

Single Channel Unidirectional Miniature Optical Power Monitor (UOPM)

Features/Benefits

- Unidirectional monitoring
- Compact coaxial package
- Excellent responsivity linearity
- Low insertion loss
- Cost effective
- High isolation

Applications

- EDFA
- Raman amplifier
- DWDM mux/demux
- OADM
- Protection switch
- OXC
- Other monitoring applications



Lightwaves2020's Unidirectional Miniature Optical Power Monitor (UOPM) integrates the functionalities of a tap coupler, an isolator and a PD. It is the smallest device of its type on the market. Its integrated design reduces the number of parts to handle, minimizes fiber splicing, improves fiber routing and saves board space.

This UOPM offers excellent performance, including high isolation, low dark current, low insertion loss, low wavelength dependent loss, low polarization dependent loss and low polarization dependent responsivity. As with all Lightwaves2020 products, this UOPM conforms to Telcordia requirements.

Lightwaves2020's UOPM simplifies the design of optical amplifier and WDM systems. It offers a more compact and cost-effective solution for unidirectional power monitoring in optical networks than discrete components.

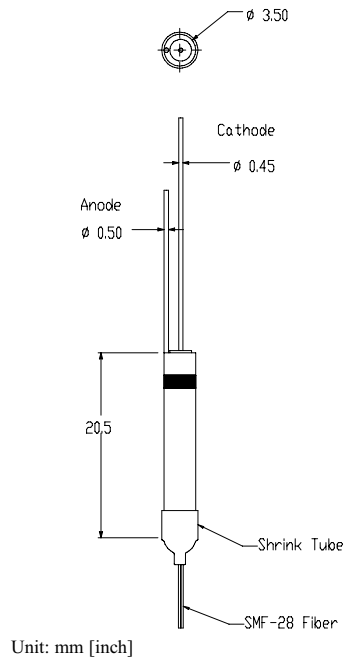
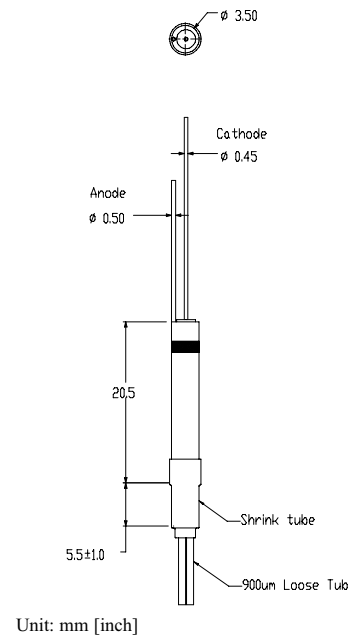
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General Specifications

Parameters	Unit	Min.	Typ.	Max.	
*Operating Wavelength Range	C-band	nm	1525	1550	1565
	L-band	nm	1570	1593	1615
	C- & L-band	nm	1525	1570	1615
Isolation (Directivity) from Output to PD	dB	25	-	-	
Polarization Dependent Loss	dB	-	0.03	0.1	
Wavelength Dependent Loss	dB	-	0.05	0.15	
Polarization Mode Dispersion	ps	-	-	0.1	
Optical Return Loss	dB	45	-	-	
Responsivity Flatness (with respect to band center)	dB	-	-	± 0.3	
Polarization Dependent Responsivity	dB	-	0.03	0.1	
Linearity	%	-	-	± 5	
Reverse Voltage	V	-	5	20	
Forward Current	mA	-	-	10	
Dark Current @ 23°C, - 5V	nA	-	0.5	1.0	
High Frequency Response Limit	GHz	0.6	-	-	
Operating Temperature	°C	-5	-	70	
Storage Temperature	°C	-40	-	85	
Fiber Pigtail	-	SMF-28, 250µm bare fiber or 900µm loose tube			
Dimension	mm	Φ 3.5 × 20.5 (bare fiber) Φ 3.5 × 26.0 (900µm loose tube)			

* Dual band (1310 nm and 1550 nm) is available upon request

Dimensions



Optical Performance vs Splitting Ratio

Tap Ratio (%)	Max. Insertion Loss (dB)				Min. Responsivity (µA/mW)	Max. Input Optical Power (mW)
	C or L band		C+L band			
	Premium	A Grade	Premium	A Grade		
1	0.3	0.4	0.4	0.5	7	500
3	0.4	0.5	0.5	0.6	21	300
5	0.5	0.6	0.6	0.7	35	300

Note: Insertion loss and return loss values are without connectors.

Ordering Information

U O P M **T** **0 0 0**

Tapping Ratio
 C= C-band
 L= L-band
 E= C- & L-band

Tapping Ratio
 1= 1 %
 3= 3 %
 5= 5 %

Grade
 P= Premium
 A= A grade

Fiber Type
 0= SMF-28

Buffer Type
 0= 250µm bare fiber
 1= 900µm loose tube

Pigtail Length
 10= 1.0 m
 15= 1.5 m (not avail. with connector)

Connector
 0= None
 1= FC/UPC
 2= FC/APC
 3= SC/UPC
 4= SC/APC
 5= LC/UPC
 6= MU/UPC

This product information is subject to change without notice.