

Polarization Maintaining Tap Isolator (PMTI Series)

Rev 11B

Description

The Polarization Maintaining Tap Isolator combines a tap coupler and polarization sensitive isolator into a single compact package. It has high extinction ratio and very low insertion loss. The PM Tap Isolator is ideal for fiber amplifier and fiber optic system where signal monitoring is required.

Key Features

- High Extinction Ratio
- Low Insertion Loss
- High Isolation

Applications

- Fiber Sensors
- Fiber Lasers
- Fiber Amplifiers

Specifications

Parameter	Unit	Value	
		Single Stage	Dual Stage
Stage		Single Stage	Dual Stage
Center Wavelength (λ_c)	nm	1064	
Max. Excess Loss @ 23 °C	dB	1.8	2.8
Tap Ratio (Tap IL = $-10 \cdot \log(\text{Tap Ratio}) + \text{E.L}$)	%	1 ± 0.2, 2 ± 0.4, 4 ± 0.8, 5 ± 1.0, 10 ± 2.0	
Typ. Peak Isolation	dB	40	55
³ Min. Isolation, λ_c , 23 °C, all polarization states, ≤ 30 mW	dB	35	45
Min. Extinction Ratio	dB	20	
Min. Return Loss	dB	50	
Directivity	dB	50	
Max. Optical Power (Continuous Wave)	mW	300	
Max. Tensile Load	N	5	
Operating Temperature	°C	- 5 to + 50	
Storage Temperature	°C	- 40 to + 85	
Fiber Type	-	PM 980 Panda Fiber or HI 1060 Fiber for tap port PM Panda Fiber for input & output ports	

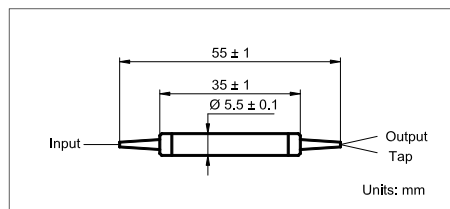
¹Output IL = $-10 \cdot \log(1 - \text{Tap Ratio}) + \text{E.L}$, E.L will be 0.2 dB higher if tap port is HI 1060 Fiber.

²IL is 0.5 dB higher, RL is 5 dB lower, and ER is 2 dB lower for each connector added. Connector key is aligned to slow axis.

³The optical path is aligned to slow axis and fast axis is blocked.

⁴The isolation is related to the input power. Please inform us when you need high isolation and operate above 30 mW.

Package Dimensions



Ordering Information

PMTI-①-②②-③③-④-⑤-⑥-⑦-⑧

①: Stage	②②: Wavelength	③③: Coupling Ratio	
1 - Single Stage	06 - 1064 nm	01 - 1/99 04 - 4/96 10 - 10/90	
2 - Dual Stage	SS - Specify	02 - 2/98 05 - 5/95 SS - Specify	

④: Connector Type

1 - FC/UPC

2 - FC/APC

3 - SC/UPC

4 - SC/APC

N - None

S - Specify

⑤: Fiber Jacket

B - 250 μ m Panda Fiber

L - 900 μ m Loose Tube

S - Specify

⑥: Fiber Type For Tap Port

H - HI 1060 Fiber

P - PM 980 Panda Fiber

S - Specify

⑦: Fiber Length

Q - 0.75 m

S - Specify

⑧: Working Axis

F - Fast Axis Blocked