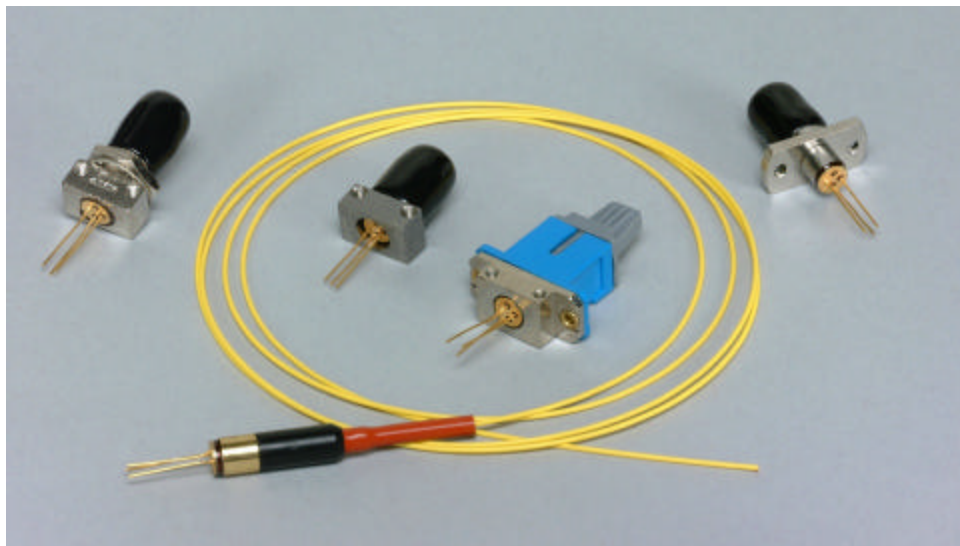


InGaAs PIN TIA Receivers

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. This PIN/Preamp combination delivers superior characteristics making them ideal for both digital and analog systems. Each module contains a TIA whose bandwidth is ideally suited to the industry standard transmission speed of 1.25GBs since they have a bandwidth of 1100MHz. 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 pigtailed or in receptacle style housings suitable for board or panel mounting. These high reliability units are operational over industrial environmental conditions.



Applications

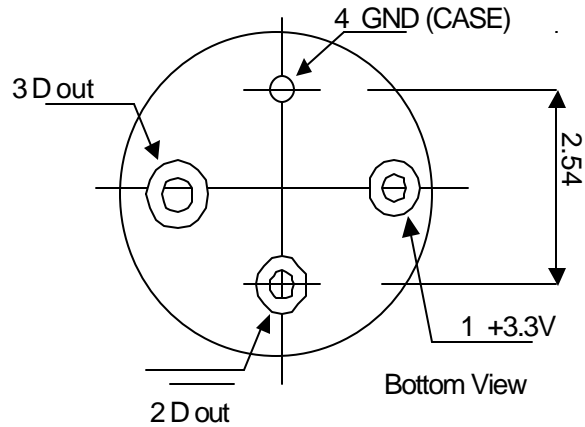
- **Networking**
1000 MB Ethernet
- **Telecommunications**
SONET OC-48
SDH: STM12
- **Storage**
Fiber Channel

Features

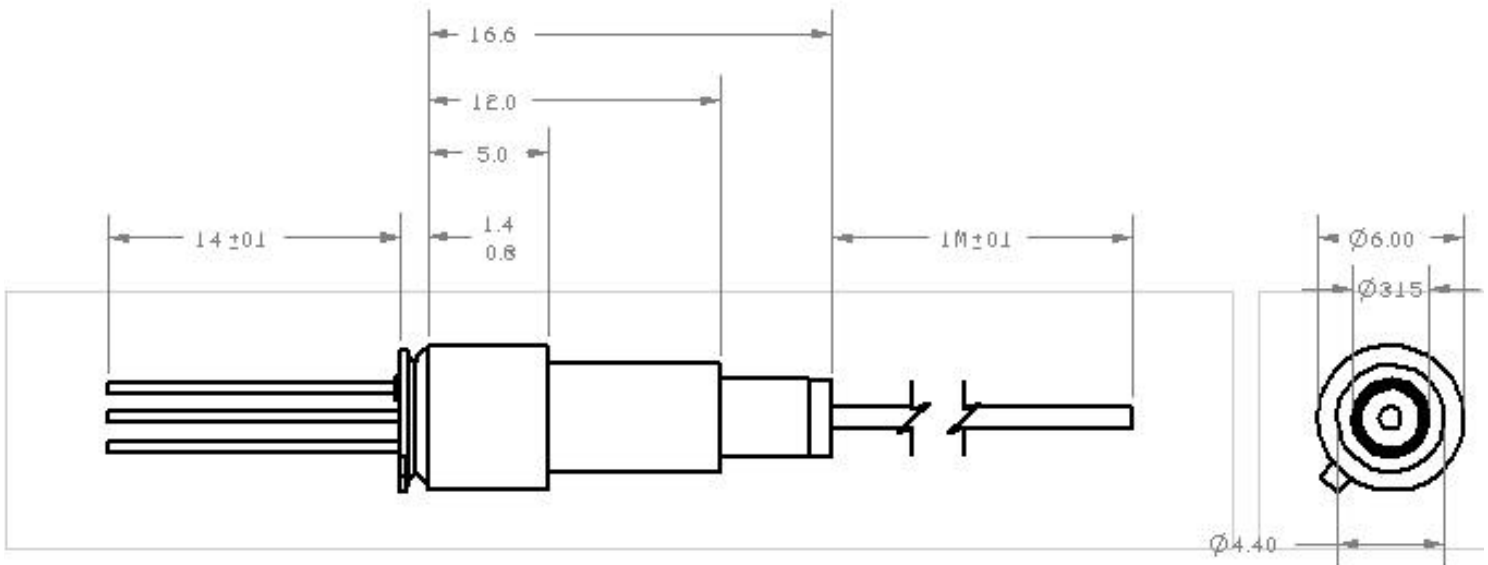
- **IEEE 802.3 Performance**
- **ITU G.957 Compliant**
- **-40 to 85°C Operating Range**
- **Differential Output**
- **Operates with 3.3V Supply**
- **Pigtailed w/9/125 µm Fiber**
- **Available with E2000/APC connector**

Parameter	Units	Symbol	1.25 GBs		
			Min.	Typ.	Max.
Operating Wavelength	nm	Lambda	1100	1600	
Differential Gain (@10 Mbs differential with 30uA p-p signal)	V/mW	G	9.6	21	32
Analog Bandwidth (-3dB)	MHz	BW _e	700	1000	—
Rise and Fall Times	nsec	t _{r,f}	—		0.30
Power Supply	V	V _{cc}	3.0	3.3	3.6
Differential Output Voltage	mV p-p	V _d		275	500
Optical Sensitivity	dBm	S	--	-22	-21
Optical Saturation Power	dBm	P _{sat}	--	0	-3
Output Resistance	ohm	R _{out}	35	50	65
Operating Current	mA	I _{cc}	—	30	40

PTINZ1.251EAD-R-0-01 Fiber Optic InGaAs PIN w/TIA



Mechanical Drawing for Fiber Pigtailed PIN-TIA Assemblies



Pigtailed PIN-TIA

Pigtail: 1m 9/125/900um SMF28 fiber E2000/APC Connector

Mounting Bracket Options:

PC Board Bracket

PTINZ1.2EAD-R-0-01

Panel Mount Bracket

PTINZ1.2EAE-R-0-01

PTINZ1.251EAD-R-0-01 Fiber Optic InGaAs PIN w/TIA

Pigtailed PIN TIA with Board Mount Bracket "D" and "N" Lead Orientation

