



Tap Isolator/Filter Wavelength Division Multiplexer Hybrid (TIWDM Series)

Rev 11B

Description

The TIWDM series combines filter WDM, tap coupler and isolator into a compact package. This device is ideal for fiber amplifier application to provide input signal power monitoring, pump/signal multiplexing and isolation functions at the same time. It offers the advantages of cost saving, space saving, and performance improvement.

Key Features

- Low Insertion Loss
- High Isolation
- Compact Size

Applications

- Raman Amplifier
- System Monitoring

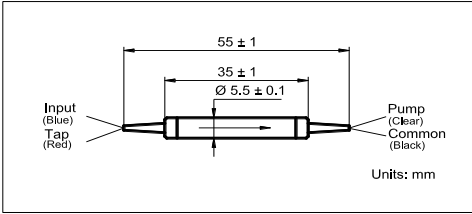
Specifications

Parameter		Unit	Value	
Stage		-	Single Stage	Dual Stage
Pass Band	Signal Wavelength Range	nm	1530 - 1580	
1550 Signal	Tap Ratio @ Input → Tap	%	1 ± 0.5, 5 ± 1, 10 ± 2	
980 Pump	Max. Signal IL @ Input → Common, Tap	1% dB	1.0	1.2
		5% dB	1.2	1.4
		10% dB	1.5	1.7
1480 Pump	Max. Signal IL @ Input → Common, Tap	1% dB	1.0	1.2
		5% dB	1.1	1.3
		10% dB	1.3	1.5
	Min. Signal Isolation (1550 ± 10 nm for Single Stage, 1550 ± 30 nm for Dual Stage, at 23 °C)	dB	30	40
	Max. Polarization Dependent Loss	dB	0.1	0.2
	Max. Polarization Mode Dispersion	ps	0.25 ¹	0.05
Reflection Band	Wavelength Range		980 Pump	1480 Pump
			nm	nm
	Max. Insertion Loss @ Pump → Common	dB	0.5	
	Max. Polarization Dependent Loss	dB	0.05	
Min. Return Loss		dB	50	
Min. Directivity (Pump to Tap/Input) @ Pump Wavelength		dB	45	
Max. Optical Power (Continuous Wave)		mW	300	
Max. Tensile Load		N	5	
Fiber Type for 1480 Pump		-	SMF-28 Fiber for all Ports	
Fiber Type for 980 Pump		-	SMF-28 Fiber for Input & Tap Ports	
		-	HI 1060 Fiber for Common & Pump Ports	
Operating Temperature		°C	- 5 to + 70	
Storage Temperature		°C	- 40 to + 85	

¹Low PMD version is available. PMD < 0.05 ps.

²IL is 0.3 dB higher, RL is 5 dB lower for each connector added.

Package Dimensions



Ordering Information

TIWDM-①-②-③③-④-⑤-⑥-⑦

①: Pump Type	②: Stage Type	③③: Tap Ratio	④: PMD
98 - 980 nm Pump	1 - Single Stage	01 - 1%	1 - 0.05 ps Max
48 - 1480 nm Pump	2 - Dual Stage	05 - 5%	2 - Refer to Above Spec
		10 - 10%	
		SS - Specify	
⑤: Connector Type	⑥: Fiber Jacket	⑦: Fiber Length	
1 - FC/UPC	B - 250 µm Bare Fiber	1 - 1.0 m	
2 - FC/APC	L - 900 µm Loose Tube		
3 - SC/UPC	S - Specify		
4 - SC/APC			
N - None			
S - Specify			