

In-line Optical Power Monitor

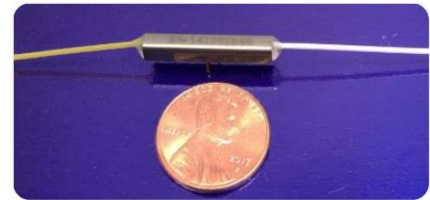
(Integral Optical Tap and PIN Photodiode)

(US Patent No: 9535218)

Product Description

Agiltron's ILPM Series Fiber Optic Tap Power Monitors are used for in line power measurement and precision power controlling. It is based on a patent pending design that taps light without bending and grooving fiber, or using lens and optical coating. This novel power monitor provides industrial exceptional performance in ultra-low loss, low polarization and wavelength dependence, high directivity, variable tap ratios, as well as low cost and high reliability.

The continuous fiber device is particularly suited for adapting to various types of fiber and for high power handling. This power monitor has a miniature ceramic package houses offering a stable optical tap and PIN photodiode as well as GR1209 and GR1201 compliance qualification.



Performance Specifications

Tap Power Monitor	Min	Typical	Max	Unit
Operation Wavelength		300 -2000		nm
Responsivity ^[1]	5	20	60	mA/W
Polarization Stability ^[2]	0.1	0.2	0.25	dB
Insertion Loss	0.2	0.6	0.8	dB
Polarization Dependent Loss ^[3]			0.01	dB
Extinction Ratio ^[4]	23			dB
Directivity ^[5]	25	28	40	dB
Return Loss		55		dB
Max Optical Power		500		mW
Dark Current@-5V, 23C			1	nA
3dB bandwidth@-5V bias	10	200	2000	MHz
Capacitance			10	pF
Max. Forward Current		10		mA
Max. Reverse Current		5		mA
Max. Reverse Voltage		10		V
Operating Temperature	-5		75	°C
Storage Temperature	-40		85	°C
Package Dimension		22x3x3.5		mm

Notes:

1. It is tap ratio depended.
2. PDR, responsivity variation with polarization, only for polarization independent version.
3. PDL for polarization independent version.
4. ER for polarization maintaining version.
5. The responsivity ratio between forward and backward directed light.

Features

- Low insertion loss
- Ultra low return loss
- Flat broadband response
- Low PDL
- High directivity
- High reliability

Applications

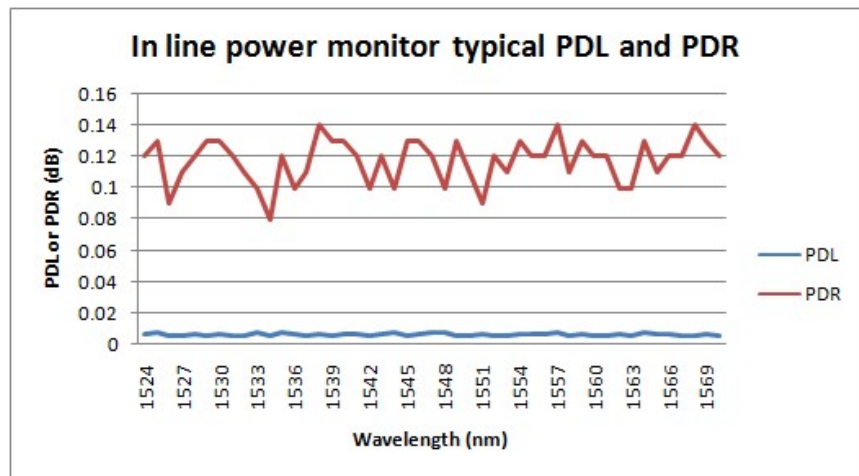
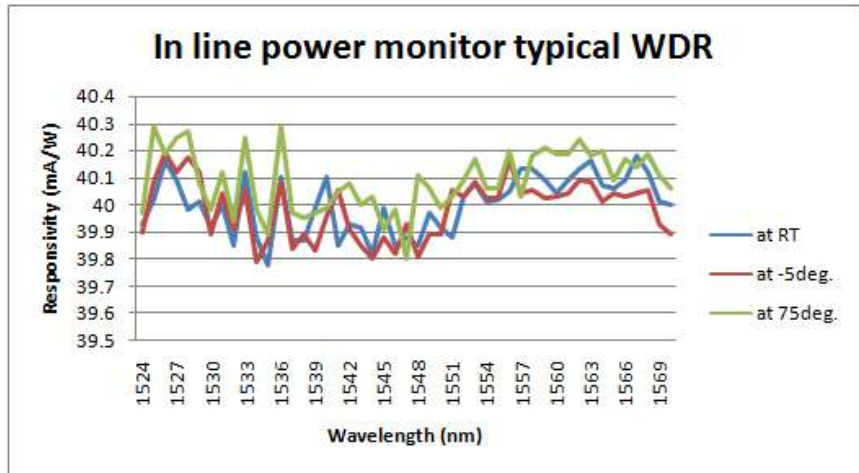
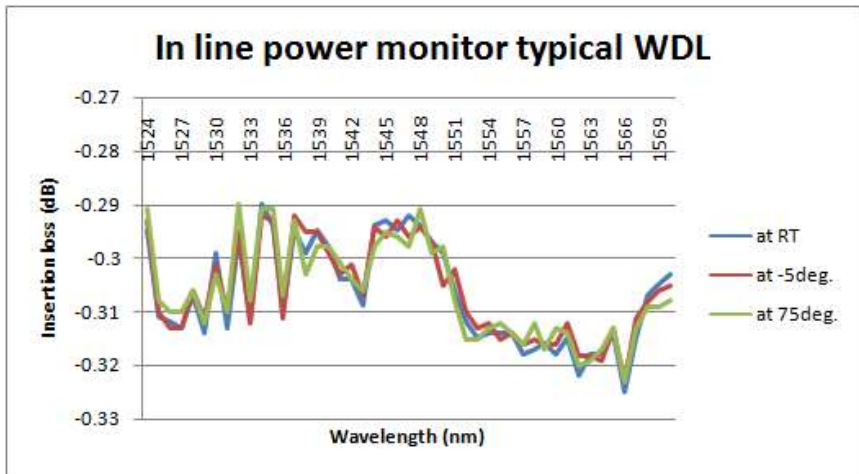
- ASE light sources
- EDFA gain modules
- Raman amplifiers
- Optical channel monitoring
- Optical fiber test instruments



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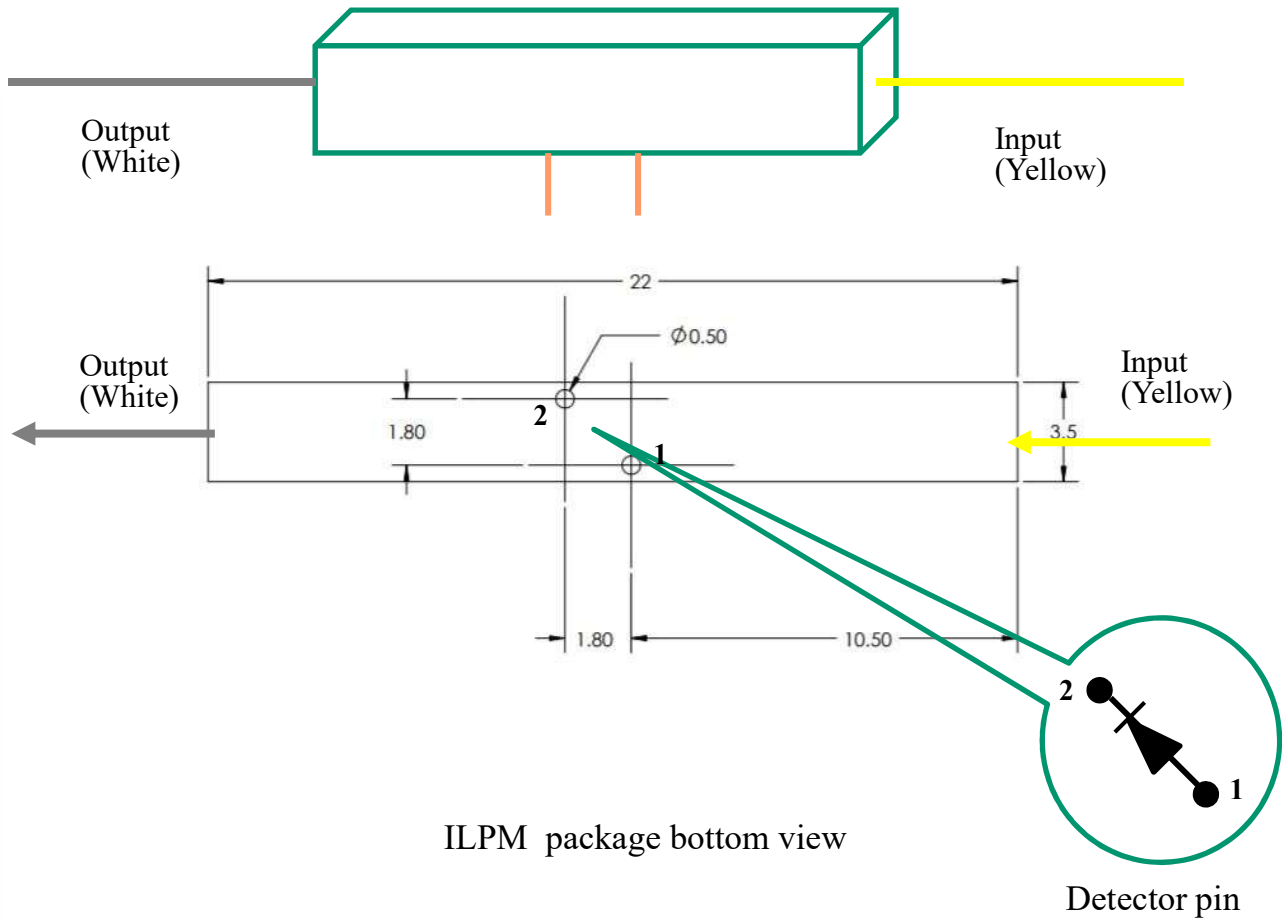
Typical Performance with SMF-28e Fiber



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Mechanical Footprint Dimensions (mm)



ILPM package bottom view

Detector pin

Ordering Information

ILPM-	Tap ratio	Wavelength	Directivity	Package Type	Fiber Type	Fiber Length	Connector
	1%=01	350=3	standard=1	Standard=1	SMF28e=1	Bare fiber=1	None=1
	3%=03	530=5		Special=0	PM250=2	900um tube=3	FC/PC=2
	5%=05	850=8	Special=0		Hi1060=3	Special=0	FC/APC=3
		1060=6			PM980=4		SC/PC=4
	Special=00	1310=3			MM50/125=5		SC/APC=5
		1550=5			MM62.5/125=6		ST/PC=6
		2000=2			SM850=8		LC/PC=7
		Special=0			Special=0		Special=0

