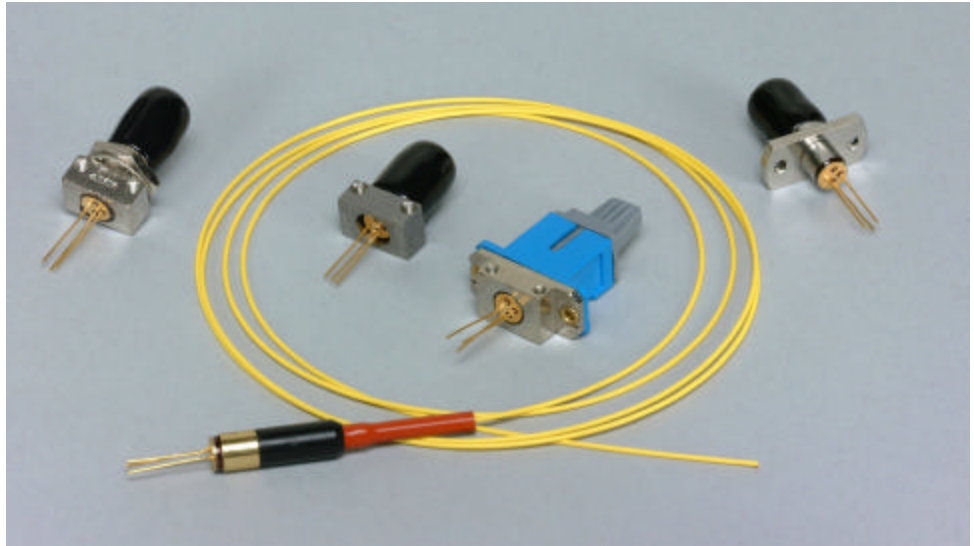


InGaAs PIN TIA Receivers

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

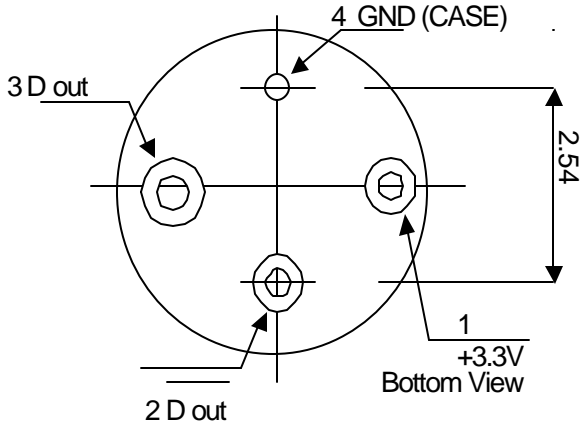
- IEEE 802.3 Performance
- ITU G.957 Compliant
- -40 to 85°C Operating Range
- Differential Output
- Operates with 3.3V
- FC, ST ,SC Receptacle Housing
- Pigtailed w/9/125 μm Fiber

Absolute Maximum Ratings			
Supply Voltage	V _{cc}	3.6	Volts
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
Differential Gain at 10MBs Differential at 1310nm	V/mW	G	52	—	70
Analog Bandwidth (-3dB)	MHz	BW _e	120	140	—
Power Supply	V	V _{cc}	3.0	3.3	3.6
Differential Output Voltage	V	V _d	—	—	1
Optical Sensitivity BER=10Exp-10 at 155MBs	dBm	S	—	-38	-36
Optical Saturation Power	dBm	P _{sat}	-3	0	
Output Resistance	ohm	R _{out}	—	50	65
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 = "A" for 155MBs & 3.3V	CC = Connector Type
XXX= Bandwidth	RRR = Receptacle	F = Fiber Type	ST = ST
155 Mhz	FC1 = FC Panel Mount	1 = 9/125/900 SMF	SC = SC
450 MHz	FC2 = FC Board Mount	2 = 50/125 MMF	SA = SC/APC
1.2 GHz	ST7 = ST Low Profile	3 = 62.5/125 MMF	FC = FC PC
2.5 GHz	ST8 = ST High Profile	9 = Supplied by cust	FA = FC/APC .
	SC2 = SC Board/Panel Mount		OO = No Connector
Bracket Type (pigtail only)	M = Length in meters (pigtail only)		
A = None	10 = 10meter		
B = Panel Mount	03 = 3 meters		
D = Board Mount	01 = 1 meter		
W = Shipped Separately with PIN TIA	.1 = .1 meters		
X = Customer Supplied	.5 = 0.5 meters		

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

