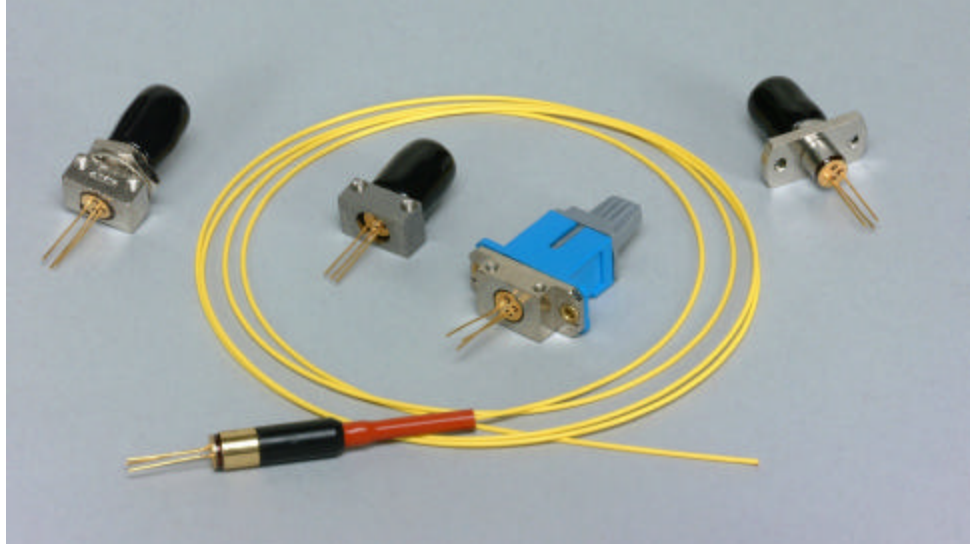


**InGaAs PIN TIA Receivers**

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 industry standard transmission speeds of 150 MHz. 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**  
10/100/1000 MB Ethernet  
FDDI  
ATM
- **Telecommunications**  
SONET OC-3/OC-12/OC-24/OC-48  
SDH: STM1/STM3/STM6/STM12
- **Storage**  
Fiber Channel

Features

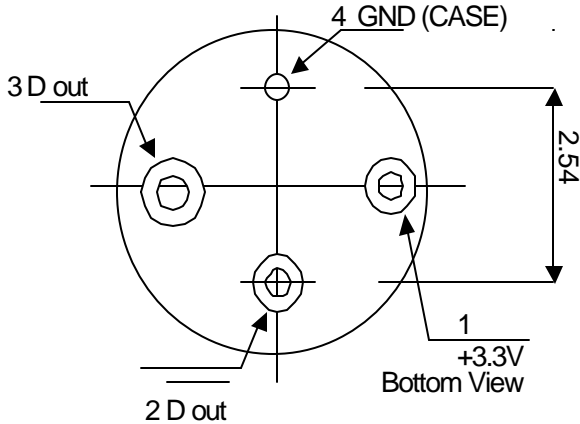
- IEEE 802.3 Performance
- ITU G.957 Compliant
- -40 to 85°C Operating Range
- Differential Output
- Operates with 3.3V
- FC, ST ,SC Receptacle Housing
- Pigtailed w/9/125 μm Fiber

Absolute Maximum Ratings			
Supply Voltage	V <sub>cc</sub>	3.6	Volts
Operating Temperature	T <sub>opr</sub>	-40 to +85	°C
Storage Temperature	T <sub>stg</sub>	-40 to +85	°C

Parameter	Units	Symbol	155 MHz		
			Min.	Typ.	Max.
Operating Wavelength	nm	Lambda	1100	—	1650
Differential Gain at 10MBs Differential at 1310nm	V/mW	G	52	—	70
Analog Bandwidth (-3dB)	MHz	BW <sub>e</sub>	120	140	—
Power Supply	V	V <sub>cc</sub>	3.0	3.3	3.6
Differential Output Voltage	V	V <sub>d</sub>	—	—	1
Optical Sensitivity BER=10Exp-10 at 155MBs	dBm	S	—	-38	-36
Optical Saturation Power	dBm	P <sub>sat</sub>	-3	0	
Output Resistance	ohm	R <sub>out</sub>	—	50	65
Operating Current	mA	I <sub>cc</sub>	—	—	35

InGaAs PIN Photodiode with TIA

**Pinout & Dimensions (mm)**



PIN Assignment

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

**Ordering Information**

PIN TIA Pigtaills		PIN TIA Receptacles	
<b>PTINDXXXFCCB-O-V-MM</b>		<b>PTINDXXXRRRF-O-V</b>	
<b>T= PIN TIA</b>	<b>IN= InGaAs Photodiode</b>	<b>D = "A" for 155MBs &amp; 3.3V</b>	<b>CC = Connector Type</b>
<b>XXX= Bandwidth</b>	<b>RRR = Receptacle</b>	<b>F = Fiber Type</b>	<b>ST = ST</b>
155 Mhz	<b>FC1 = FC Panel Mount</b>	<b>1 = 9/125/900 SMF</b>	<b>SC = SC</b>
450 MHz	<b>FC2 = FC Board Mount</b>	<b>2 = 50/125 MMF</b>	<b>SA = SC/APC</b>
1.2 GHz	<b>ST7 = ST Low Profile</b>	<b>3 = 62.5/125 MMF</b>	<b>FC = FC PC</b>
2.5 GHz	<b>ST8 = ST High Profile</b>	<b>9 = Supplied by cust</b>	<b>FA = FC/APC .</b>
	<b>SC2 = SC Board/Panel Mount</b>		<b>OO = No Connector</b>
<b>Bracket Type (pigtail only)</b>	<b>M = Length in meters (pigtail only)</b>		
<b>A = None</b>	<b>10 = 10meter</b>		
<b>B = Panel Mount</b>	<b>03 = 3 meters</b>		
<b>D = Board Mount</b>	<b>01 = 1 meter</b>		
<b>W = Shipped Separately with PIN TIA</b>	<b>.1 = .1 meters</b>		
<b>X = Customer Supplied</b>	<b>.5 = 0.5 meters</b>		

**Mechanical Dimensions for Pigtailed Device with Board Mount Bracket and FC/PC connector**

