



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

Rev 11

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, as well as performance improvement.

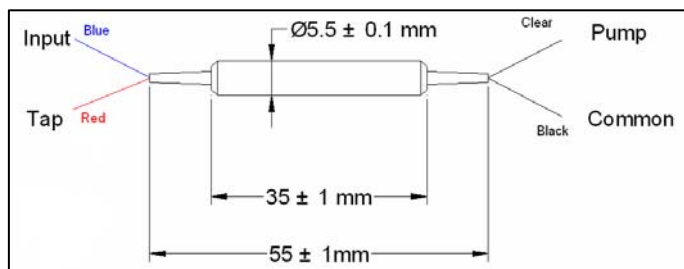
Specifications

Parameter	Unit	Single Stage	Dual Stage
Pass Band	Signal Wavelength Range	nm	1530 - 1580
980 Pump	Max. IL @ Input→Common, Tap 1%, 2%, 3%		1.0
		4%, 5%	1.2
		10%	1.5
1480 Pump	Max. IL @ Input→Common, Tap 1%, 2%, 3%		1.0
		4%, 5%	1.1
		10%	1.3
	Min. Signal Isolation (1550 ± 10 nm for single stage, 1550 ± 30 nm for dual stage, at 23 °C)	dB	30
	Max. Polarization Dependent Loss	dB	0.1
	Max. Polarization Mode Dispersion	ps	0.25 ¹
Reflection Band	Wavelength Range	980 Pump	950-1010
		1480 Pump	1450-1490
	Max. Insertion Loss	dB	0.5
	Typ. Insertion Loss	dB	0.3
	Max. Polarization Dependent Loss	dB	0.05
1550 Signal	Input→Tap		
	Max. Insertion Loss @ Input→Tap for 10%	dB	11.5
	Tap Ratio	%	1 ± 0.5, 2 ± 0.4, 3 ± 0.6, 4 ± 0.8, 5 ± 1
Min. Return Loss	dB	50	
Max. Optical Power (Continuous Wave)	mW	300	
Max. Tensile Load	N	5	
Fiber Type		SMF-28 or HI 1060 fiber	
Operating Temperature	°C	-5 to +70	
Storage Temperature	°C	-40 to +85	

¹Low PMD version is available. PMD < 0.05 ps

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

Package Dimensions



Ordering Information

TIWDM-①-②-③-④-⑤-⑥-⑦

①: Pump Type	③: Tap Ratio	④: PMD	⑤: Connector Type	⑥: Fiber Jacket
98 - 980 nm pump	1 - 1% ± 0.5	1 - 0.05 ps max	1 - FC/UPC	B - 250 μm bare fiber
48 - 1480 nm pump	2 - 2% ± 0.4	2 - Refer to above spec	2 - FC/APC	L - 900 μm loose tube
	3 - 3% ± 0.6		3 - SC/UPC	S - Specify
②: Stage Type	4 - 4% ± 0.8		4 - SC/APC	
1 - Single stage	5 - 5% ± 1.0		N - None	⑦: Fiber Length
2 - Dual stage	S - Specify		S - Specify	1 - 1.0 m
				S - Specify

Remark: SMF-28 fiber is used for 1550 nm and 1480 nm and HI 1060 fiber is used for Pump and Common channel.