

## Long Wavelength PIN Photodiode (Receptacle Module)

### OSMPDR-20XXXXX

#### Features:

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



#### Applications:

- ◆ Optical Receiver
- ◆ Test Equipments

#### General:

OSMPDR-20XXXXX 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
OSMPDR-2021AM	1310~1550	75	2.7	A	M
OSMPDR-2022BM	1310~1550	75	3.2	B	M
OSMPDR-2022AM	1310~1550	75	3.2	A	M
OSMPDR-2022EM	1310~1550	75	3.2	E	M

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

### Absolute Maximum Ratings:

Parameter	Symbol	Min.	Max.	Unit
Storage Temperature	$T_{ST}$	-40	100	$^{\circ}C$
Operating Temperature	$T_{OP}$	-40	85	$^{\circ}C$
Reverse Voltage	VR	---	20	V
Saturation Input Power	$P_{IN}$	---	10	dBm
Soldering Temperature / Time	Ts/t	---	260/10	$^{\circ}C/s$

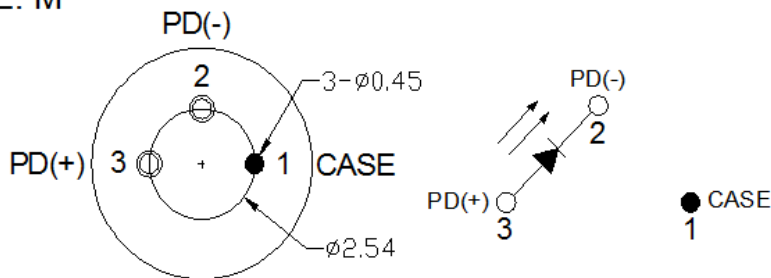
### Electrical and Optical Characteristics:

( $V_r=5V$ , SMF (9.5/125 $\mu m$ ),  $T_c=+25^{\circ}C$ , unless otherwise noted.)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Detection Wavelength Range	$\lambda$	---	1100	-	1650	nm
Active Diameter	DA	---	-	75	---	$\mu m$
Responsivity	R	VR=-5V@1310nm	0.80	0.85	---	A/W
		VR=-5V@1550nm	0.85	0.90	---	A/W
Return Loss	RL	---	---	-	-45	dB
Dark Current	$I_d$	VR = 5V	---	0.1	1	nA
Capacitance	$C_p$	VR = 5V	---	0.6	1	pF
Bandwidth	BW	VR=5V	---	---	3.2	GHz

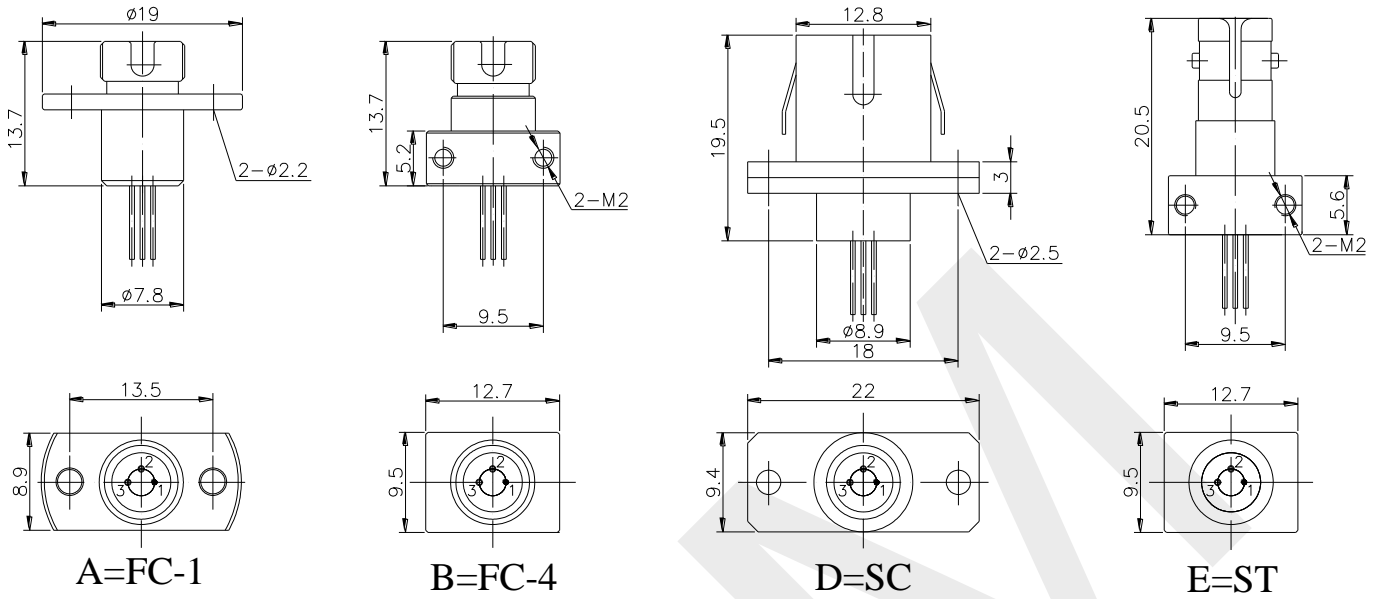
### Pin Assignment:

TYPE: M

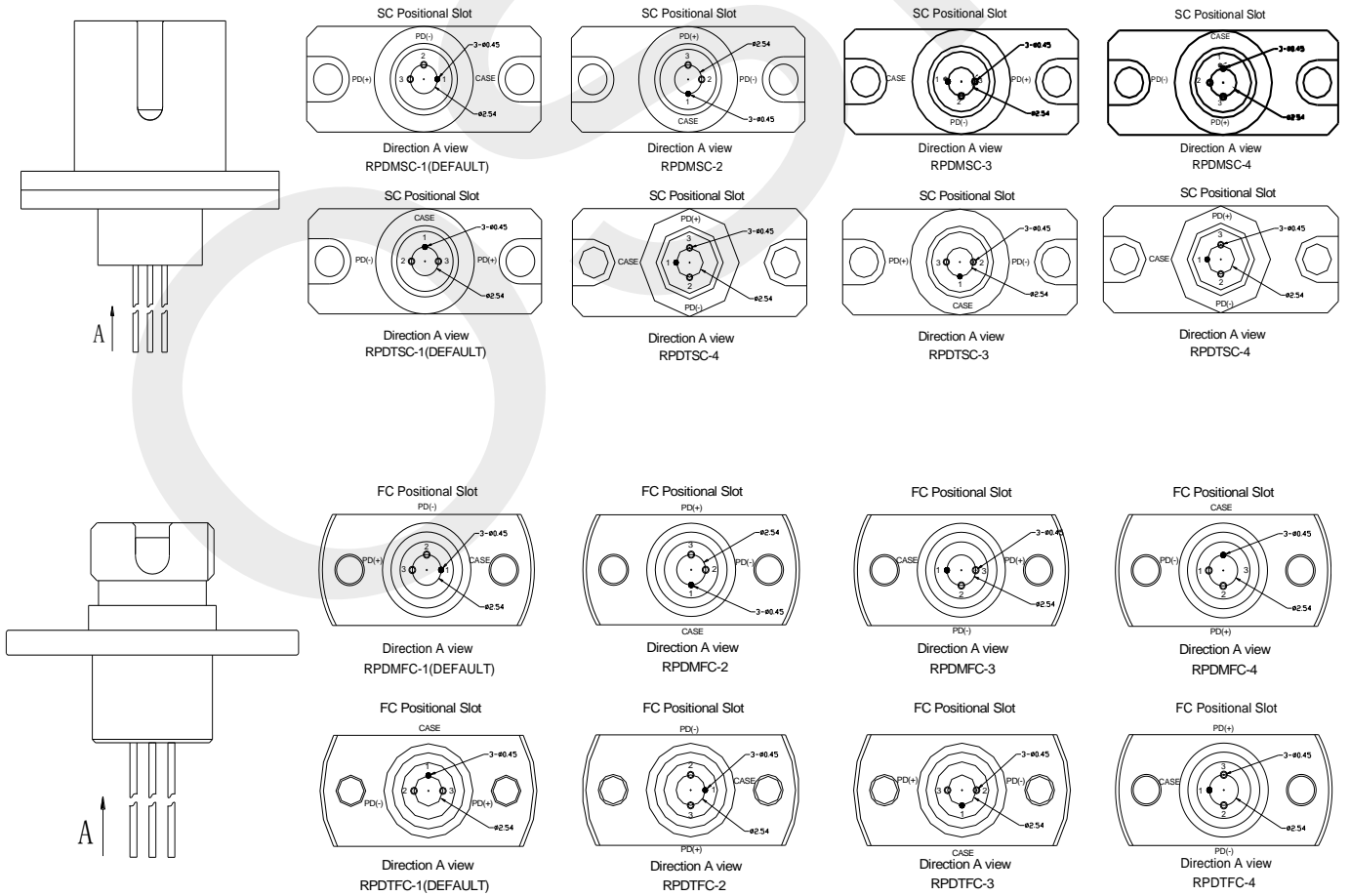


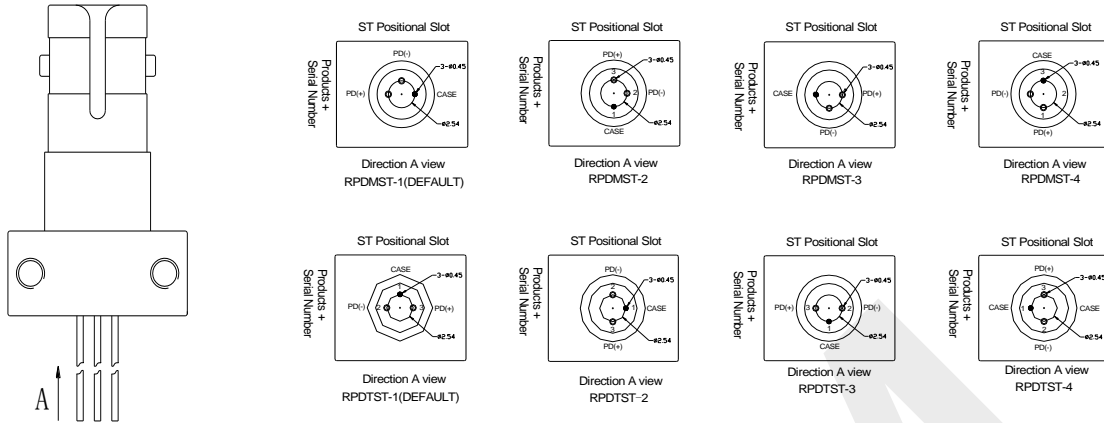
PD-pin-M

Receptacle Package Series:



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## Nomenclature:

OSMPDR-                 

A   B   C   D   E   F

<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>	1≤2.7GHz		2≤3.2GHz	
<b>D</b>	<b>Package Series</b> <sup>*Note2</sup>	A=FC-1/APC	B=FC-4/APC	D=SCPD-Y-2/APC	E=ST/PC
<b>E</b>	<b>Pin Type</b>	M=PD-pin-M			
<b>F</b>	<b>Fiber Diameter</b>	Blank=SM			

\*Note2 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.

## Notice:

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