Polarimeter

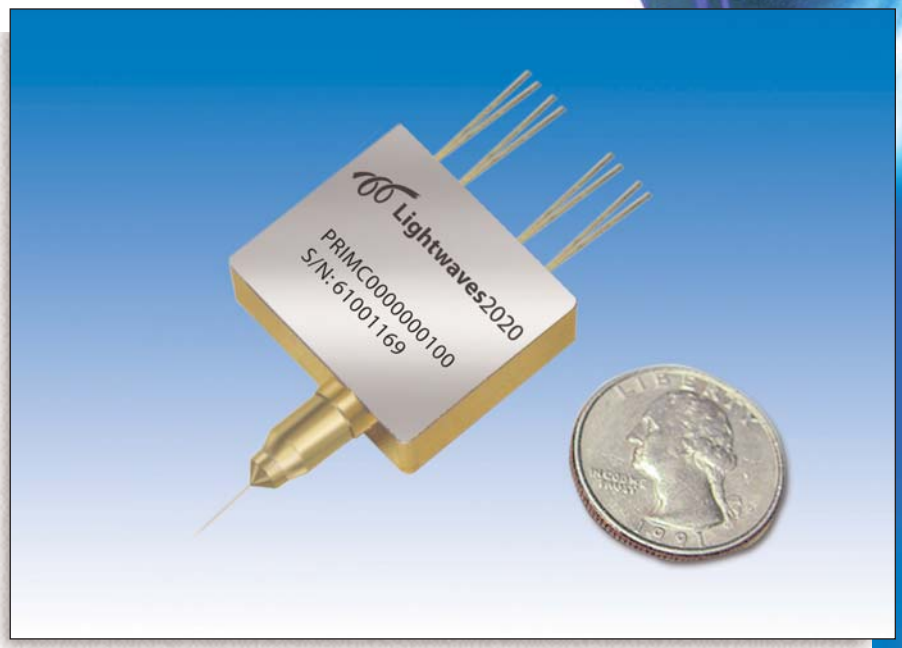
Features / Benefits

- Compact size
- No moving parts
- Fast response
- Low excess loss
- Easy mounting onto PCB board

Applications

- SOP and DOP measurement and monitoring
- Polarization tracking and stabilization
- Polarization division multiplexing
- PMD compensation
- Fiber sensing

RoHS Compliant

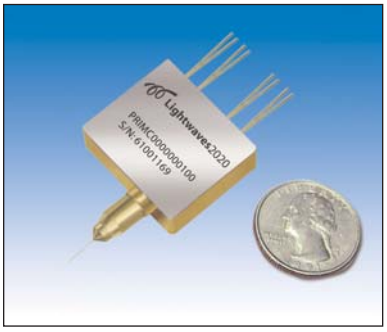


Lightwaves2020's polarimeter is a small form factor device that outputs four photocurrents that can be used to calculate both the state of polarization (SOP) and the degree of polarization (DOP).

Covering the operating wavelength range from 1525 to 1570nm, the polarimeter offers excellent optical performance, including low dark current, low insertion loss, low wavelength dependence, and wide dynamic optical power range. This device is ideal for integration into polarization measuring and stabilizing modules.

Lightwaves2020's polarimeter is designed for the use in polarization division multiplexing, polarization measurement, PMD compensation, and fiber sensing systems.

Lightwaves2020

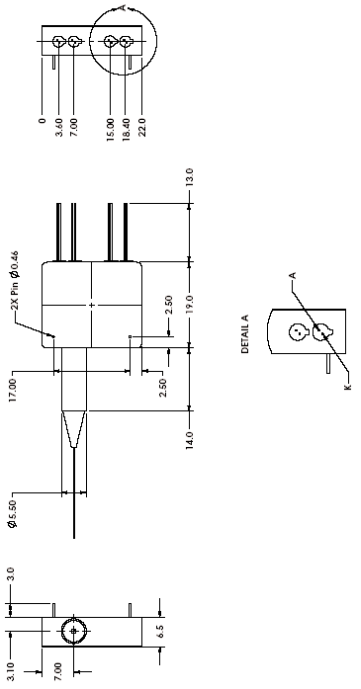


Specifications*

Parameters	Unit	Specifications
Operating Wavelength Range	nm	1520 to 1570
Operating Optical Power Range	dBm	-50 to +10
PD Responsivity***	A/W	> 0.9
Wavelength Dependent Responsivity**	%	±2
PD Linearity	%	± 5
PD Dark Current @ -5V & 25°C	nA	< 1.0
Bandwidth @ RL=50Ω	GHz	> 0.6
Total Capacitance @ f=1MHz	pF	< 8
Optical Return Loss	dB	> 50
Maximum Optical Power Handling	mW	30
Maximum PD Forward Current	mA	10
Maximum PD Reverse Voltage	V	20

*: The specification is defined without electric circuit.
**: With Lightwaves2020's electric circuit and calibration by using Agilent 8509C Polarization analyzer, the accuracy of ± 0.02 for SOP and ± 2% for DOP can be achieved.
***: PD responsivity excludes losses from splitting optic elements.

Dimensions



Unit= mm

Environmental & Physical

Item	Range
Operating Temperature	0 to 70°C
Storage Temperature	-40 to 85°C
Relative Humidity (non-condensing)	10 to 90%RH
Fiber Pigtail	SMF-28, 250mm bare fiber or 900mm loose tube
Dimension (H x W x D, mm)	19 x 22 x 6.5 (excluding the boot)
Electrical PINs	as shown in Fig.

Ordering Information

P	R	I	M	C	0	0	0	0	0	0	0			

Wavelength
C= 1520 to 1570nm

Fiber Type
0= SMF-28

Fiber Length
1= 1.0m
5= 1.5m

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

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.

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