



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

Rev 11 B

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.

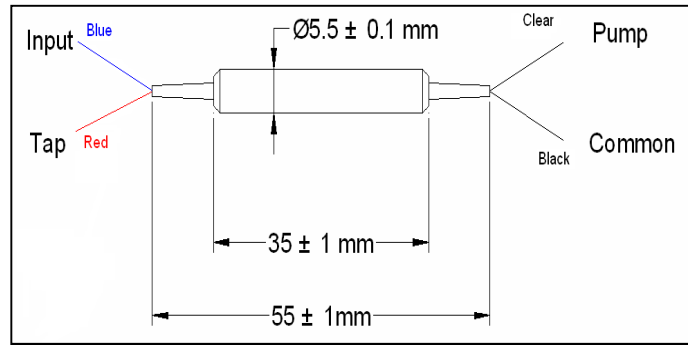
Specifications

Parameter	Unit	Single Stage	Dual Stage
Pass Band	Signal Wavelength Range	1530 - 1580	
1550 Signal	Tap Ratio @ Input → Tap	1 ± 0.5, 5 ± 1, 10 ± 2	
980 Pump	Max. Signal IL @ Input → Common, Tap 1%	1.0	1.2
	5%	1.2	1.4
	10%	1.5	1.7
1480 Pump	Max. Signal IL @ Input → Common, Tap 1%	1.0	1.2
	5%	1.1	1.3
	10%	1.3	1.5
	Min. Signal Isolation (1550 ± 10 nm for single stage, 1550 ± 30 nm for dual stage, at 23 °C)	30	40
	Max. Polarization Dependent Loss	0.1	0.2
	Max. Polarization Mode Dispersion	0.25 ¹	0.05
Reflection Band	Wavelength Range 980 Pump	950 - 1010	
	1480 Pump	1450 - 1490	
	Max. Insertion Loss @ Pump → Common	0.5	
	Max. Polarization Dependent Loss	0.05	
Min. Return Loss		50	
Min. Directivity (Pump to Tap / Input) @ Pump Wavelength		45	
Max. Optical Power (Continuous Wave)		300	
Max. Tensile Load		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	

¹ Low PMD version is available. PMD < 0.05 ps

*IL 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

98 - 980 nm pump

48 - 1480 nm pump

②: Stage Type

1 - Single stage

2 - Dual stage

③③: Tap Ratio

01 - 1%

05 - 5%

10 - 10%

SS - Specify

④: PMD

1 - 0.05 ps max

2 - Refer to above spec

⑤: Connector Type

1 - FC/UPC

2 - FC/APC

3 - SC/UPC

4 - SC/APC

N - None

S - Specify

⑥: Fiber Type

B - 250 μm bare fiber

L - 900 μm loose tube

S - Specify

⑦: Fiber Length

1 - 1.0 m