

Single Channel Integrated Fiber Tap Power Monitor

(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

Parameters		Specification		Unit	
Operating Wavelength Range		1260~1360	1510~1610	nm	
Through	Insertion Loss (@ λ_{Op} , T_{Op} , All SOP, exclude connector)	2%	≤ 0.4	dB	
		5%	≤ 0.6		
		10%	≤ 0.9		
Polarization Dependent Loss		≤ 0.05		dB	
Return loss (exclude connector)		≥ 45		dB	
Tapped Monitoring	Responsivity (relative to nominal power at input port)	2%	10~23	14~25	mA/W
		5%	26~59	35~65	
		10%	52~110	70~120	
Responsivity Temperature Dependence (@1310nm or 1550nm)		≤ 0.3		dB	
Responsivity Polarization Dependence		≤ 0.1		dB	
PD	PD Dark Current (@ 70°C, -5V bias)	0.5G Bandwidth	≤ 10		nA
		2.0G Bandwidth	≤ 2.5		nA
	Reverse Voltage		≤ 20		V
	Forward Current		≤ 10		mA
Conditions	Input Optical Power	2%	≤ 21		dBm
		5%	≤ 16		
		10%	≤ 12		
Operating Temperature Range (<85%RH, Non-condensing)		-5 to +70		°C	
Storage Temperature Range (<85%RH, Non-condensing)		-40 to +85		°C	
Fiber Type		SMF-28			

Features

- Easy for Integrating
- Low Loss Device
- Custom Tap Ratios Available
- Compact Design
- Low dark current
- Hermetically sealed

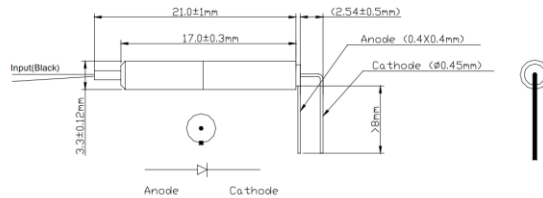
Applications

- DWDM Channel Monitoring
- Power Monitoring in Optical Interface Modules
- Gain Monitoring for Amplifier
- EDFAs and Raman amplifiers
- Compact Design

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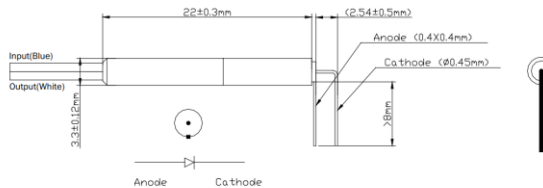
Mechanical Footprint Dimensions (Unit:mm)

Bare fiber:



Note:
Anode is connected to the metal housing.

Loose tube:



Note:
Anode is connected to the metal housing.

Ordering Information

TOPM-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	<input type="checkbox"/>	<input type="checkbox"/>
	Tap Ratio	Wavelength	Bandwidth	Package		Fiber Length	Connector	
	2% =02 5% =05 10% =10 Special =00	1310 = 3 1550 = 5 13/15 =8 Special = 0	0.5G = 05 2.0G = 20	Bare fiber =1 Loose tube = 2 Special = 3		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	