

# 8 Channel Mux/ DeMux Module

#### **MDM-15**

## **Product Overview**

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 400 GHz. 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
- · Telcordia GR-1221 qualified
- · RoHS compliant



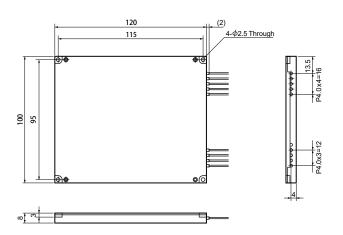
#### **Applications**

- 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** Unit [mm]



### 100 GHz 8 Channel Mux / DeMux Module

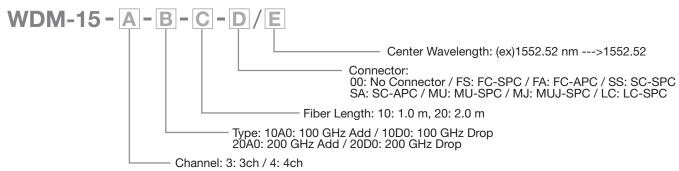
Parameter	Unit	Mux	DeMux
Wavelength Range	nm	1520-1610	
Channel Spacing	GHz	100	
Number of Channels	dB	8	
Passband	nm	0.11	
Flatness	dB	≦0.5	
Insertion Loss	dB	≦2.8	≦3.1
Adjacent Isolation	dB	≧12	≧25
Non -Adjacent Isolation	dB	-	≧40
Directivity	dB	≧45	
Return Loss	dB	≧45	
Polarization Dependent Loss (PDL)	dB	≦0.2	
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 GHz 8 Channel Mux / DeMux Module

Parameter	Unit	Mux	DeMux
Wavelength Range	nm	1520-1610	
Channel Spacing	GHz	200	
Number of Channels	dB	8	
Passband	nm	0.20	
Flatness	dB	≦0.5	
Insertion Loss	dB	≦2.8	≦3.1
Adjacent Isolation	dB	≧13	≧25
Non -Adjacent Isolation	dB	-	≧40
Directivity	dB	≧45	
Return Loss	dB	≧45	
Polarization Dependent Loss (PDL)	dB	≦0.2	
Polarization Mode Dispersion (PMD)	ps	≦0.1	
Max Optical Power	dBm	≦23	
Operating Temperature	℃	-5 to +70	
Storage Temperature	℃	-40 to +85	

<sup>\*1</sup> All parameters are specified over operating temperature range.

# **Ordering Code**





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<sup>\*2</sup> Insertion loss per filter includes Ripple and PDL, without connectors.

<sup>\*3</sup> Please contact Santec to discuss specific performance requirements.