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High Linearity Fiber Coupled InGaAs PIN Photodiode

(900 to 1630nm)

Product Description

The High Linearity Fiber Coupled InGaAs PIN Photodiode is a component that directly integrates a fiber with a high sensitivity photodiode for signal detection without TIAC. The response is analog to the input signal with high linearity. Our design minimizes component assembly costs and module footprint while increasing stability over a wide temperature and wavelength ranges.

Associated sensor electronic amplifier is also available.



Performance Specifications

Parameter	Min	Typical	Max	Unit
Wavelength	900		1620	nm
Dark Current (23°C)		0.2	1	nA
Responsivity ²	0.8	0.9		A/W
Input Power (5V bias)	-70		10	dBm
Response Frequency Bandwidth	1	2.5	10	GHz
PDL ³		0.03	0.05	dB
Tensile load		5		N
Return Loss	45			dB
Dark Current		0.4	1.0	nA
Directivity ⁵		None or >25		dB
Capacitance		0.7	0.9	pF
Operating Voltage		-5	-15	V
Operating Temperature	-40		80	°C
Storage Temperature	-40		85	°C
Reliability	Telcordia 1209 and 1221			

Notes:

1. Insertion Loss excluding connectors.
2. 5V bias. 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.

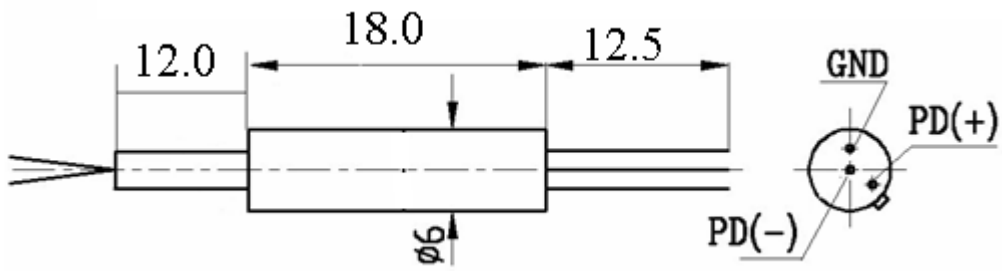
Features

- Low Cost
- High Linearity
- All Fiber Type
- Compact Design

Applications

- Channel Monitoring
- Power Monitoring in Optical Interface Modules
- Gain Monitoring for Amplifier
- Instruments

Mechanical Footprint Dimensions (Unit:mm)



Standard Package for Infrared Band. For other wavelength band, size may vary due to special detector configurations.

*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

Ordering Information

Prefix	Wavelength	L	Bandwidth	Package	Fiber Type	Fiber Cover	Fiber Length	Connector
FCPD-	900-1620 = 18 Special = 0		2GHz = 2 3GHz = 3 5GHz = 5 8GHz = 8 10GHz = 9	Linear = L Special = 0	9/125 = 1 50/125 = 2 62.5/125 = 3 PM1550 = 4 PM1310 = 5 PM1060 = 6 PM850 = 7	900um tube = 3 Bare fiber = 1 Special = 0	0.25m = 1 0.5m = 2 1.0 m = 3 1.5 m = 5 Special = 0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC = 7 Special = 0