

Polarization Maintaining 1x2 CWDM Filter



Description

A Polarization Maintaining 1×2 CWDM Filter is a three-port wavelength-selective device designed for polarization-maintaining fiber systems. Typically based on thin-film filter (TFF) technology, it separates or combines optical signals according to wavelength while preserving the polarization state of the input light. When multiple wavelengths enter the common (COM) port, the designated CWDM channel is transmitted through the PASS port, while the remaining wavelengths are directed to the REFLECT port. It can also operate in reverse to combine different wavelengths into a single polarization-maintaining fiber.

Features

- Low Insertion Loss
- Wide Pass Band
- High Channel Isolation
- High Stability and Reliability

Applications

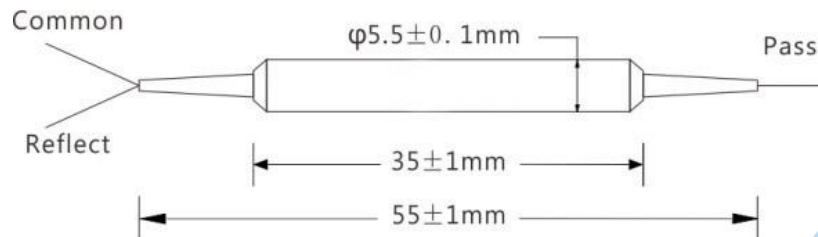
- Line Monitoring
- WDM Network
- Telecommunication
- Cellular Application

Specifications

Parameter	Unit	Value
Common Channel Wavelength	nm	ITU Grid
Pass Channel Wavelength	nm	1270, 1290..., 1610 etc.
Wavelength Accuracy	nm	±0.05
Channel Spacing	nm	20
Channel Passband	nm	≥13 (@-0.5dB)
Pass Channel Insertion Loss	dB	≤0.8
Pass Channel Isolation	dB	≥30
Reflect Channel Insertion Loss	dB	≤0.5
Reflect Channel Isolation	dB	≥13
Extinction Ratio	dB	≥20
Directivity	dB	≥50
Return Loss	dB	≥45
Max Optical Power (CW)	W	0.3
Fiber Type	-	PM1550
Working Axis	-	Both Axis
Package Dimensions	mm	Φ5.5 x L35
Operating Temperature	°C	-5 to +70
Storage Temperature	°C	-20 to +85

Notes: Tested at 25 °C. Data exclude connectors. Adding connectors will increase insertion loss by approximately 0.3 dB, reduce return loss by 5 dB, and decrease extinction ratio by 2 dB. The fiber slow axis is aligned to the key by default.

Product Dimensions



Ordering Information

 nm	 nm	 W			 m	 μm	
Channel Spacing	Pass Channel Wavelength	Max Optical Power (CW)	Working Axis	Fiber Type	Pigtail Length	Pigtail Diameter	Connector
20nm	1270nm	0.3W	Both Axis	PM1550	0.5m	250 μm Bare Fiber	None
	1290nm				1.0m	900 μm Loose Tube	LC/UPC
	1310nm				1.5m		LC/APC
	Custom				2.0m		SC/UPC
							SC/APC
							FC/UPC
							FC/APC
							ST/UPC
							ST/APC