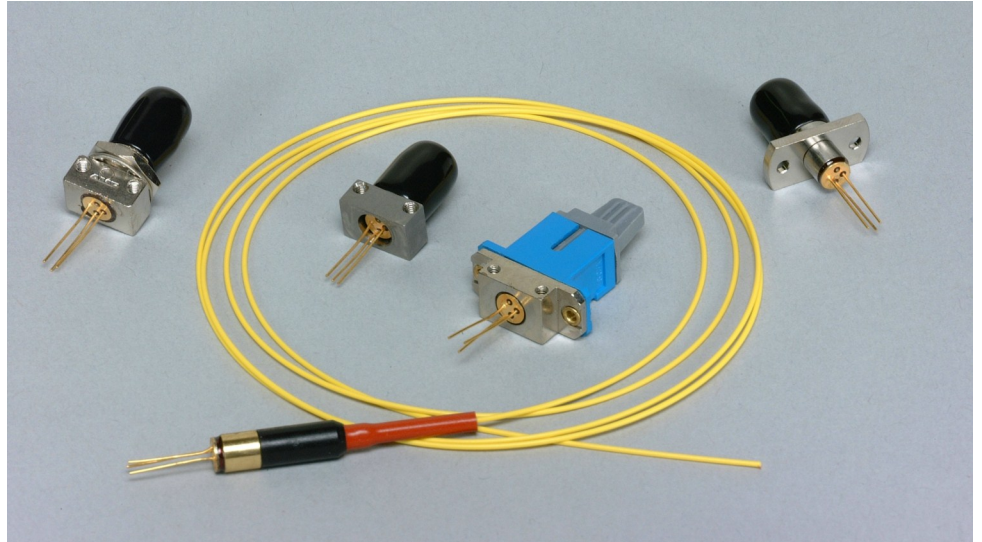


InGaAs APD's

PD-LD Inc. offers low noise, high responsivity InGaAs Avalanche Photo Diodes (APD's) in convenient fiber coupled packages. These assemblies incorporate top-illuminated 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 2.5 GHz. The planar fabrication techniques used to create these semiconductors make them optimal for applications demanding high reliability receivers. For optimal performance with gains on the order of 10 to 15 they should be operated at voltage biases below breakdown.

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



Applications

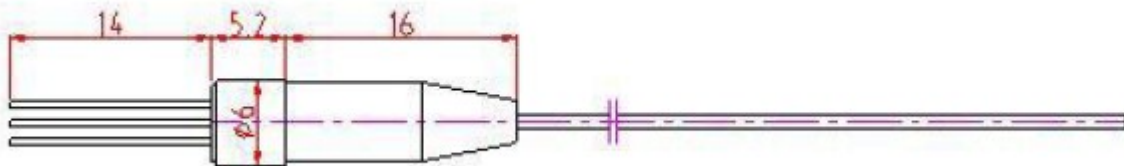
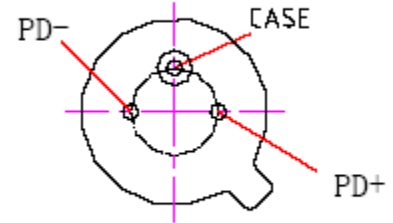
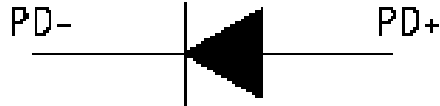
- SONET/SDH
- FTTH
- ONU Nodes
- High Frequency Test Equipment
- Low light receivers

Features

- InGaAs APD
- High Responsivity
- Low capacitance receivers
- High Gain, low Noise
- -40 to 85°C Operating Range
- FC, ST ,SC Receptacle Housing
- Pigtailed w/9/125 μm Fiber

Parameter	Units	Symbol	Values
Operating Wavelength	nm	Lambda	950 to 1650nm
Responsivity 1550nm fiber coupled, M=1	A/W	R	0.85 min
Responsivity 1310nm fiber coupled M=1	A/W	R	0.7 min
Analog Bandwidth (-3 dB from 130 MHz) M=10, 50 Ohm load	GHz	BW _e	2.5 min
Active Diameter	um	D	55 typ.
Total Dark Current M=10, Vr=0.9 Vb	nA	Id	10 typ 50 max
Breakdown Voltage Id=10uA	Vbr	V _b	30 min 60 max
Capacitance, V _b -0.9, M=10, f=1MHz	pF	C	0.38 typ 0.5 max
Temperature Coefficient	V / °C	Delta T	0.09 typ
APD Reverse Current	uA	I _r	500 max
Maximum Multiplication Factor 1310nm		M max	25

Mechanical Specifications and PIN-OUT



Fiber Pigtailed Devices

PDIABS055FCCB-O-V-MM

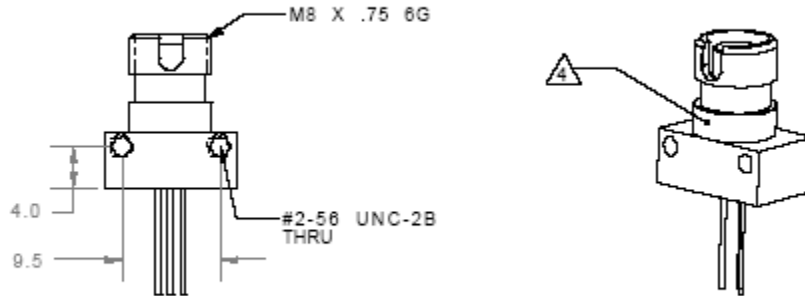
Receptacle Mounted Device

PDIABS055RRRF-O-V

D= Detector	IA= InGaAs APD	BS = 55 um APD	CC = Connector Type
055= Diameter (um)	RRR = Receptacle	F = Fiber Type	ST = ST
	FC1 = FC Panel Mount	1 = 9/125/900 SMF	SC = SC
	FC2 = FC Board Mount	2 = 50/125 MMF	SA = SC/APC
	ST1 = ST	3 = 62.5/125 MMF	FC = FC PC
	ST2 = ST low profile	5= 9/125/900 LBR	FA = FC/APC .
	SC1 = SC	9 = Supplied by cust	00 = No Connector
B=Bracket Type (pigtail only)	O= Lead Orientation	M = Length in meters (pigtail only)	
A = None	0=N/A	10 = 10meter	
B = Panel Mount	T= Grnd at 6:00	03 = 3 meters	
D = Board Mount	V= Version	01 = 1 meter	
X = Customer Supplied	0=standard	.1 = .1 meters	
		.5 = 0.5 meters	

55 um Diameter InGaAs Avalanche Photodiodes

FC Board Mount Receptacle



FC Panel Mount Receptacle

