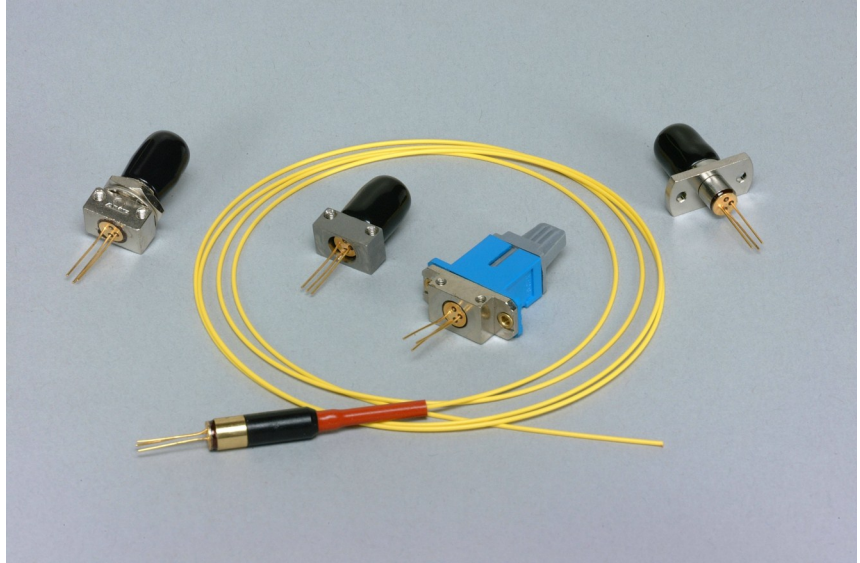


**InGaAs PIN TIA Receivers**

PD-LD Inc. offers low noise, high responsivity InGaAs photo detectors paired with a transimpedance amplifiers (TIA) in convenient fiber coupled packages. These assemblies incorporate a 75 micron diameter active area detector that responds optimally to both 1310 and 1550 nm light sources.

Each module contains a TIA whose bandwidth is ideally suited to the industry standard transmission speed of 1.25GBs. All devices include automatic gain control (AGC), a feature that allows the circuit to operate with high optical input power without becoming saturated. AGC makes possible full dynamic range receivers, lessening the need to use attenuators within the cable plant. These modules are available with either bare or connectorized fiber pigtails or in receptacle style housings suitable for board or panel mounting. These high reliability units are operational over industrial environmental conditions. Devices are available for operation with a 3.3V power supply .



Applications

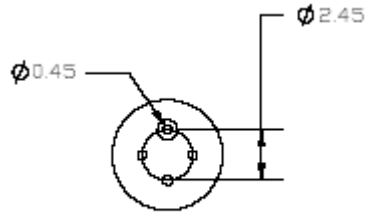
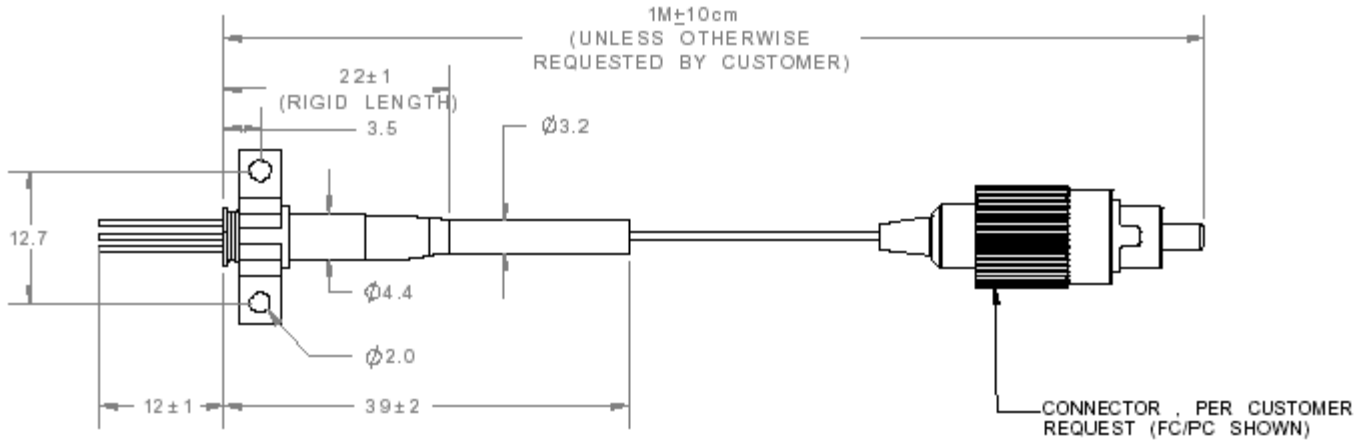
- Networking
- Telecommunications  
SONET  
SDH
- Storage  
Fiber Channel

Features

- IEEE 802.3 Performance
- ITU G.957 Compliant
- -40 to 85°C Operating Range
- Differential Output
- AE version operates with 3.3V

Parameter	Units	Symbol	1.25 GBs		
			Min.	Typ.	Max.
Operating Wavelength	nm	Lambda	1100	1600	
Differential Responsivity (R <sub>load</sub> =100 ohm, P= -24dBm, 10Mbps)	mV/μW	G	9.6	—	32
Rise and Fall Times (20%~80%, P= -24dBm)	psec	t <sub>r,f</sub>	—	300	400
Power Supply	V	V <sub>cc</sub>	3.0	3.0	3.6
Small Signal Bandwidth	MHz	BW	700		
Optical Sensitivity (@1.25GBs, BER=1E-10)	dBm	S			-26
Optical Saturation Power	dBm	P <sub>sat</sub>	--	0	-3
Low Frequency Cut off	kHz	LF			115
Output Resistance (Single Ended)	ohm	R <sub>out</sub>	35	50	65
Operating Current	mA	I <sub>cc</sub>	—	—	25
Storage Temperature	°C		-40	-	100
Operating Temperature	°C		-40	-	85

**PTINAE1.21FAD-A-0-01 3.3V InGaAs PIN w/TIA 1.25 GBs**

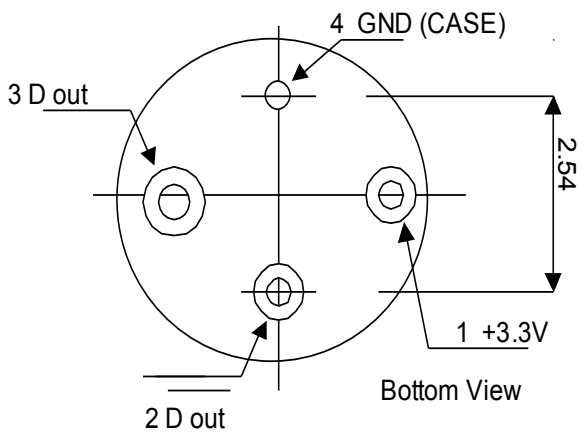


DETAIL

NOTES:

- 1 THESE DEVICES ARE ESD SENSITIVE. ESD PRECAUTIONS ARE ADVISED.
- 2 ALL DEVICES ARE SHIPPED WITH ESD LEAD PROTECTORS AND DUST COVERS.
- 3 ALL DEVICES WILL BE MARKED WITH A PD-LD SERIAL NUMBER.

4 ZINC, DIE CAST  
NICKEL PLATED



PIN Assignment

- 1 Vcc
- 2 Data Out Inverted
- 3 Data Out
- 4 Ground (case)

