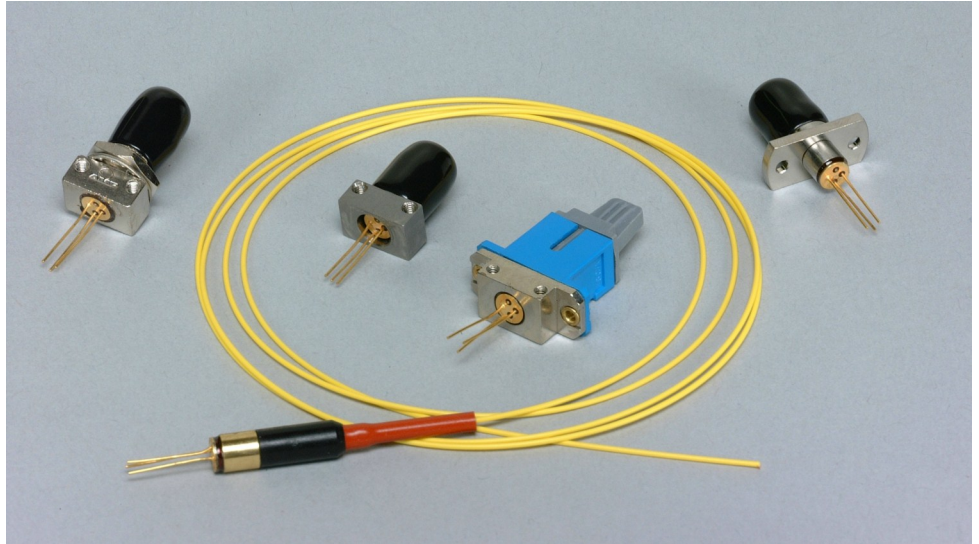


InGaAs PIN TIA Receivers

PD-LD Inc. offers low noise, high responsivity InGaAs photo detectors paired with a trans-impedance 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 155MBs. These devices include automatic gain control (AGC), and so suitable for receiving optical signals with up to 0 dBm power. 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

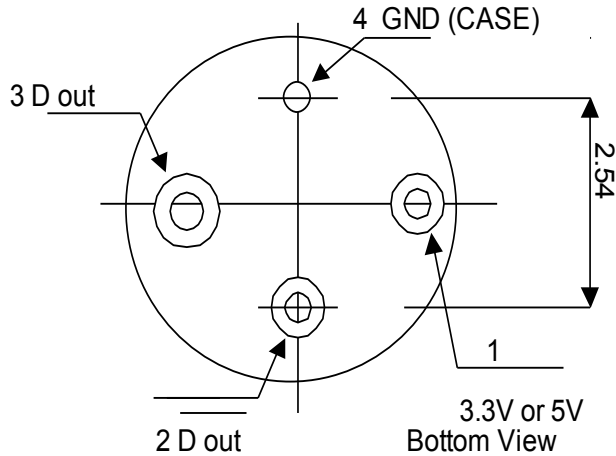
- IEEE 802.3 Performance
- ITU G.957 Compliant
- -40 to 85°C Operating Range
- Differential Output
- Operates with 5V
- FC, ST ,SC Receptacle Housing
- Pigtailed w/9/125 μm Fiber

Absolute Maximum Ratings				
Supply Voltage	V _{cc}	4.5 to 5.5	Volts	Single Supply Dual Supply
Operating Temperature	T _{opr}	-40 to +85	°C	
Storage Temperature	T _{stg}	-40 to +85	°C	

Parameter	Units	Symbol	155 MHz		
			Min.	Typ.	Max.
Operating Wavelength	nm	Lambda	1100	—	1650
Bandwidth (-3dB)	MHz	BW _e	115		
Power Supply	V	V _{cc}	4.5	5.0	5.5
Differential Output Voltage Swing R _L =∞	V	V _d	—	1	—
Differential Output Voltage	mV	V _d	800		
Optical Sensitivity BER=10Exp-10 at 155MBs	dBm	S	-35	-40	—
Optical Saturation Power	dBm	P _{sat}	—	0	3
Output Resistance	ohm	R _{out}	40	50	60
Operating Current	mA	I _{cc}	—	—	35

InGaAs PIN Photodiode with TIA

Pinout & Dimensions (mm)



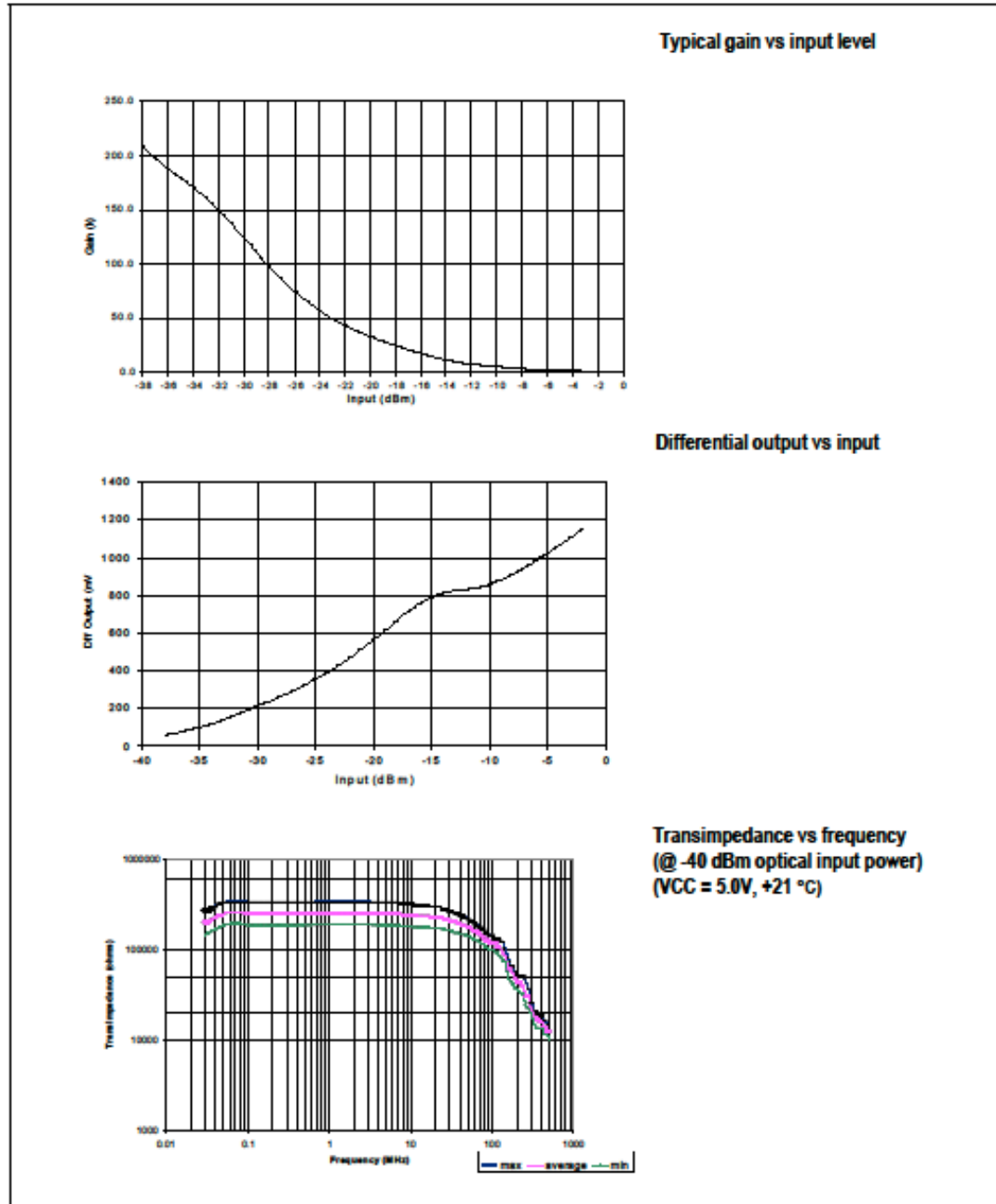
PIN Assignment

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

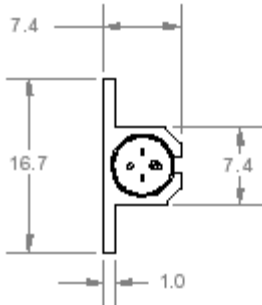
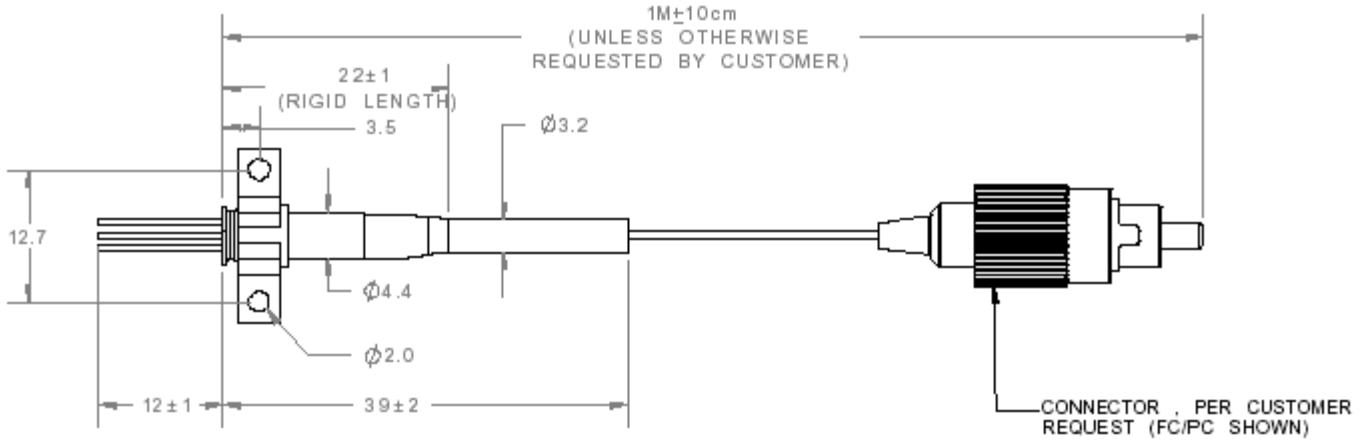
Ordering Information

PIN TIA Pigtails		PIN TIA Receptacles	
PTINDXXXFCCB-O-V-MM		PTINDXXXRRRF-O-V	
T= PIN TIA	IN= InGaAs Photodiode	D = "Q" for 155MBs & 5.0V	CC = Connector Type
XXX= Bandwidth 155 Mhz	RRR = Receptacle FC1 = FC Panel Mount FC2 = FC Board Mount ST7 = ST Low Profile ST8 = ST High Profile SC2 = SC Board/Panel Mount	F = Fiber Type 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
Bracket Type (pigtail only) A = None B = Panel Mount D = Board Mount W = Shipped Separately with PIN TIA X = Customer Supplied	M = Length in meters (pigtail only) 10 = 10meter 03 = 3 meters 01 = 1 meter .1 = .1 meters .5 = 0.5 meters		

Figure 1-1. Typical Performance Curves



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



ST Receptacle Package

