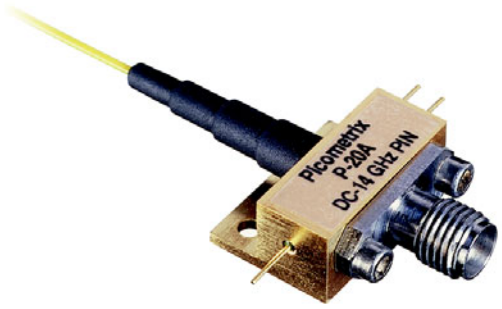
P-20A

PICOMETRIX®

Product Bulletin (Preliminary) • February 2002

- 14 GHz PIN detector module
- Front-end for receivers up to 12.5 Gb/s
- High responsivity, 1.0 A/W
- 15 ps risetime
- Compact 3-pin package

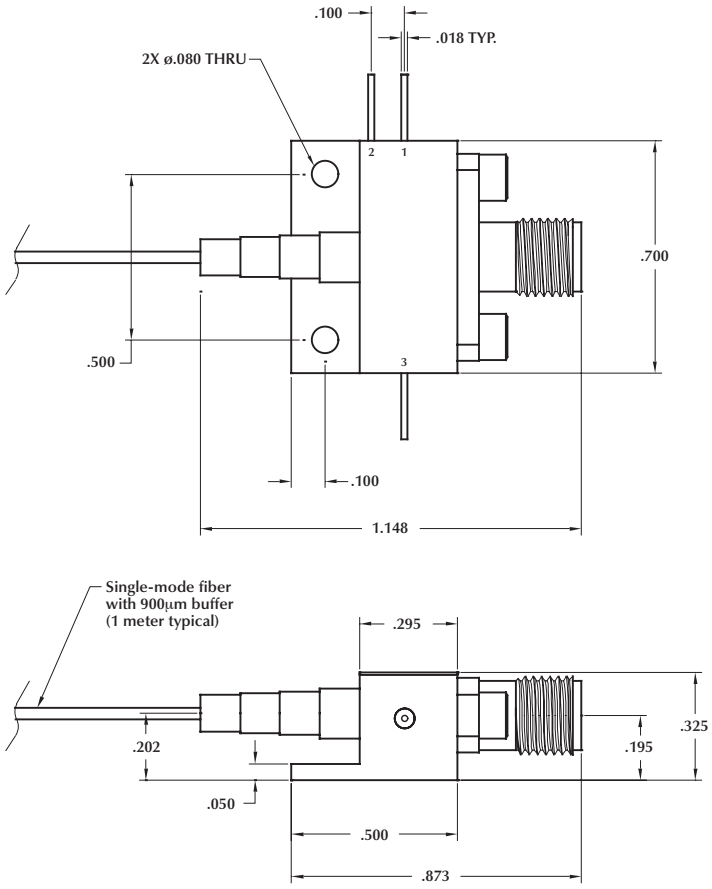


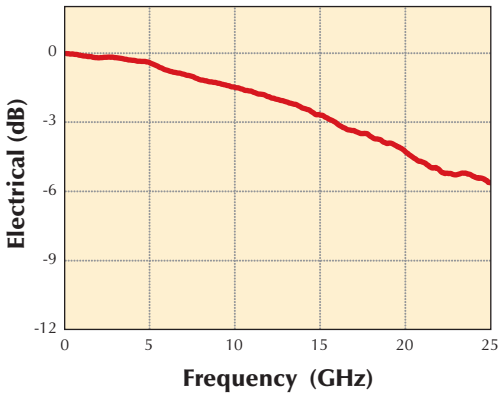
The **P-20A** is an ultrafast, InGaAs PIN photodetector module ideal for use as an O/E front-end for receivers in applications up to 12.5 Gb/s. The back-illuminated PIN photodiode design optimizes speed and sensitivity for the 1200 nm through 1650 nm wavelength range. The internal Clean-pulse™ design assures low group-delay response necessary for time-domain, digital applications.

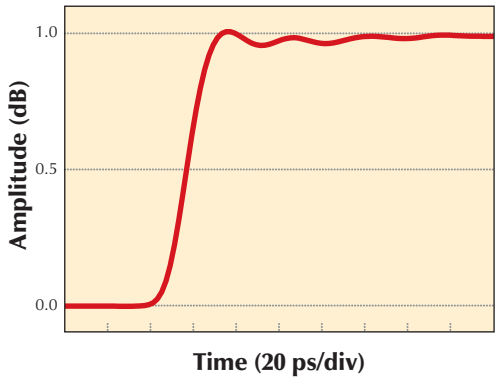
The detector is available in a compact 3-pin package with either an Anritsu-K output connector or an RF feed-through pin for direct soldering to circuit boards. Input via a single-mode fiber is standard. The hermetic module is Telcordia compliant.

Specifications	Minimum	Typical	Maximum	Units
Wavelength range	1200		1650	nm
Bandwidth (-3dB electrical)	12	14		GHz
Low frequency cutoff	DC			kHz
Risetime		15	18	ps
Responsivity @ 1310 nm	0.9	1.0		A/W
Responsivity @ 1550 nm	0.9	1.0		A/W
Optical Return Loss			-37	dB
Output termination		50		Ω
DC Electrical				
Photodiode voltage	+8	+10	+15	V
Mechanical				
Package type		3-pin module with K connector		
Operating temperature	-40		+85	°C
Storage temperature	-40		+85	°C

Product Specifications







Pin	Description
1	V_{PD}
2	GND
3	NC

P-20A Ordering Information

Base model	P-20A
Option format	/Package/Output termination/Fiber connector
Package options	3K or 3NC
Output termination options	Z50
Fiber connector options	FC or SC

Application Notes

Electrostatic discharge (ESD) will cause permanent damage to the product. Please avoid any ESD to the input pins or output connector. Use standard ESD protective equipment when handling this product.

Temperature and fiber restrictions are as follows:
- Lead soldering: 250°C for no more than 10 seconds
- Fiber feed-through tube: 120°C
- Fiber pull force: 10 N
- Fiber bending radius: 1 inch or less

Exceeding these conditions can cause permanent damage to the device.

Quality Vision

As a leader in ultrafast optical receivers, Picometrix is committed to providing the highest quality ultrafast products on the market. This quality vision commits us to continually improving our product designs and manufacturing processes, in order to ensure the highest level of customer satisfaction. The company maintains a stringent quality control program to ensure that all products meet or surpass customer requirements.

PICOMETRIX®

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PB-P-20A-0202-A