



PDIN Series
InGaAs PIN Photodiode

- PDINCF0705FAA-0-0-01 Pigtailed
- PDINCF070B00A-0-0-01 Pigtailed
- PDINCF070K00A-0-0-01 Pigtailed
- PDINCF070FC21-M-0 FC Board mount
- PDINCF070SC21-M-0 SC Board mount

PD-LD Inc. offers a variety of standard and custom PIN Photodiodes and APDs in fiber coupled packages. The semiconductors offered are of proven manufacture and design. InGaAs is optimal from 1100 to 1650nm. All devices are available in fiber pigtailed co-axial packages or in connector style receptacle packages.

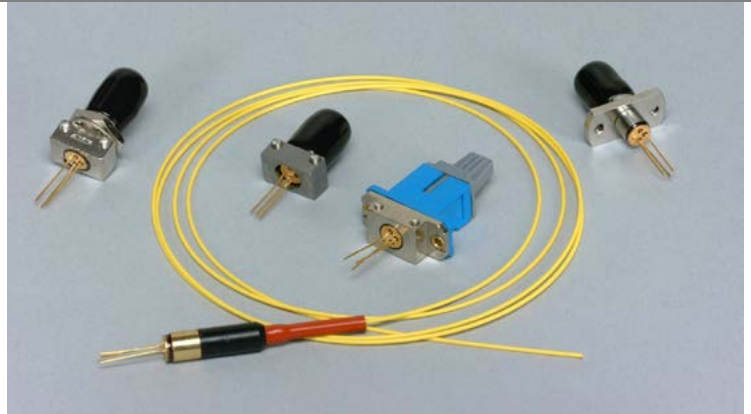
Pigtailing

Devices can be pigtailed with any size optical fiber that is compatible with its active area size. Pigtailed devices may range in core size from 3um to 100micron. One meter is the standard length, but any length or connector termination may be specified. Pigtailed devices may be terminated with ST, FC, SC and LC connectors with either PC or APC polish.

Receptacles

Standard ST, FC and SC housings are available in both panel and board mountable versions. These receptacles can be optimized for use with both single mode and multimode optical fibers.

RoHS Compliant



Low Back Reflection Assemblies

For those applications requiring low optical back reflection, PD-LD offers a series of fiber pigtailed InGaAs detectors. Typically, 55 um or 70um InGaAs detectors are aligned to angle-polished, radially tuned fiber pig-tails, in order to minimize incident reflected light. With this process, back reflection values may be minimized. Such devices are ideal for CATV, tap monitor and high speed digital applications.

Manufacturing

PD-LD Inc. maintains a large inventory of the most popular detector sizes and pin-outs. Efficient package designs and manufacturing processes allow PD-LD to rapidly support both small and large volume requirements. Complete 100% testing of all critical parametric device values ensure optimal performance and quality. Not all receptacle packaging styles are represented on this data sheet, so please contact PD-LD for specific needs.

PDINCF0705FAA-0-0-01 70um diameter InGaAs PIN Photodiode (tested at Vr=5V)					
Parameter	Unit	Min.	Typical	Max	Test Conditions
Wavelength	nm	1100		1620	
Responsivity	A/W	0.85			1550nm
Back Reflection LBR Pigtailed*	dB			-40	1550nm
Dark Current	pA		80	100	Vr=5V, Tc=-25°C
Capacitance	pF		0.45	0.6	
Bandwidth	GHz	3.0		5.0	
Single Second Order beat	dB		-75		
Single Third Order beat	dB		-85		

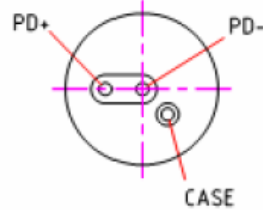
Notes: Pavg=0dBm MI=0.4 Vr=12V F1=550MHz F2= 55MHz Rload=50Ohms

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08-16PDINCF. Rev F

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Pigtailed
PDXXKAAAFCCB-O-V-M

Device Type XX	Device Code K	Active Area AAA	Fiber Size F (µm)	Connector CC Pigtail Only	Bracket B Pigtail Only	Orientation O	Version V	Pigtail Length M
IN=InGaAs PIN	CF= 70µm diameter with "T" style pin-out	070=70microns	1=9/125/900 3=62.5/125/900 5= Low Back Reflection, -40dB max, 9/125/900µm B=9/125/250µm F=62.5/125/250µm K= HI 1060 6µm core S=9.5µm PM Panda T=10.5µm PM Panda	00=no connector FA=FC/APC	A=None D= Board Mount E=Panel Mount	0= not applicable A= Bracket shipped loose with unit	0=standard 1= customer specific testing	01=1 m

Receptacle
PDXXKAAARRRF-O-V

Device Type XX	Device Code K	Active Area AAA	Receptacle RRR	Fiber F	Orientation O	Version V
IN=InGaAs PIN	CF= 70µm diameter with "T" style pin-out	070=70microns	FC1=FC Panel mount FC2=FC Board mount SC2= SC Board mount ST6= ST board mount	1=9/125µm	M= standard	0=standard 1= customer specific testing

InGaAs Absolute Maximum Ratings (Tc=25°C)

Parameter	Symbol	Value	Unit
Reverse Current	I_R	7	mA
Reverse Voltage	V_R	20	V
Forward Current	I_F	7.0	mA
Operating Temperature	T_{OPR}	-40 to 85	°C
Storage Temperature	T_{STR}	-40 to 95	°C
Input Optical Power at 1550nm	P	8	mW
Soldering Temperature		260/10	°C/sec

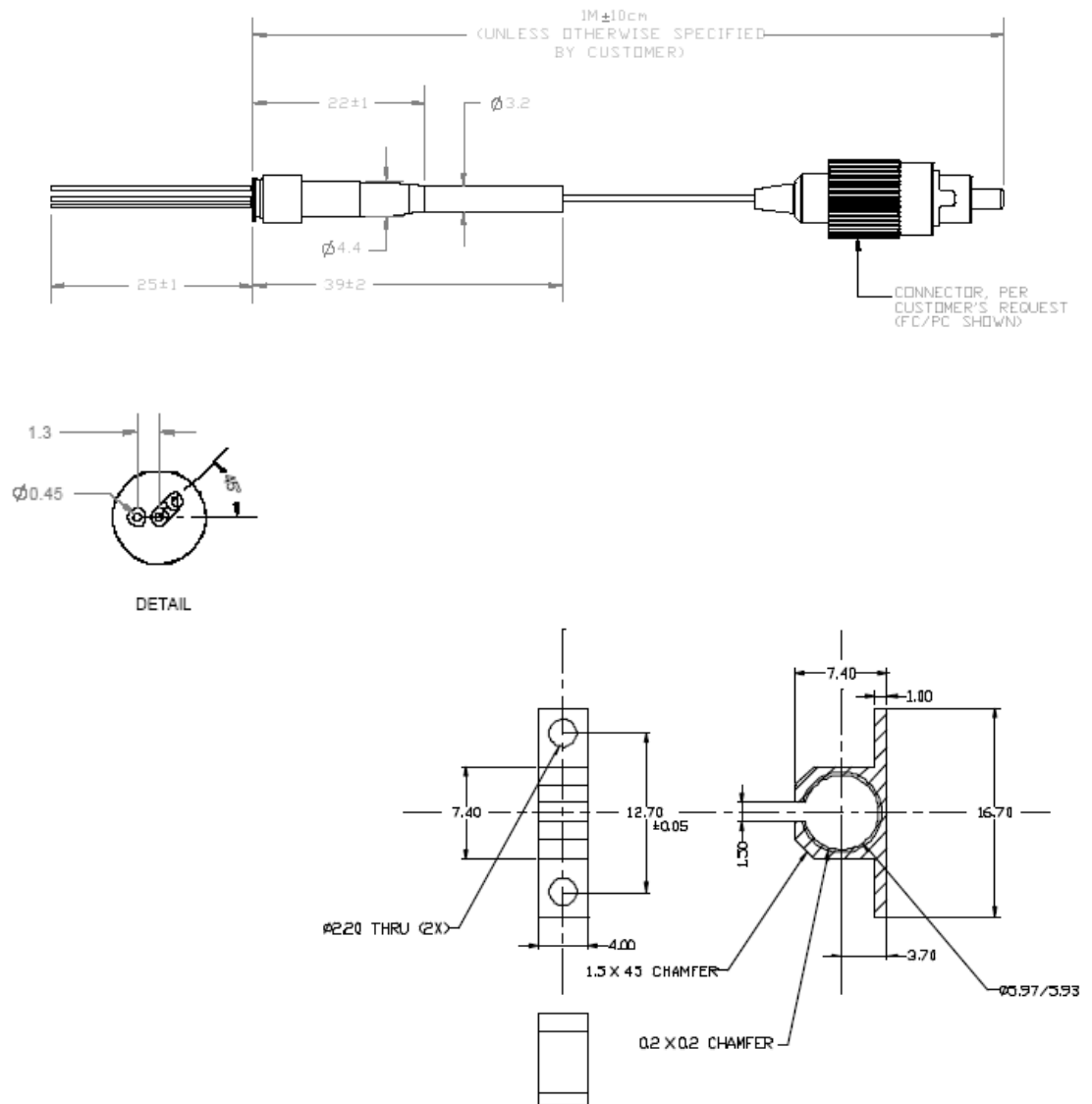
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**Mechanical Drawing for Coaxial Fiber Pigtailed PIN Photodiode
(Shown with connector)**



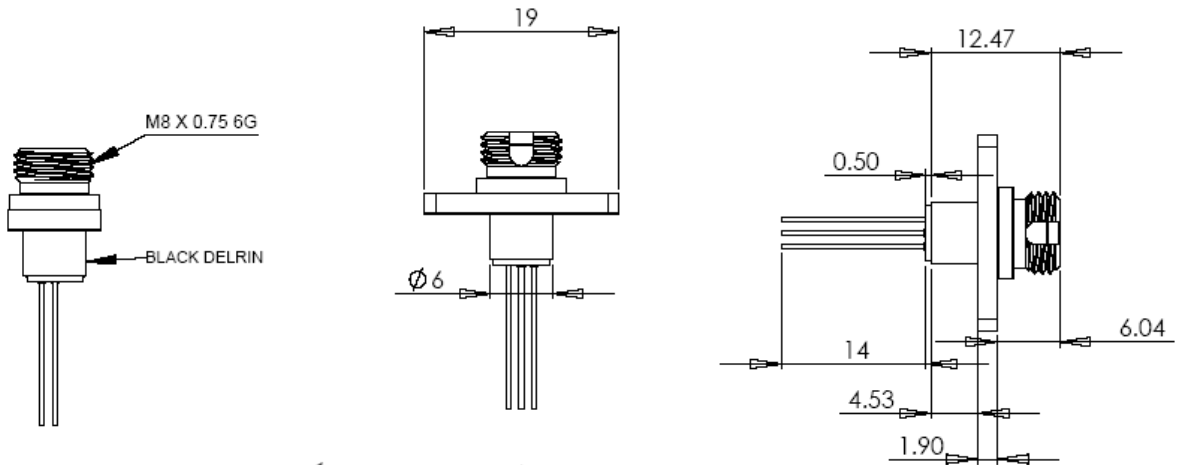
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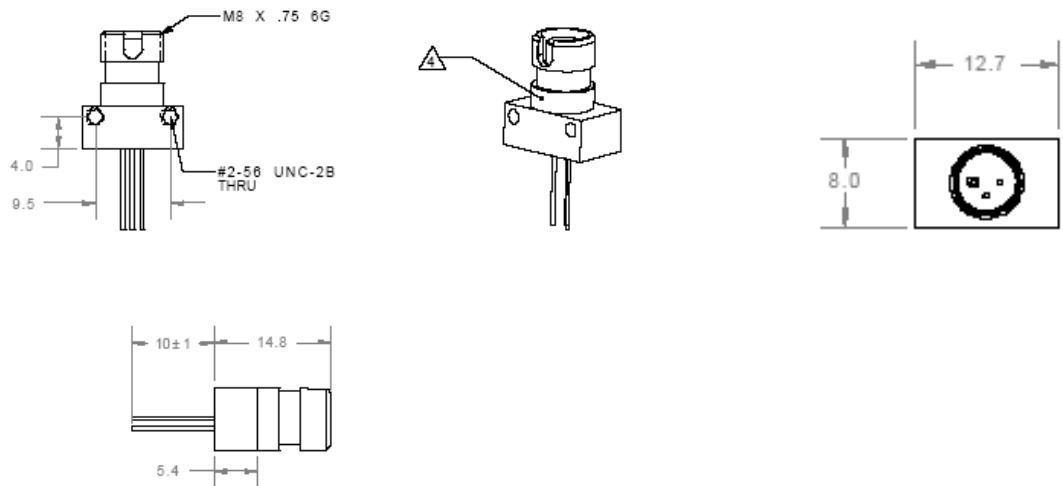
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FC Panel Mount Receptacle with "M" Lead Orientation
PDINCF070FC11-M-0



FC Board Mount Receptacle Assembly
PDINCF070FC21-M-0



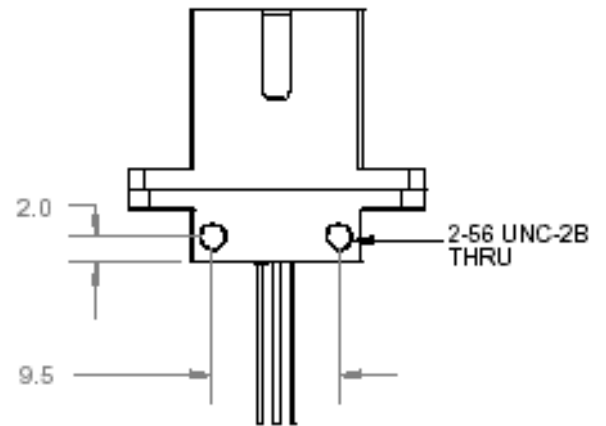
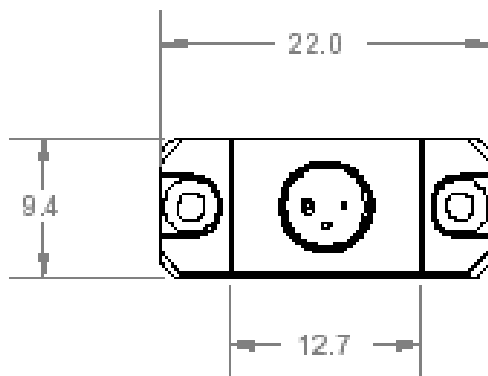
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SC Board Mount Receptacle Assembly



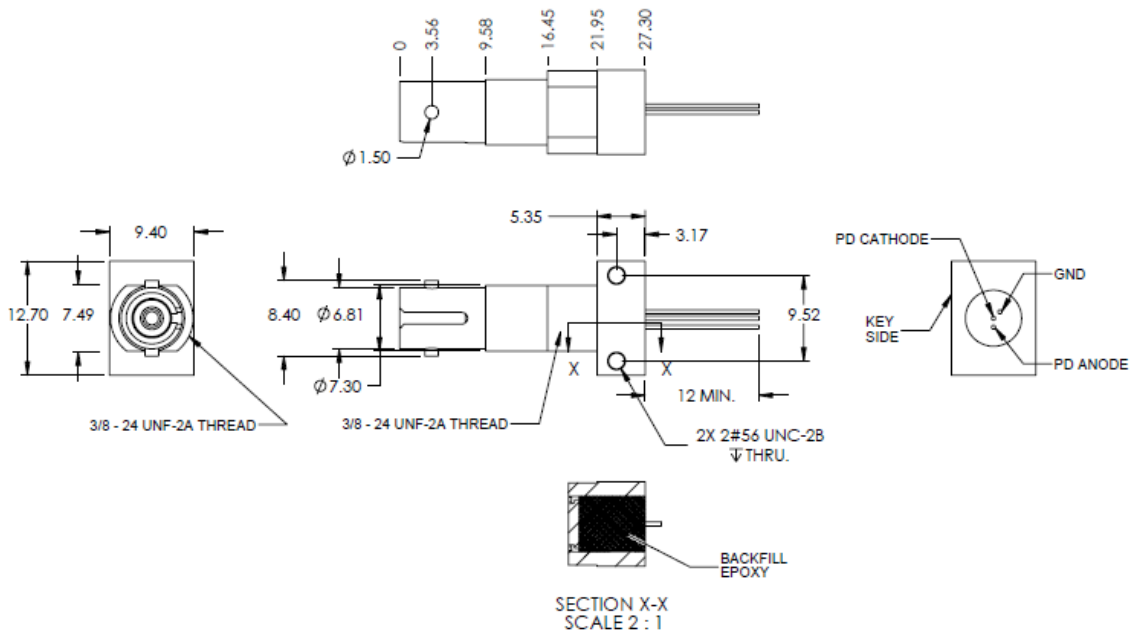
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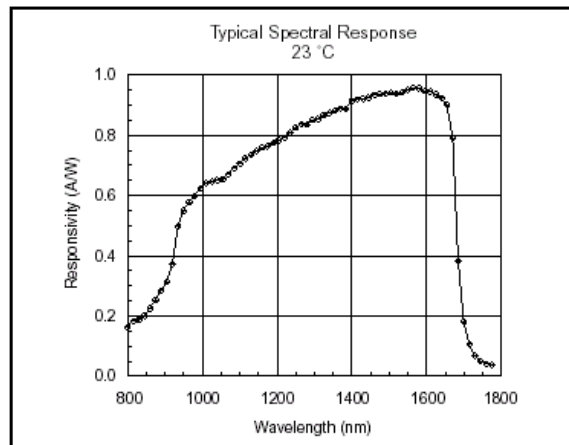
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**ST Board Mount Receptacle Assembly
PDINCF070ST61-M-0**



InGaAs PIN Intrinsic Responsivity versus Wavelength



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