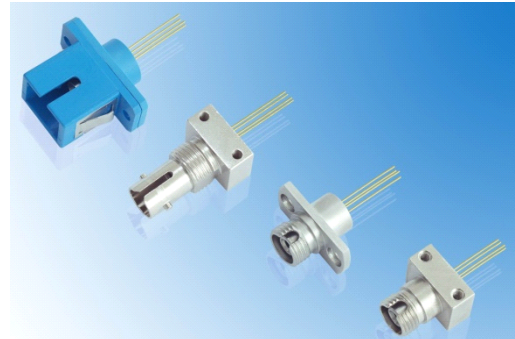


# GPDR-2020xxx

## Long Wavelength PIN Photodiode Module (Receptacle Module)



### Features

- ◆ Low Return Loss
- ◆ Low Dark Current
- ◆ Quick Pulse Response
- ◆ Suitable for CATV Application
- ◆ High Responsibility and High Linearity
- ◆ High Reliability and Long Operation Life
- ◆ RoHS Compliant Products Available

### Applications

- ◆ Optical Receiver
- ◆ Test Equipments

### General

GPDR-2020xxx Series are InGaAs/InP PIN photodiode modules designed for fiber optic communication systems. These modules are receptacle modules, and have high responsivity, high speed and low dark current. A photodiode is mounted into a low capacitance coaxial package integrated with a receptacle.

### Ordering Information (Standard version <sup>\*Note1</sup>)

Part No.	Wavelength (nm)	Explore Area (um)	Bandwidth (GHz)	Package	Pin Type
GPDR-2020DMD	1100~1650	75	2	D	M
GPDR-2020BMD	1100~1650	75	2	B	M
GPDR-2020DTD	1100~1650	75	2	D	T
GPDR-2020AMD	1100~1650	75	2	A	M
GPDR-2020EMD	1100~1650	75	2	E	M

\*Note1: For more ordering information, please refer the nomenclature and contact EPOTOLINK sales.

## Absolute maximum ratings

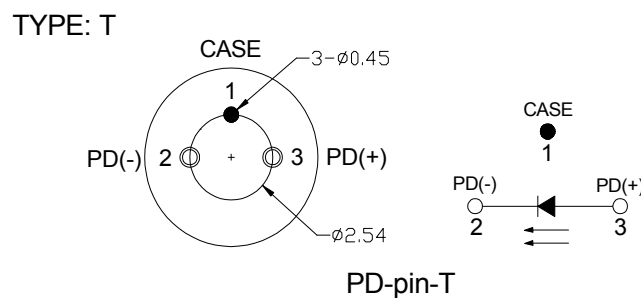
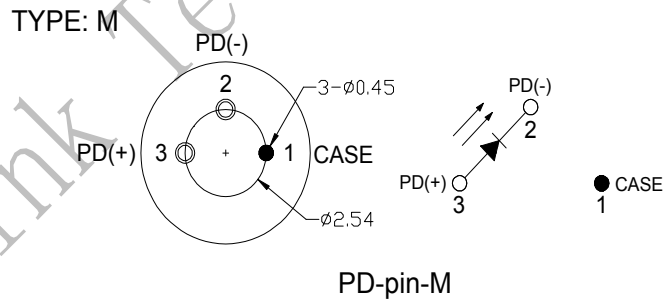
Parameter	Symbol	Min	Max	Unit
Storage Temperature	T <sub>ST</sub>	-40	100	°C
Operating Temperature	T <sub>OP</sub>	-40	85	°C
Reverse Voltage	VR	-	20	V
Saturation Input Power	P <sub>IN</sub>	-	10	dBm
Soldering Temperature / Time	Ts/t	-	260/10	°C/s

## Electrical and optical characteristics

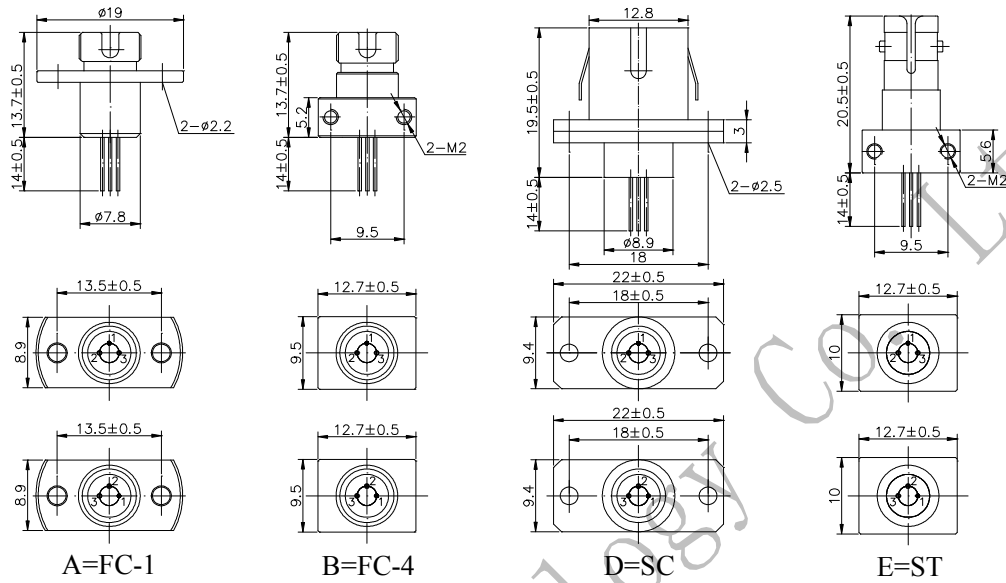
(V<sub>r</sub>=5V, SMF (9.5/125μm), T<sub>c</sub>=+25°C, unless otherwise noted.)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Detection Wavelength Range	λ		1100	-	1650	nm
Active Diameter	DA		-	75	-	μm
Responsivity	R	VR=-5V@1310nm	0.80	0.85	-	A/W
		VR=-5V@1550nm	0.85	0.90	-	A/W
Return Loss	RL		-	-	-40	dB
Dark Current	I <sub>d</sub>	VR = 5V	-	0.1	1	nA
Capacitance	C <sub>p</sub>	VR = 5V	-	0.6	1	pF
Bandwidth	BW	VR=5V	1.5	-	-	GHz

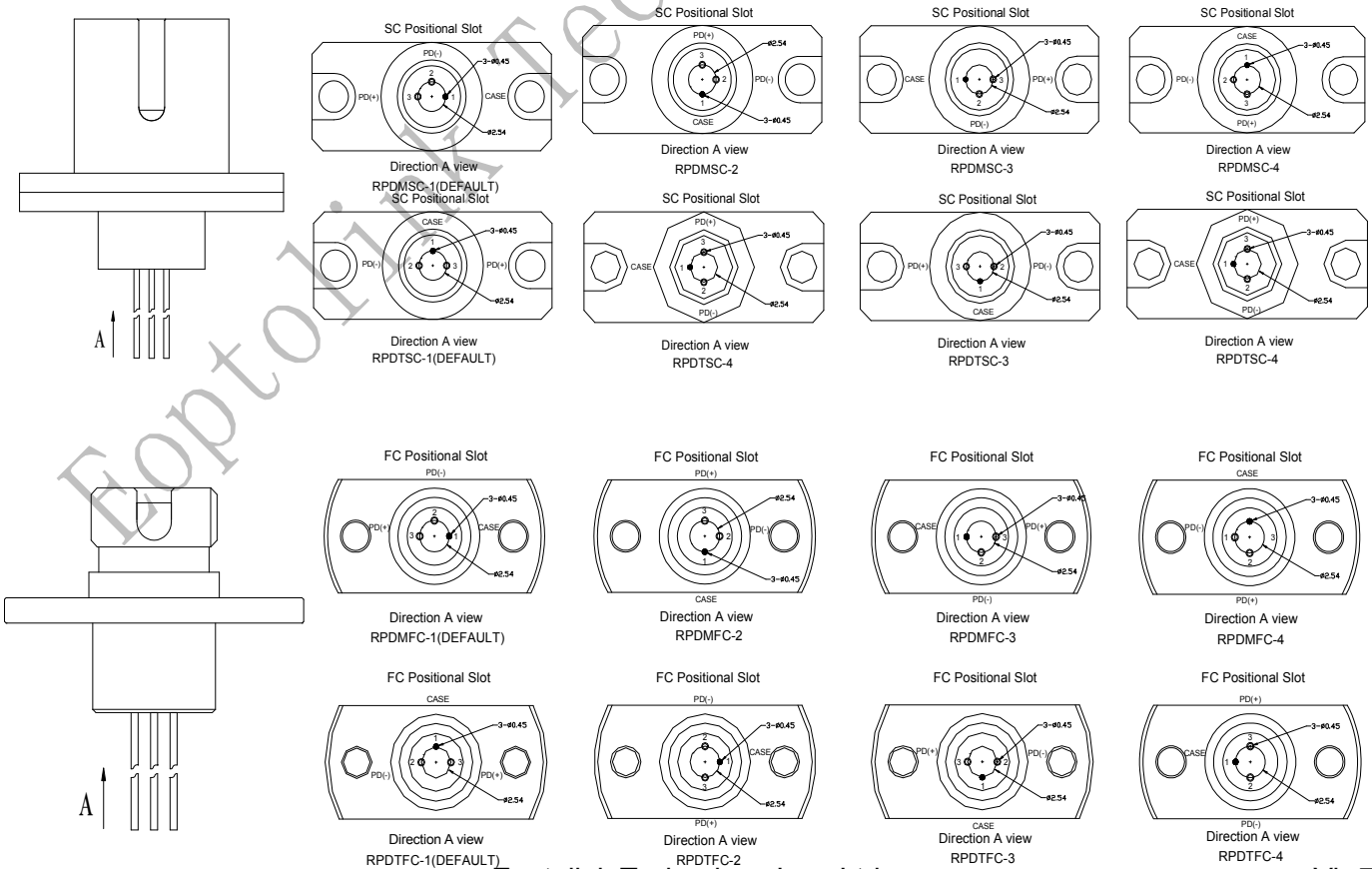
## Pin Assignment

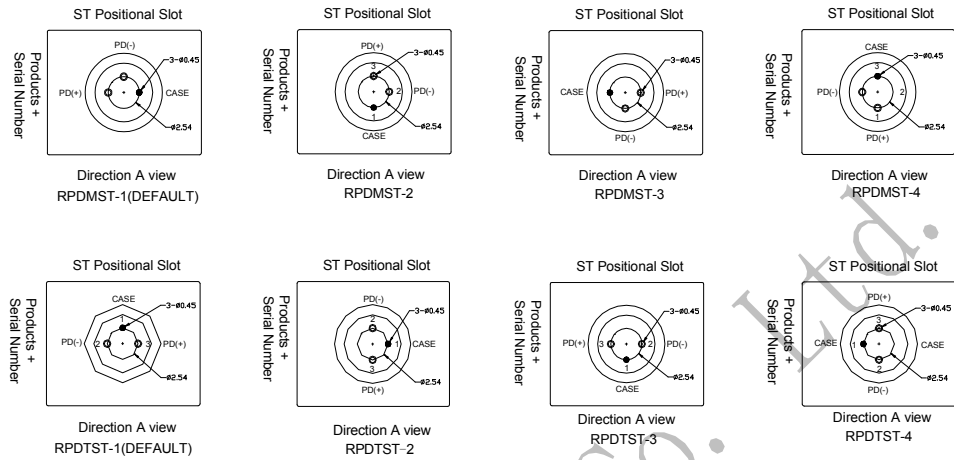
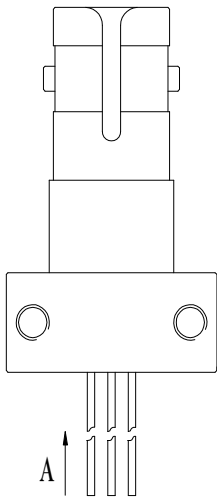


Receptacle Package series

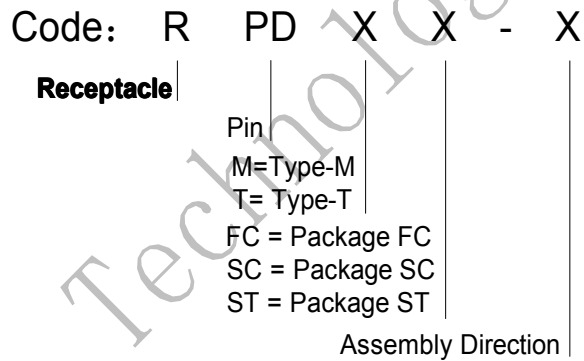


The direction of fix card



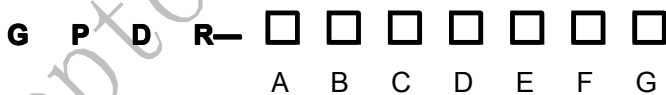


## Nomenclature of assembly direction <sup>\*Note2</sup>



\*Note2: Please designate the code of assembly direction.

## Ordering Information



<b>A</b>	<b>Wavelength</b>	20=1100~1610nm			
<b>B</b>	<b>Explore area</b>	1=50μm		2=75μm	
<b>C</b>	<b>RF Bandwidth</b>	0≤2GHz			
<b>D</b>	<b>Package series**Note3</b>	A=FC-1	B=FC-4	D=SCPD-Y-2	E=ST
<b>E</b>	<b>Pin Type</b>	M=PD-pin-M		T=PD-pin-T	
<b>F</b>	<b>TO Type</b>	D			
<b>G</b>	<b>Fiber diameter</b>	Blank=SM		M=MM	

\*Note3 \*Please refer the receptacle package series illustration.

## 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

Verision	Initiated	Reviewed	Approved	Revision History	Release Date
Vb-1	Yinchun, Zhao	Kelly.Cao		Released.	2008-6-10
Vb-2	Zhao	Kelly.Cao		Add polishing option.	2008-9-16
Vb-3	Jack.Jiang	Yinchun, Zhao		Add the length of the PIN	2011-8-5
Vb-4	Jack.Jiang	Kelly.Cao Yinchun, Zhao		Add the tolerance of length for screw hole to hole	2011-12-14
Vb-5	Jack.Jiang	Yinchun, Zhao		Add the distance of hole to hole for "D=SC"	2011-12-27
Vb-6	Jack.Jiang	Yinchun, Zhao		Changed the "Return Loss"	2012-9-5
Vb-7	Jack.Jiang	Yinchun, Zhao		Deleted the forward current	2013-5-29

**Notice:**

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