

C-Band Red/Blue Single Mode FWDM



Description

The C-Band Red/Blue Single Mode Filter WDM, also known as a C-Band Red/Blue FWDM, is a thin film filter-based wavelength division multiplexer designed to separate or combine the red and blue wavelength bands within the C-band optical spectrum. In optical communication systems, the blue band refers to the shorter-wavelength side of the C-band, while the red band refers to the longer-wavelength side. This device enables reliable band splitting or combining through single mode fiber with low insertion loss, high channel isolation, and stable optical performance, making it suitable for DWDM networks, EDFA systems, C-band transmission links, optical monitoring, and test applications.

Features

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

Applications

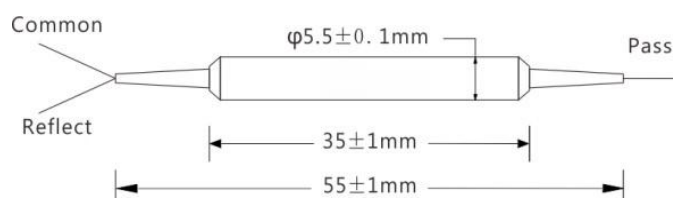
- Fiber Laser
- Fiber Optic Amplifier
- Fiber Optic Sensing
- Underwater Communication

Specifications

Parameter	Unit	Value	
Pass Channel Wavelength Range	nm	1547~1561 (Blue)	1530~1543.2 (Red)
Pass Channel Insertion Loss	dB	≤0.8	
Pass Channel Isolation	dB	≥25	
Reflect Channel Wavelength Range	nm	1530~1543.2 (Red)	1547~1561 (Blue)
Reflect Channel Insertion Loss	dB	≤0.6	
Reflect Channel Isolation	dB	≥12	
Polarization Dependent Loss	dB	≤0.1	
Return Loss	dB	≥50	
Max Optical Power (CW)	W	0.3	
Fiber Type	-	SMF-28e	
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
Red Pass/Blue Reflect	0.3W	SMF-28e	0.5m	250μm Bare Fiber	None
Blue Pass/Red Reflect			1.0m	900μm Loose Tube	LC/UPC
			1.5m		LC/APC
			2.0m		SC/UPC
					SC/APC
					FC/UPC
					FC/APC
					ST/UPC
					ST/APC