

Integrated Fiber Tap Power Monitor

(Directional and Unidirectional)

(patent pending)

Product Description

The Tap Optical Power Monitor is a hybrid fiber optical passive component that integrates a thin-film tap of flat spectral response with a high sensitivity PIN photodiode for power monitoring applications. The Power Monitor minimizes component assembly costs and module footprint while increasing module design efficiency by facilitating fiber Management.

The Power Monitor combines the functionality of an optical coupler and a photodiode while delivering low insertion loss and low dark current with high temperature stability over a wide wavelength range. Our directional version works well from 1260nm to 1620nm band.



Performance Specifications

TM Series Power Monitor	Min	Typical	Max	Unit
Wavelength	1260		1620	nm
Tap Ratio	1	3	5	%
Insertion Loss ¹	0.5	0.7	0.80	dB
Responsivity ²	8	25	45	mA/W
Input Power	-45		27	dBm
WDL		0.02		dB/nm
PDL ³		0.03	0.05	dB
Polarization extinction ratio ⁴	18	23		dB
Tensile load		5		N
Return Loss	45			dB
Dark Current at 23°C		0.4	1.0	nA
Directivity ⁵		None or >25		dB
Capacitance		0.7	0.9	pF
Reverse Voltage		5	20	V
Rise/Fall Time		0.3		ns
Cut-Off Frequency		2		GHz
Operating Temperature	-5		75	°C
Storage Temperature	-40		85	°C
Reliability	Telcordia 1209 and 1221			
Package Dimension	∅ 6.0 x L 18			mm

Notes:

1. Insertion Loss excluding connectors.
2. The net responsivity is defined as the ratio of the PD current output and optical power measured at output fiber
3. Single Mode Fiber version only.
4. PM Fiber version only.
5. Directivity defines the responsivity contrast between the case that light power comes from input fiber port and the case that light power comes from output fiber port. From 1260 to 1620nm.

Features

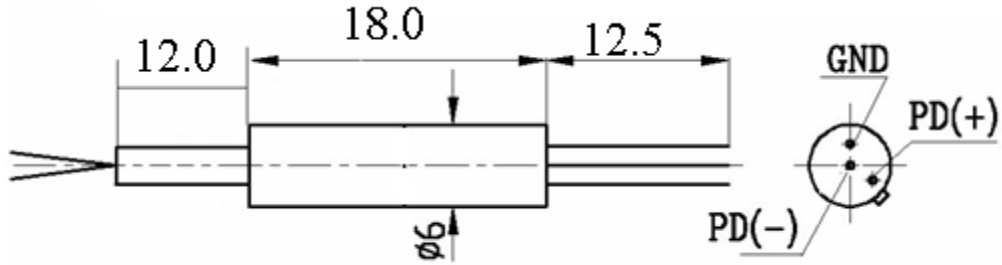
- Integrated
- Low Loss Device
- Custom Tap Ratios Available
- Compact Design

Applications

- Channel Monitoring
- Power Monitoring in Optical Interface Modules
- Gain Monitoring for Amplifier
- DWDM System Monitoring

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Mechanical Footprint Dimensions (Unit:mm)



Standard Package

Ordering Information

TOPM-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Tap Ratio	Wavelength	Directivity	Package	Fiber Type	Fiber Length	Connector	
	1% =11 3% =33 5% =55 Special =00	1310 = 3 1550 = 5 13/15 =8 1260-1620=9 Special = 0	No = 1 Yes = 2	Standard =1 Special = 0	SMF-28 = 1 Panda 400=4 Panda 250=5 Special=0	Bare fiber =1 900um Loose Tube=3 Special = 0	0.25m= 1 0.5m = 2 1.0 m= 3 Special =0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC = 7 Special = 0