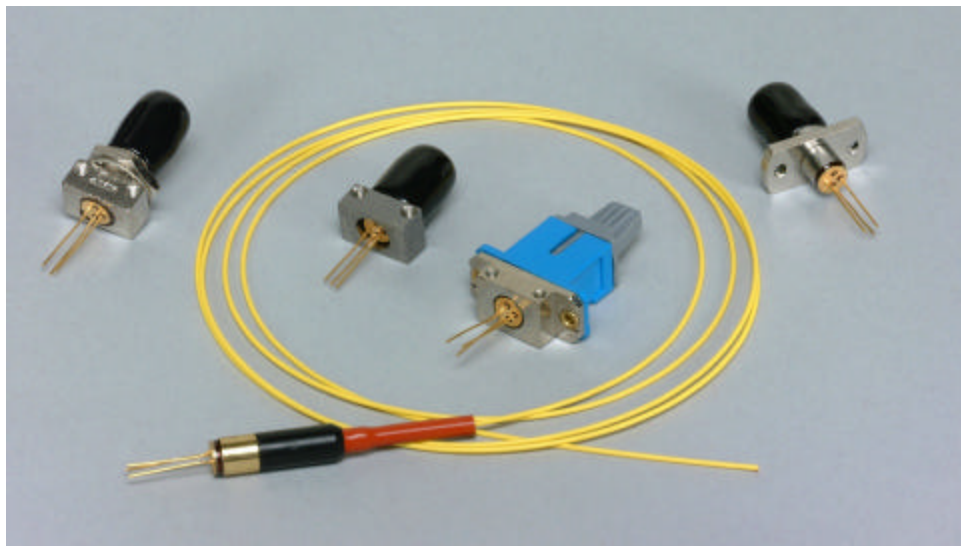


InGaAs APD's

PD-LD Inc. offers low noise, high responsivity InGaAs Avalanche Photo Diodes (APD's) in convenient fiber coupled packages. These assemblies incorporate 55 micron diameter active area APD's that responds optimally to both 1310 and 1550 nm light sources. Each module contains a semiconductor whose bandwidth is ideally suited to industry standard transmission rates from DC to 2.5GHz. The planar fabrication techniques used to create these semiconductors make them optimal for applications demanding high reliability receivers. When fiber pigtailed these components are available with low back reflection (LBR) performance. LBR may be specified from -40 to -55dB depending upon the application.

These modules are available with either bare or connectorized fiber pigtails or in receptacle style housings suitable for board or panel mounting. Receptacle mounted APDs are not available with LBR feature. These high reliability units are operational between 0 and 85°C and may be stored between -40 and 85°C.



Applications

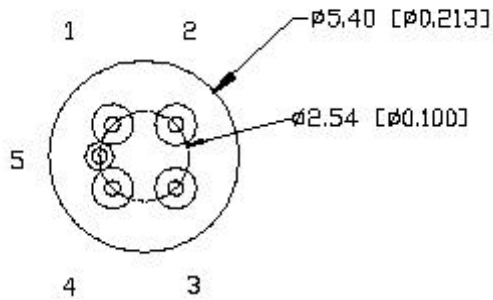
- SONET/SDH
- CWDM 2.5GBs Receivers
- ONU Nodes
- 10GB Ethernet LX4 Modules
- High Frequency Test Equipment

Features

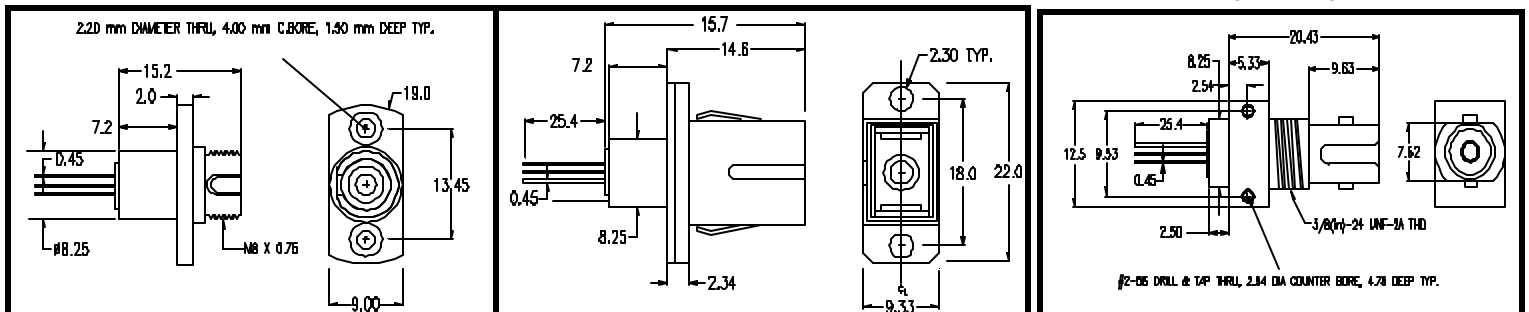
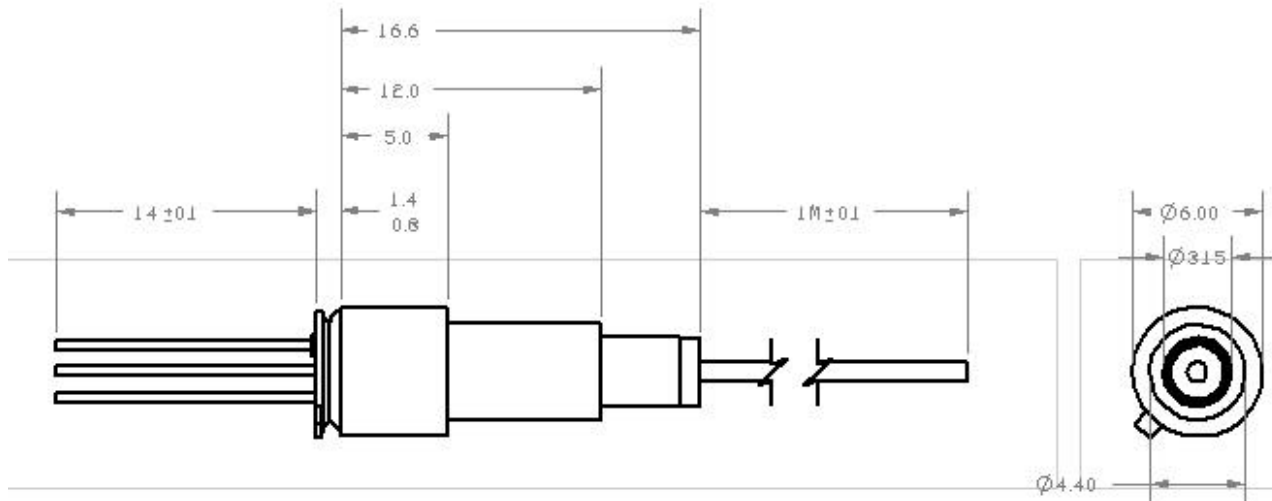
- InGaAs APD
- -34dBm Sensitivity at 2.5GBs
- High Responsivity
- Low capacitance receivers
- High Gain, low Noise
- 0 to 85°C Operating Range
- FC, ST, SC Receptacle Housing
- Pigtailed w/9/125 μ m Fiber

Parameter	Units	Symbol	Values
Operating Wavelength	nm	Λ	1100 to 1600nm
Responsivity -1550nm fiber coupled, $V_{br}-1$	A/W	R	4 min 7 typ
Analog Bandwidth (-3dB from 130MHz)	GHz	BW_e	1.8 min 2.0 typ
Dark Current $V_{br} - 1$	nA	I_d	10 typ 50 max
Breakdown Voltage $I_d=10\mu A$	V	V_R	-20 max
Capacitance, $V_{br}-1$, f=1MHz	pF	C	0.35 typ 0.50 max
Optical Back Reflection Option, Pigtailed Units Only	OBR	dB	-40 max
Temperature Coefficient	% / °C	ΔT	0.15 typ
APD Reverse Current	mA	I_r	3 max

PDINK Series InGaAs Avalanche Photodiodes



PIN	FUNCTION
1	DATA
2	V _{supply}
3	V _{APD}
4	DATA
5	GND



Fiber Pigtailed Devices

PDINK055FCCB-O-V-MM

D= Detector

IN= InGaAs Photodiode

K = 55um APD

055= Diameter
(um)

RRR = Receptacle

FC1 = FC Panel Mount

FC2 = FC Board Mount

$$\mathbf{ST1} = \mathbf{ST}$$

ST2 = ST low profile

SC1 = SC

B=Bracket Type (pigtail only)

A = None

B = Panel Mount

D = Board Mount

X = Customer Supplied

O= Lead Orientation

0=N/A

V= Version

0=standard

F = Fiber Type

1 = 9/125/900 SMF

2 = 50/125 MMF

3 = 62.5/125 MMF

5= 9/125/900 LBR

9 = Supplied by cust

M = Length in meters (pigtail only)

10 = 10meter

03 = 3 meters

01 = 1 meter

.1 = .1 meters

.5 = 0.5 meters

CC = Connector Type

$$\mathbf{ST} = \mathbf{ST}$$
$$SC = SC$$
$$SA = SC/APC$$
$$FC = FC_{PC}$$
$$FA = FC/APC.$$

00 = No Connector