Polarization Maintaining Filter WDM

Description

Polarization Maintaining Filter WDM is a thin film filter-based wavelength division multiplexer designed to combine or separate optical signals at different wavelengths while maintaining the polarization state in PM fiber systems. It provides low insertion loss, high isolation, high extinction ratio, and stable performance, making it suitable for PM fiber lasers, optical amplifiers, fiber sensing, coherent communication, and polarization-sensitive test applications.

Features

Low Insertion Loss
Compact Structure
High Channel Isolation
High Stability and Reliability

Applications

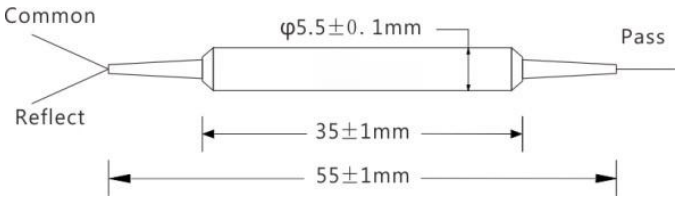
Fiber Laser
Fiber Optic Amplifier
Fiber Optic Sensing
Underwater Communication

Specifications

Parameter	Unit	Value					
Pass Channel Wavelength Range	nm	900~916	1020~1080	1520~1580	1520~1580	1520~1580	1950~2050
Pass Channel Insertion Loss (Max.)	dB	0.8	0.8	0.8	0.8	0.8	1.2
Pass Channel Isolation (Min.)	dB	25	25	25	25	25	25
Reflect Channel Wavelength Range	nm	840~868	960~990	960~990	1010~1090	1270~1350	1520~1580
Reflect Channel Insertion Loss (Max.)	dB	0.6	0.5	0.5	0.5	0.5	1.0
Reflect Channel Isolation (Min.)	dB	12	12	12	12	12	12
Extinction Ratio (Min.)	dB	18	20				
Return Loss (Min.)	dB	50					
Max Optical Power (CW)	W	0.3/1/5/10					
Fiber Type	-	PM780	PM980	PM980 & PM1550	PM980 & PM1550	PM1300 & PM1550	PM1550 & PM1950
Working Axis	-	Both Axis					
Tensile Load	N	5					
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. Pass Channel Wavelength and Reflect Channel Wavelength can be interchanged while all other specifications remain unchanged.

Product Dimensions



Ordering Information

□nm	□W	□	□	□m	□μm	□
Center Wavelength	**Max Optical Power (CW)**	**Working Axis**	**Fiber Type**	**Pigtail Length**	**Pigtail Diameter**	**Connector**
850nm Pass/905nm Reflect	0.3W	Both Axis	PM780	0.5m	250μm Bare Fiber	None
905nm Pass/850nm Reflect	1W		PM980	1.0m	900μm Loose Tube	LC/UPC
980nm Pass/1030nm Reflect	5W		PM980 & PM1550	1.5m		LC/APC
1030nm Pass/980nm Reflect	10W		PM1300 & PM1550	2.0m		SC/UPC
980nm Pass/1064nm Reflect			PM1550 & PM1950			SC/APC
1064nm Pass/980nm Reflect						FC/UPC
980nm Pass/1550nm Reflect						FC/APC
1550nm Pass/980nm Reflect						ST/UPC
1064nm Pass/1550nm Reflect						ST/APC
1550nm Pass/1064nm Reflect						
1310nm Pass/1550nm Reflect						
1550nm Pass/1310nm Reflect						
1550nm Pass/2000nm Reflect						
2000nm Pass/1550nm Reflect						