

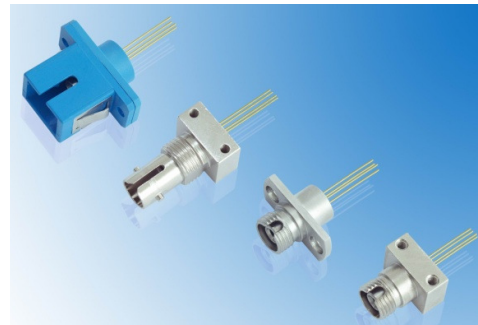
GPDR-2022XMG

Long Wavelength PIN Photodiode Module for Wide Frequency-range CATV

Receiver (Receptacle Module)

Features

- ◆ Low Return Loss
- ◆ Low Dark Current
- ◆ Quick Pulse Response
- ◆ Suitable for CATV Application
- ◆ High Responsivity at 1310nm and 1550nm, High Linearity
- ◆ High Reliability and Long Operation Life
- ◆ RoHS Compliant Products Available



Applications

- ◆ Analog Optical Receiver
- ◆ Test Equipments

General

GPDR-2022XMG InGaAs PIN Photodiode series are high quality analog photodetectors designed for AM CATV receiver applications.

A photodiode is mounted into a low capacitance coaxial package integrated with a receptacle.

Ordering Information (Standard version ^{*Note1})

Part No.	Wavelength (nm)	Explore Area (um)	Bandwidth (GHz)	Package	Pin Type
GPDR-2022AMG	1310~1550	75	3.2	A	M
GPDR-2022BTG	1310~1550	75	3.2	B	T
GPDR-2022CMG	1310~1550	50	3.2	C	M
GPDR-2022DTG	1310~1550	75	3.2	D	T

GPDR-2022EMG	1310~1550	75	3.2	E	M
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*Note1: For more ordering information, please refer the nomenclature and contact EPOTOLINK sales.

Absolute maximum ratings

Parameter	Symbol	Min	Max	Unit
Storage Temperature	T _{ST}	-40	100	□
Operating Temperature	T _{OP}	-40	85	□
Reverse Voltage	VR		20	V
Forward Current	I _{FD}		10	mA
Saturation Input Power	P _{IN}		10	dBm
Soldering Temperature / Time	Ts/t		260/10	°C/s

Electrical and optical characteristics

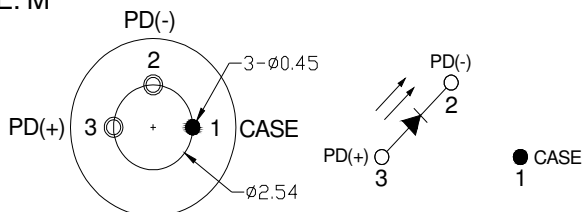
(V_r=5V, T_c=+25°C, unless otherwise noted.)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Detection Wavelength Range	λ	-	1100		1650	nm
Active Diameter	DA	-		75		μm
Responsibility	R	VR=-5V@1310nm	0.80	0.85	-	A/W
		VR=-5V@1550nm	0.85	0.90	-	A/W
Return Loss	RL		-	-55	-	dB
Dark Current	I _d	VR = 5V	-	0.1	1	nA
Capacitance	C _p	VR = 5V	-	0.6	0.7	pF
Bandwidth	BW	VR=5V		3.2		GHz
IMD2	CSO	λ=1310nm (*Note2)	-	-75	-70	dBc
IMD3	CTB		-	-85	-80	dBc

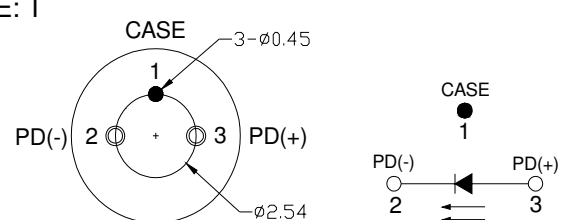
*Note2: IMD2 measured at V_R=12V, λ=1550nm, P_{avg}=0dBm, MI=0.7, R =50 Ω, f₁+f₂=850MHz, f₁-f₂=50MHz (Test frequency: f₁=450MHz, f₂=400Mhz) . All are measured at 25°C

Pin Assignment

TYPE: M

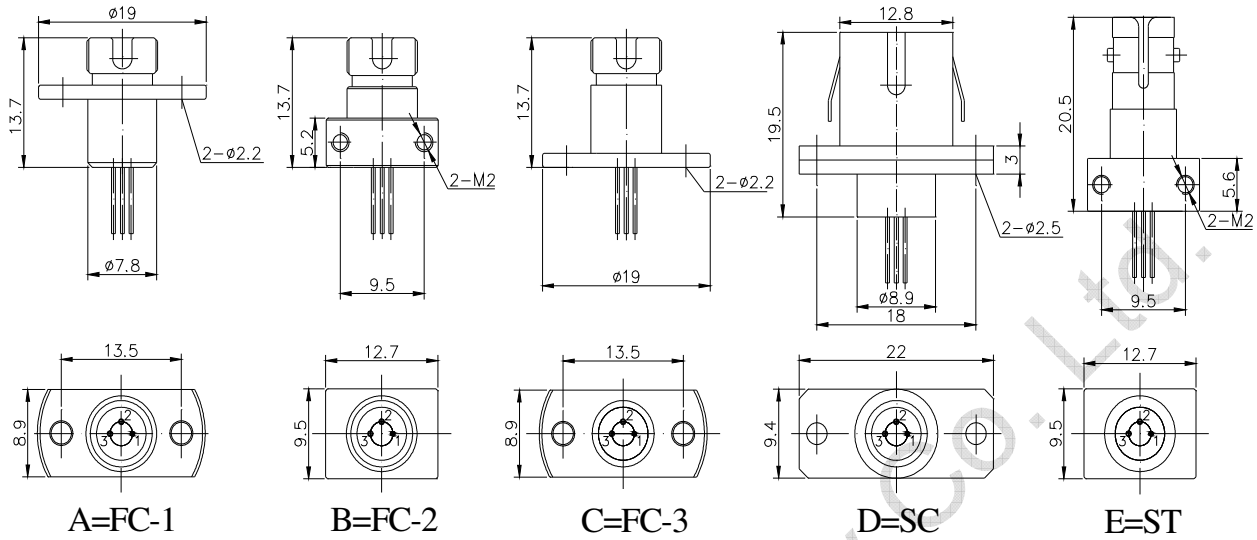


TYPE: T



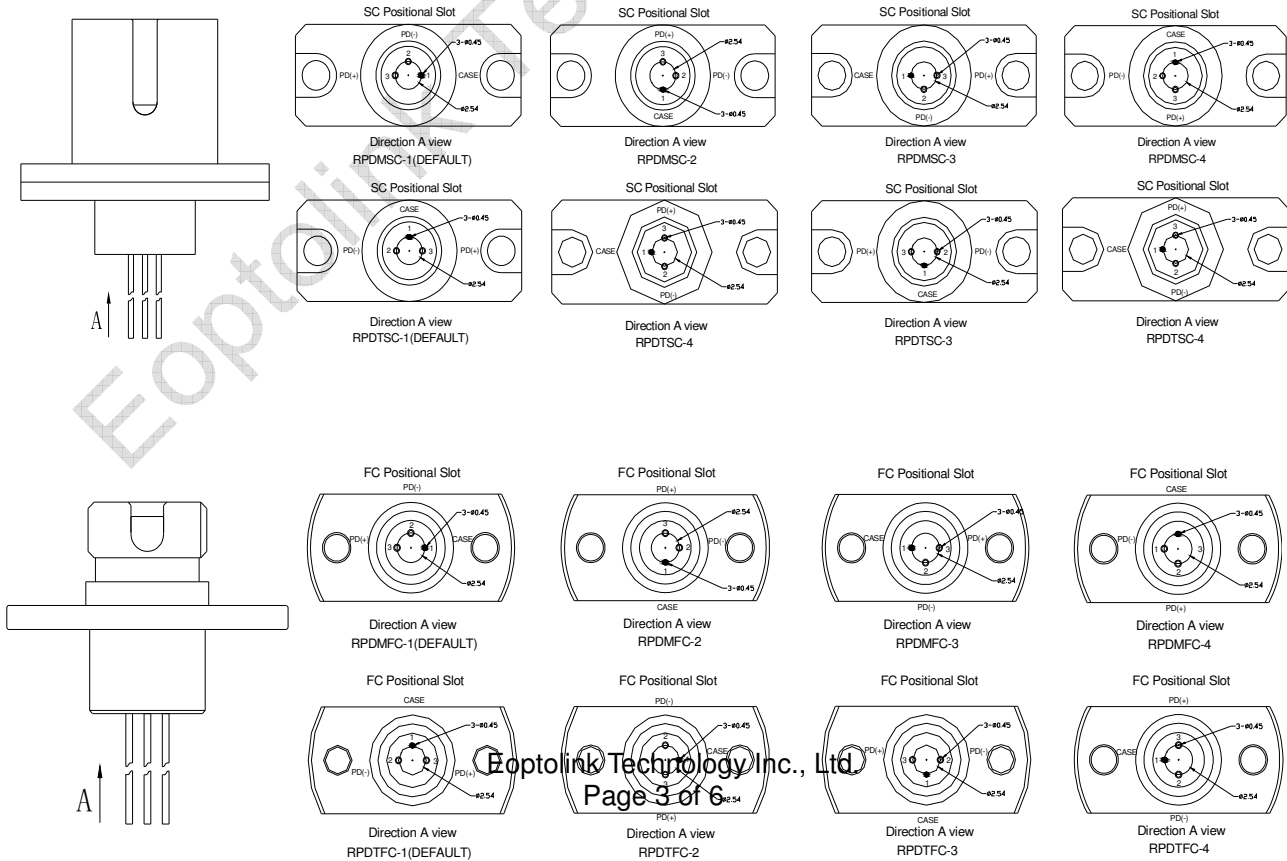
PD-pin-M Eoptolink Technology Inc., Ltd.

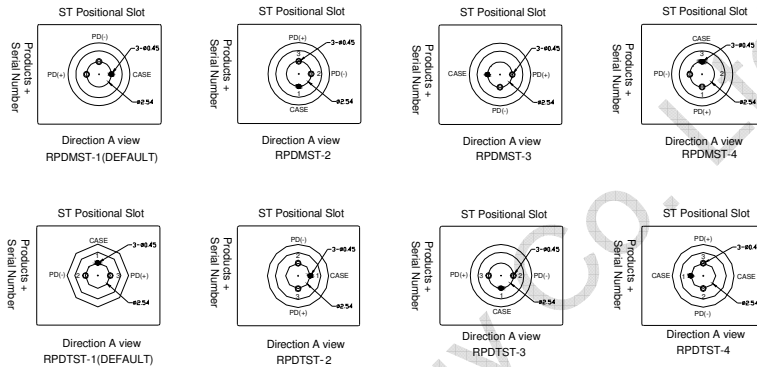
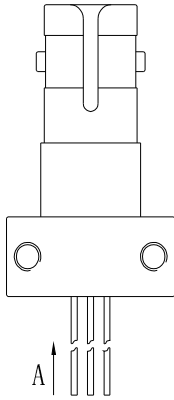
PD-pin-T



Receptacle Package series

The direction of fix card





Nomenclature
of
direction^{*Note3}

Code: R PD X X - X

Receptacle | Pin | Assembly Direction

M=Type-M
T=Type-T
FC = Package FC
SC = Package SC
ST = Package ST

assembly

*Note3: Please designate the code of assembly direction.

Ordering Information

G P D R—

A B C D E F G

A	Wavelength	20=1100~1610nm
B	Explore area	2=75μm
C	RF Bandwidth	2≤3.2GHz

D	Package series	A=FC-1	B=FC-2	C=FC-3	D=SC	E=ST
E	Pin Type	M=PD-pin-M			T=PD-pin-T	
F	TO Type	G				
G	Fiber diameter	Blank=SM			M=MM	

Precaution

- (1) The modules should be handled in the same manner as ordinary semiconductor devices to prevent the electro-static damages. For safe keeping and carrying, the modules should be packaged with ESD proof material. To assemble the modules on PCB, the workbench, the soldering iron and the human body should be grounded.
- (2) Please pay special attention to the atmosphere condition because the dew on the module may cause some electrical damages.
- (3) Under such a strong vibration environment as in automobile, the performance and reliability Are not guaranteed.

Obtaining Document

You can visit our website:

<http://www.eoptolink.com>

Or contact Eoptolink Technology Inc., Ltd. listed at the end of the documentation to get the latest documentation.

Revision History

Version	Initiated	Reviewed	Approved	Release Date
Va-4	Zore.Zhao	Jacky.Cheng		2009-12-22

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