

Single Mode Filter WDM



Description

Filter WDM is a passive optical device based on thin film filter (TFF) technology, designed to combine or separate optical signals at different wavelengths with low insertion loss and high isolation. Compared with traditional fused WDM devices, Filter WDM offers better wavelength stability, superior channel isolation, and improved temperature performance, making it ideal for high-performance optical communication and fiber laser applications.

Features

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

Applications

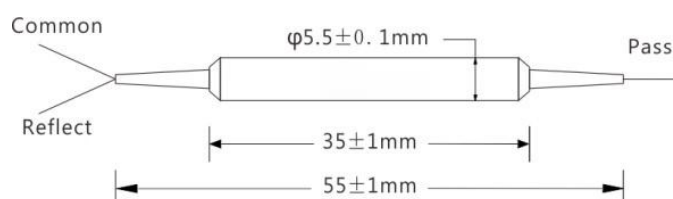
- Fiber Laser
- Fiber Optic Amplifier
- Fiber Optic Sensing
- Underwater Communication

Specifications

Parameter	Unit	Value							
Pass Channel Wavelength Range	nm	900~916	1020~1080	1520~1580	1520~1580	1500~1600	1540~1620	1600~1670	1950~2050
Pass Channel Insertion Loss	dB	≤0.8	≤0.8	≤0.8	≤0.8	≤0.6	≤0.6	≤0.8	≤0.8
Pass Channel Isolation	dB	≥25	≥25	≥25	≥25	≥30	≥30	≥30	≥25
Reflect Channel Wavelength Range	nm	840~868	960~990	960~990	1010~1090	1260~1360	1260~1500	1260~1580	1520~1580
Reflect Channel Insertion Loss	dB	≤0.6	≤0.5	≤0.5	≤0.5	≤0.4	≤0.4	≤0.6	≤0.8
Reflect Channel Isolation	dB	≥12	≥12	≥12	≥12	≥15	≥15	≥15	≥12
Polarization Dependent Loss	dB	≤0.1							
Return Loss	dB	≥50							
Max Optical Power (CW)	W	0.3/1/5/10							
Fiber Type	-	780-HP	Hi1060	Hi1060 & SMF-28e	Hi1060 & SMF-28e	SMF-28e	SMF-28e	SMF-28e	SMF-28e & SM1950
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. Pass Channel Wavelength and Reflect Channel Wavelength can be interchanged while all other specifications remain unchanged.

Product Dimensions



Ordering Information

					
Center Wavelength	Max Optical Power (CW)	Fiber Type	Pigtail Length	Pigtail Diameter	Connector
850nm Pass/905nm Reflect	0.3W	780-HP	0.5m	250μm Bare Fiber	None
905nm Pass/850nm Reflect	1W	Hi1060	1.0m	900μm Loose Tube	LC/UPC
980nm Pass/1030nm Reflect	5W	Hi1060 & SMF-28e	1.5m		LC/APC
1030nm Pass/980nm Reflect	10W	SMF-28e	2.0m		SC/UPC
980nm Pass/1064nm Reflect		SMF-28e & SM1950			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					
1310 & 1490nm Pass/1550nm Reflect					
1550nm Pass/1310 & 1490nm Reflect					
1490nm Pass/1310 & 1550nm Reflect					
1625nm Pass/1310 & 1550nm Reflect					
1310 & 1550nm Pass/1625nm Reflect					
1550nm Pass/2000nm Reflect					
2000nm Pass/1550nm Reflect					