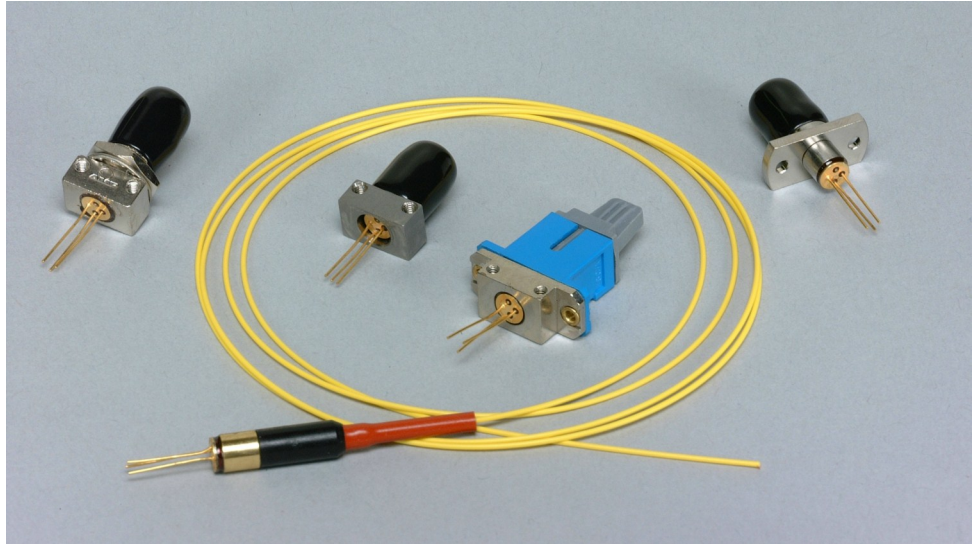


**InGaAs PIN TIA Receivers**

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 240 MHz. These devices do not include automatic gain control (AGC), and so offer an output signal that is linearly proportional to the optical input power level. 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 MB Ethernet  
FDDI  
ATM
- **Telecommunications**  
SONET OC-3  
SDH: STM1/STM3
- **Storage**  
Fiber Channel

**Features**

- **IEEE 802.3 Performance**
- **ITU G.957 Compliant**
- **-40 to 85°C Operating Range**
- **Differential Output**
- **Operates with 3.3V or 5V**
- **FC, ST ,SC Receptacle Housing**
- **Pigtailed w/9/125 μm Fiber**

<b>Absolute Maximum Ratings</b>				
<b>Supply Voltage</b>	V <sub>cc</sub>	4.5 to 5.5 +/-2.25 to +/-5.5	Volts	Single Supply Dual Supply
<b>Operating Temperature</b>	T <sub>opr</sub>	-40 to +85	°C	
<b>Storage Temperature</b>	T <sub>stg</sub>	-40 to +85	°C	

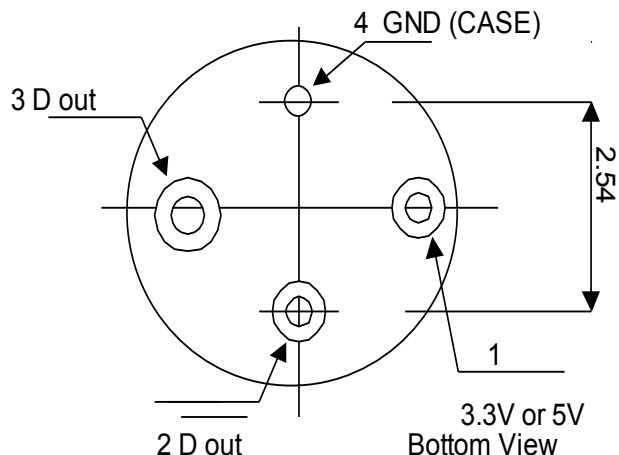
Parameter	Units	Symbol	155 MHz		
			Min.	Typ.	Max.
Operating Wavelength	nm	Lambda	1100	—	1650
Differential Gain at 10MBs Differential at 1310nm	V/mW	G	52	—	70
Analog Bandwidth (-3dB)	MHz	BW <sub>e</sub>	DC	—	240
Power Supply	V	V <sub>cc</sub>	3.0	3.3	5.5
Differential Output Voltage Swing R <sub>L</sub> =∞	V	V <sub>d</sub>	—	1	—
Differential Output Voltage Swing R <sub>L</sub> =50 Ohms	V	V <sub>d</sub>		0.6	
Optical Sensitivity BER=10Exp-10 at 155MBs	dBm	S	—	-36	—
Optical Saturation Power	dBm	P <sub>sat</sub>	—	—	-7
Output Resistance	ohm	R <sub>out</sub>	40	50	60
Operating Current	mA	I <sub>cc</sub>	—	25	26

Specifications are subject to change without notice. Please contact PD-LD Sales .

02-09 PTINS Rev A

InGaAs PIN Photodiode with TIA

**Pinout & Dimensions (mm)**



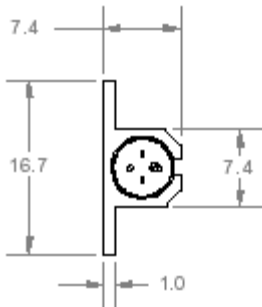
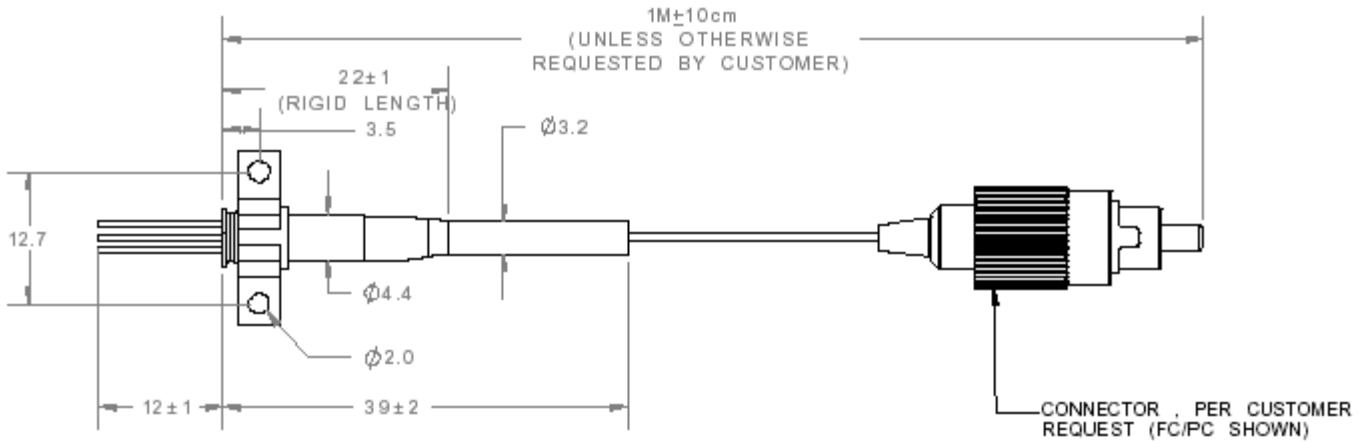
PIN Assignment

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

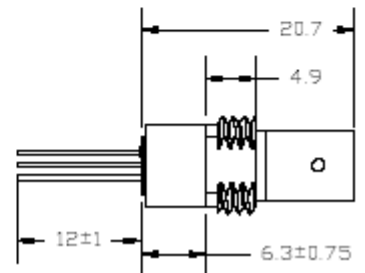
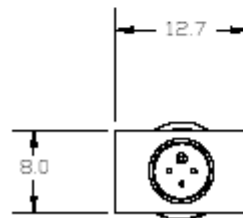
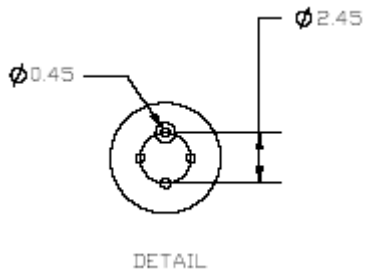
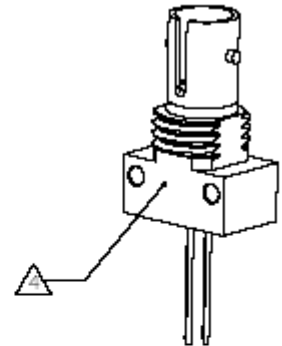
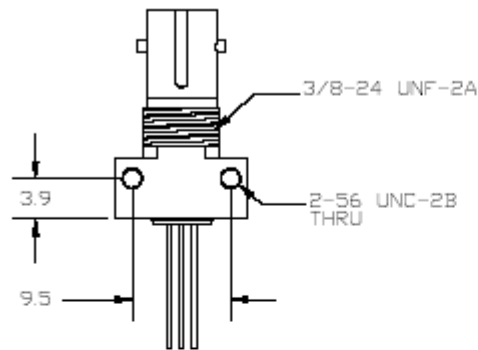
**Ordering Information**

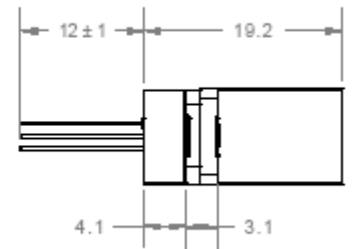
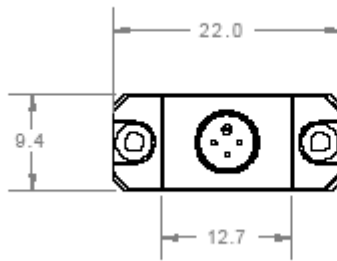
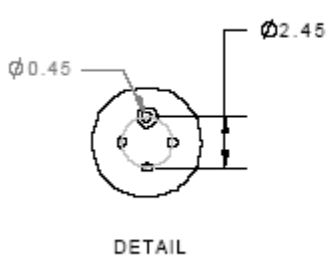
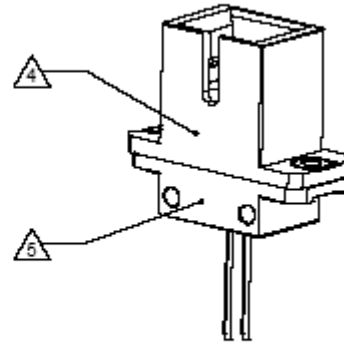
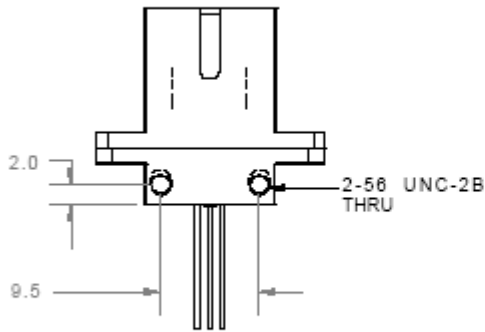
PIN TIA Pigtails		PIN TIA Receptacles	
<b>PTINDXXXFCCB-O-V-MM</b>		<b>PTINDXXXRRRF-O-V</b>	
<b>T= PIN TIA</b>	<b>IN= InGaAs Photodiode</b>	<b>D = "S" for 155MBs &amp; 3.3V</b>	<b>CC = Connector Type</b>
<b>XXX= Bandwidth</b> 155 Mhz	<b>RRR = Receptacle</b> FC1 = FC Panel Mount FC2 = FC Board Mount ST7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

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



**ST Receptacle Package**





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.

▲ PLASTIC, BLUE

▲ BRASS, NICKEL PLATED

