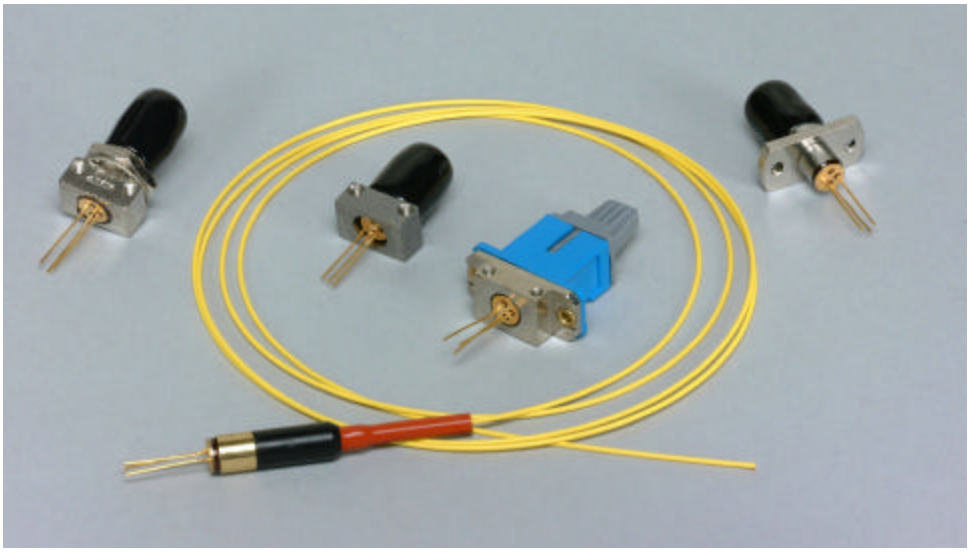
PD LD Inc.

PTIN15- Series PTIN1.2- Series Receivers for Fiber Optics
PTIN62- Series PTIN2.5– Series InGaAs PIN w/TIA

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: 150 MHz, 450 MHz, 1.0 GHz and 2.5GHz. 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 pigtails 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**

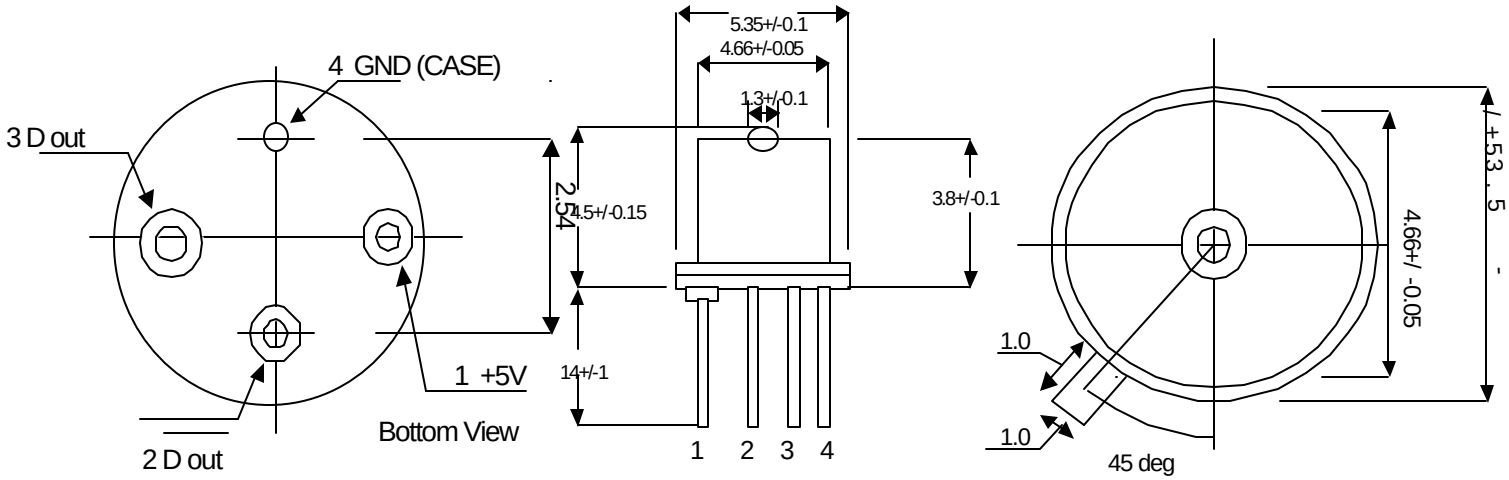
Features

- **IEEE 802.3 Performance**
- **Belcore TA983 Compliant**
- **ITU G.957 Compliant**
- **-40 to 85ºC Operating Range**
- **Differential or Single Ended Ouput**
- **Operates with 3.3V or 5V Supply**
- **FC, ST ,SC Receptacle Housing**
- **Pigtailed w/9/125 ì m Fiber**

Parameter	Units	Symbol	155 MHz Min.	155 MHz Max.	450 MHz Min.	450 MHz Max	1100 MHz Min.	1100 MHz Max.	2500 MHZ Min.	2500 MHZ Typ.	2500 MHZ Max.
Operating Wavelength	nm	ë	1100	1650	1100	1600	1100	1600	1100		1600
Differential Gain	V/mW	G	.17	220	0.2	24	0.2	24		26	
Analog Bandwidth (-3dB)	MHz	BW_e	120	175	450	—	800	1100	1600		2000
Rise and Fall Times	nsec	$t_{r,f}$	—	3.3	5.0	8.0	—	0.26	—		0.15
PowerSupply (3.3V available)	V	V_{cc}	4.5	5.5	4.5	5.5	4.5	5.5	4.5		5.5
Output offset Voltage	V	V_{os}	V_{cc}-3.5	V_{cc}-1.5	V_{cc}-3.5	V_{cc}-1.5	V_{cc}-3.5	V_{cc}-1.5	V_{cc}-3.5		V_{cc}-1.5
Differential Output Voltage	V	V_d	—	1	—	1.3	—-	0.5		0.6	
Optical Sensitivity	dBm	S	—	-38 -36	—	-31.5 -29	—	-24 –22	--	-21	-18
Optical Saturation Power	dBm	P_{sat}	—	-3	—	-3	—	-3	—-		-3
Output Resistance	ohm	R_{out}	30	65	50	65	30	65	48	60	72
Operating Current	mA	I_{cc}	—	35	—	50	—	50	—	47	57

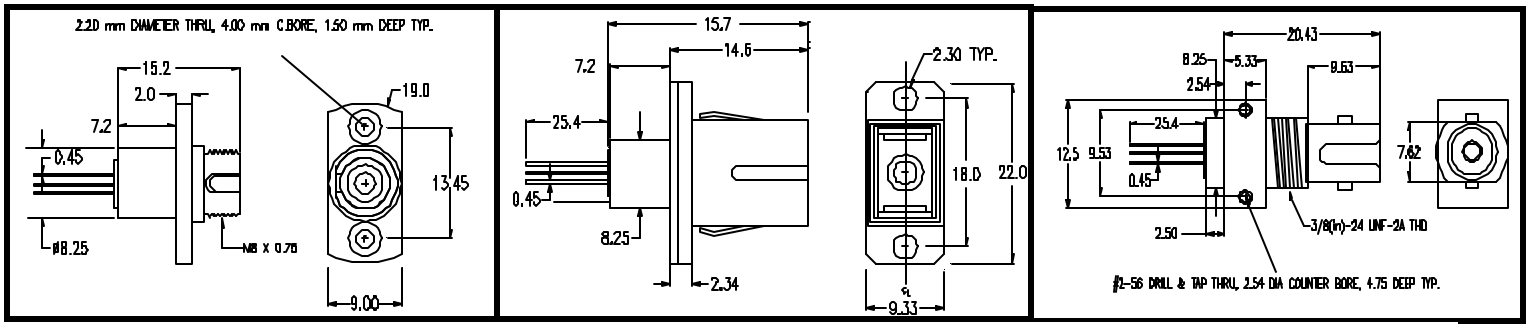
Specifications are subject to change without notice. Please contact PD-LD Sales . 01-10 PINTIA .Rev.A

30-B Pennington-Hopewell Rd., Pennington NJ 08543 FON: 609-564-7900 FAX: 609-564-7901 EMAIL: info@pd-ld.com www.pd-ld.com



InGaAs PIN Photodiode with TIA

Pinout & Mechanical Dimensions (mm)



Ordering Information

PIN TIA Pigtails	**PIN TIA Receptacles**
PTINDXXXFCCB-O-V-MM	PTINDXXXRRRF-O-V

T= PIN TIA

IN= InGaAs Photodiode

XXX= Bandwidth
150 Mhz
450 MHz
1.2 GHz
2.5 GHz

RRR = Receptacle
FC1 = FC Panel Mount
FC2 = FC Board Mount
ST1 = ST
ST2 = ST low profile
SC1 = SC

D = Device Identification
Unique & Assigned by PD-LD

F = Fiber Type
1 = 9/125/900 SMF
2 = 50/125 MMF
3 = 62.5/125 MMF
9 = Supplied by cust

CC = Connector Type
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 Seperately 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

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