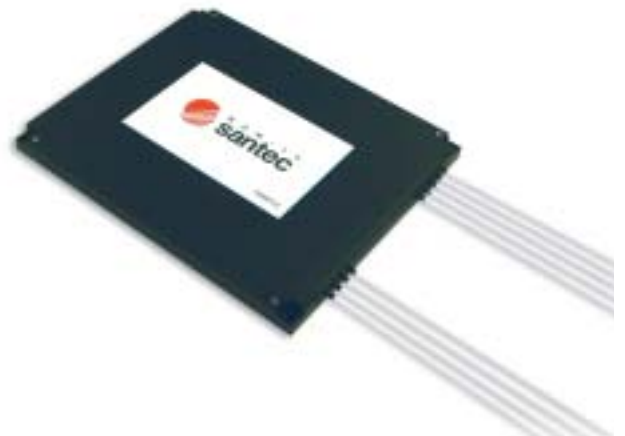
- ▶ Low loss, low PDL
- ▶ High channel isolation
- ▶ Upgradable configuration suitable for scalable system
- ▶ Compact design
- ▶ High reliability (Telcordia GR-1221 qualified)

Applications

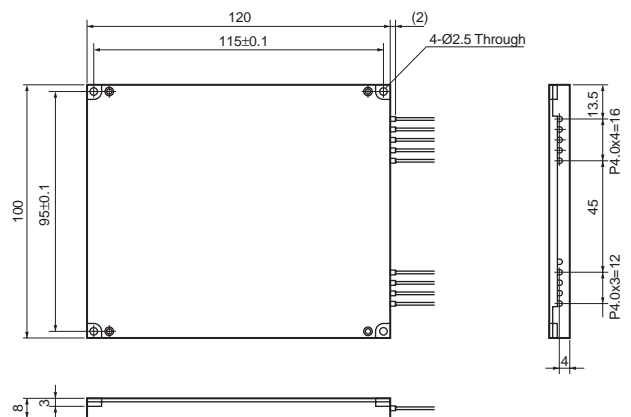
- ▶ Wavelength Mux / Demux
- ▶ Optical Add Drop Multiplexer (OADM)

Model Variations

In Mux and Demux configurations the filter specifications can be tailored to the end-users performance and cost requirements. The "Upgraded" MDM-15 has a common input and output port enabling an express channel for channels which are not to be dropped. Alternatively, the terminated MDM-15 (without express port) realizes lower insertion loss for each channel.



Dimensions



■ 100GHz 8 Channel Mux / DeMux Module

Parameter	Units	Mux	DeMux
Wavelength Range	nm	1520 - 1610	
Channel Spacing	GHz	100	
Number of Channels		8	
Passband	nm	± 0.11	
Flatness	dB	≤ 0.3	
Insertion Loss	dB	≤ 2.8	≤ 3.1
Adjacent Isolation	dB	≥ 12	≥ 25
Non -Adjacent Isolation	dB	-	≥ 40
Thermal Stability (Wavelength)	nm/°C	≤ 0.001	
Directivity	dB	≥ 55	
Return Loss	dB	≥ 50	
Polarization Dependent Loss (PDL)	dB	≤ 0.15	
Polarization Mode Dispersion (PMD)	ps	≤ 0.1	
Max Optical Power	dBm	≤ 23	
Operating Temperature	°C	-5 to +70	
Storage Temperature	°C	-40 to +85	

■ 200, 400 GHz 8 Channel Mux / DeMux Module

Parameter	Units	Mux	DeMux
Wavelength Range	nm	1520 - 1610	
Channel Spacing	GHz	200 / 400	
Number of Channels		8	
Passband	nm	0.20 / 0.25	
Flatness	dB	≤ 0.3	
Insertion Loss	dB	≤ 2.8	≤ 3.1
Adjacent Isolation	dB	≥ 13	≥ 30 / 25
Non -Adjacent Isolation	dB	-	≥ 40
Thermal Stability (Wavelength)	nm/°C	≤ 0.001	
Directivity	dB	≥ 55	
Return Loss	dB	≥ 50	
Polarization Dependent Loss (PDL)	dB	≤ 0.15	
Polarization Mode Dispersion (PMD)	ps	≤ 0.1	
Max Optical Power	dBm	≤ 23	
Operating Temperature	°C	-5 to +70	
Storage Temperature	°C	-40 to +85	

*1 All parameters are specified over operating temperature range.

*2 Insertion loss per filter includes Ripple and PDL, without connectors.

*3 Please contact Santec to discuss specific performance requirements.

■ Ordering Code

MDM-15 - **A** - **B** - **C** - **D** - **E** / **F**

F: MDM / Channel 1 wavelength
(ex.) 1552.5 --> 1552.500

E: Connector Polish : 0 : None / S : SPC / A : Angled PC (8 deg)

D: Connector Type : 00 : None / SC : SC / LC : LC / MU : MU / MJ : MUJ / FC : FC

C: Fiber Length : 10 : 1.0 m : 20 : 2.0 m

B: Filter Type : 10A0 : 100GHz Add / 10D0 : 100GHz Drop / 20A0 : 200GHz Add /
20D0 : 200GHz Drop / 20DW : 200GHz Drop / 40A0 : 400GHz Add /
40D0 : 400GHz Drop / 00W0 : Wide Filter / 00WS : Wide, Special

A: Number of Channels : 7 : 7ch / 8 : 8ch

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