

Single Mode 1x2 DWDM Filter



Description

A 1×2 DWDM Filter is a three-port Dense Wavelength Division Multiplexing (DWDM) optical device, typically consisting of one common port and two branch ports. It is used to separate or combine optical signals according to specified ITU DWDM wavelength channels. Simply put, it can extract a single DWDM channel from a multi-wavelength optical signal, or add a DWDM channel to an existing main optical path while allowing other wavelengths to continue through the other port.

Features

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

Applications

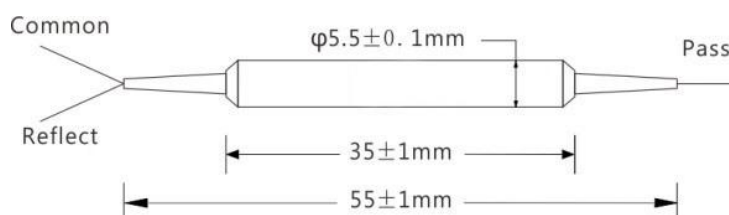
- Wavelength Division System
- Fiber Optic Amplifier
- Fiber Optic Communication

Specifications

Parameter	Unit	Value		
Common Channel Wavelength	nm	ITU Grid		
Pass Channel Wavelength	nm	C01/C02/C03/Custom		
Wavelength Accuracy	nm	±0.05	±0.05	±0.1
Channel Spacing	GHz	50	100	200
Channel Passband	nm	≥0.20 (@-1dB), ≥0.28 (@-3dB)	≥0.22 (@-0.5dB)	≥0.5 (@-0.5dB)
Pass Channel Insertion Loss	dB	≤0.8	≤1.0	≤0.9
Pass Channel Isolation	dB	≥30		
Reflect Channel Insertion Loss	dB	≤0.4	≤0.6	≤0.5
Reflect Channel Isolation	dB	≥13		
Polarization Dependent Loss	dB	≤0.2	≤0.1	
Return Loss	dB	≥45		
Max Optical Power (CW)	W	0.3/1/2/5/10		
Fiber Type	-	SMF-28e		
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.

Product Dimensions



Ordering Information

 GHz	 nm	 W		 m	 μm	
Channel Spacing	Pass Channel Wavelength	Max Optical Power (CW)	Fiber Type	Pigtail Length	Pigtail Diameter	Connector
50GHz	C01	0.3W	SMF-28e	0.5m	250μm Bare Fiber	None
100GHz	C02	1W		1.0m	900μm Loose Tube	LC/UPC
200GHz	C03	2W		1.5m		LC/APC
	Custom	5W		2.0m		SC/UPC
		10W				SC/APC
						FC/UPC
						FC/APC
						ST/UPC
						ST/APC