

Long Wavelength PIN Photodiode Module for Wide Frequency-range CATV Receiver (Pigtail Module)

OSMPDP-2022XM



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
- ◆ Mini-Coaxial Package
- ◆ RoHS Compliant Products Available

Applications:

- ◆ Analog Optical Receiver
- ◆ Test Equipments

Absolute Maximum Ratings:

Parameter	Symbol	Min.	Max.	Unit
Storage Temperature	T_{ST}	-40	100	°C
Operating Temperature	T_{OP}	-40	85	°C
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:

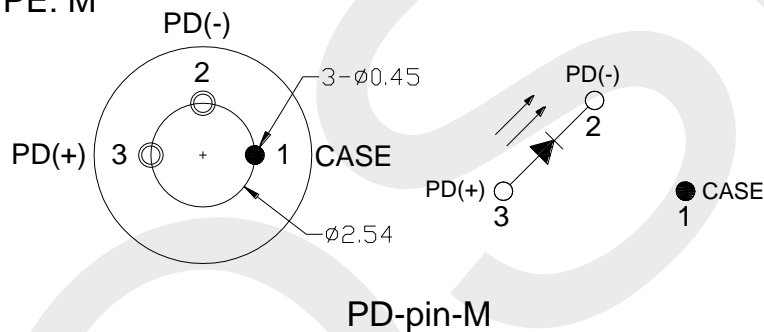
($V_r=5V$, $T_c=+25^\circ C$, unless otherwise noted.)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Detection Wavelength Range	λ	---	1100		1650	nm
Active Diameter	DA	---	---	75	---	μm
Responsivity	R	$V_R=-5V@1310nm$	0.80	0.85	---	A/W
		$V_R=-5V@1550nm$	0.85	0.90	---	A/W
Return Loss	RL	---	---	---	-45	dB
Dark Current	I_d	$V_R = 5V$	---	0.1	1	nA
Capacitance	C_p	$V_R = 5V$	---	0.6	0.7	pF
Bandwidth	BW	$V_R=5V$	---	3.2	---	GHz
IMD2	CSO	$\lambda=1310nm$ (*Note1)	---	-75	-70	dBc
IMD3	CTB		---	-85	-80	dBc

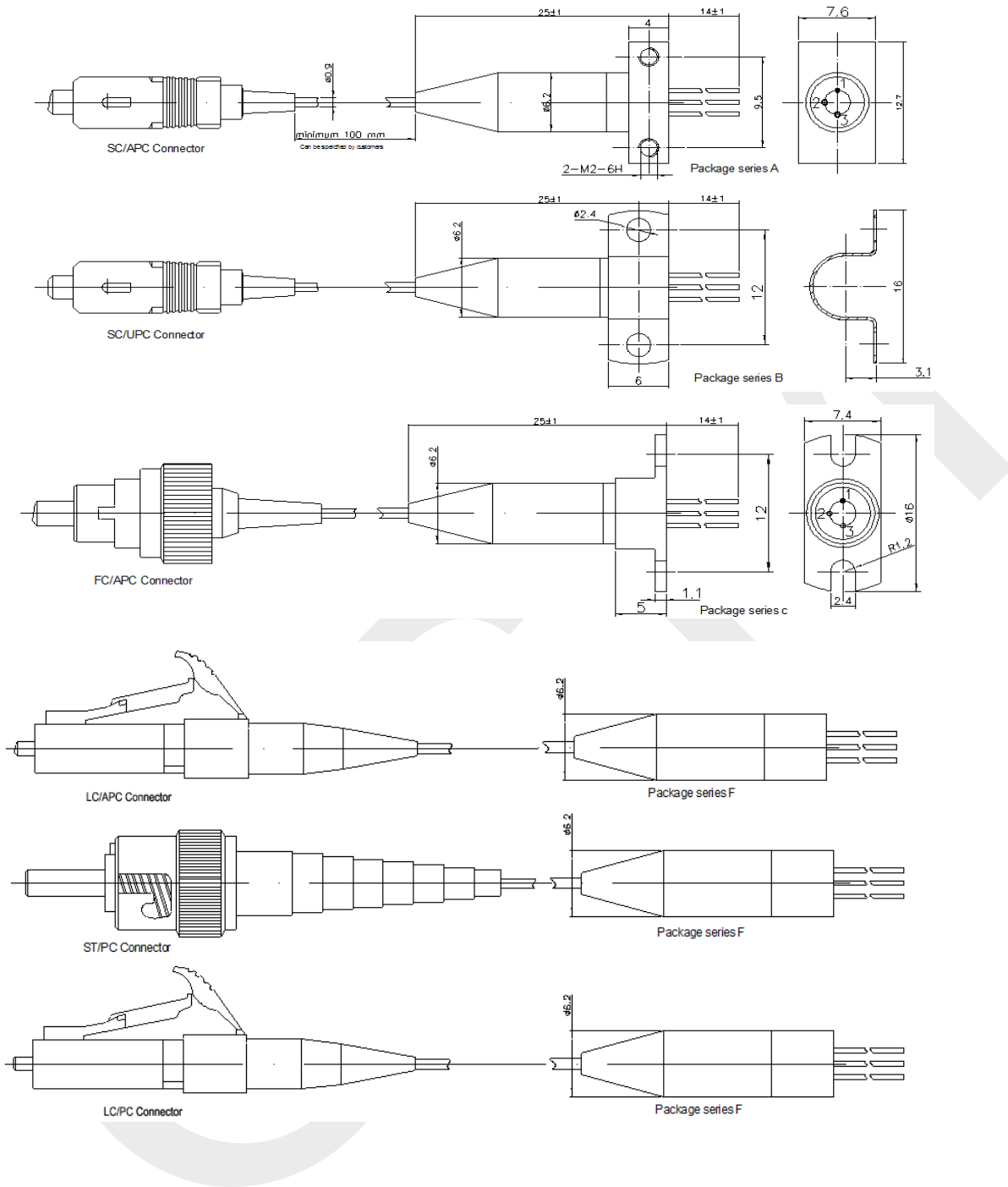
*Note1: IMD2 measured at $V_R=12V$, $\lambda=1550nm$, $P_{avg}=0dBm$, $MI=0.7$, $R = 50 \Omega$, $f_1+f_2=850MHz$, $f_1-f_2=50MHz$ (Test frequency: $f_1=450MHz$, $f_2=400MHz$). All are measured at $25^\circ C$

Pin Assignment:

TYPE: M



Pigtail Package Dimension: *Note2、3、4



*Note2: PIN direction and laser mark can be customized. Pigtail is standard SM fiber; the length also can be customized.

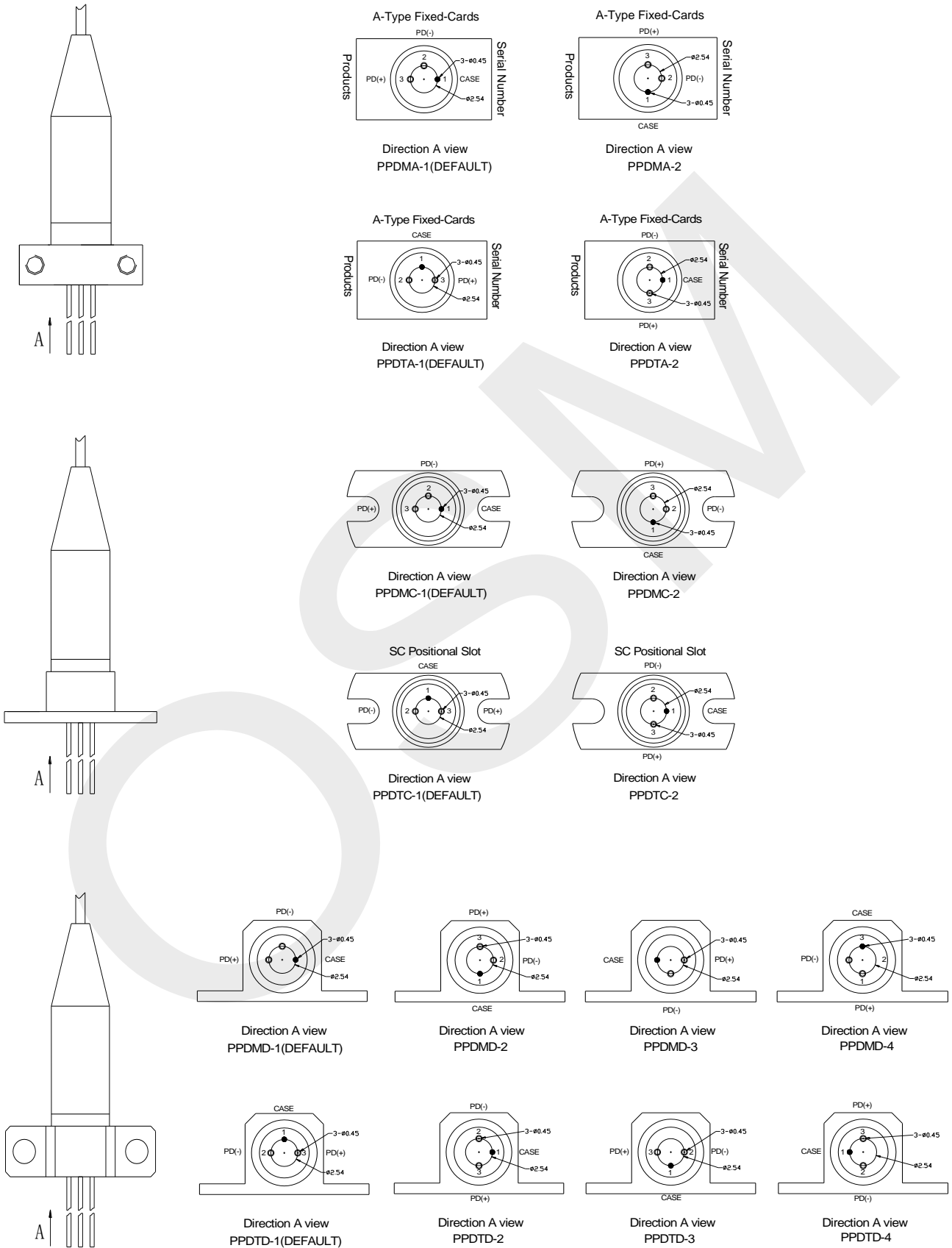
*Note3: For the package series D, the clamping rings dimensions (A) and drill size (B) are can be selected. The following types can be available. Please designate the detailed type while ordering the package series D.

Fixed card type	A(mm)	B(mm)
D	16	12
D-S	17	12.7

*Note4: For the package series B, the fix card is fixed by customer self. For the detailed information of fix card of

A, C, D package series, please refers the following graphs.

The Direction of Fix Card:



Nomenclature:

OSMPDP-□ □ □ □ □ □ □ □
 A B C D E F G H

A	Wavelength	20=1100~1610nm			
B	Explore Area	2=75μm			
C	RF Bandwidth	2≤3.2GHz			
D	Connector	F=FC/PC	S=SC/PC	T=ST/PC	L=LC/PC
E		SA=SC/APC	FA=FC/APC	LA=LC/APC	N=None
	Pin Type	M=PD-pin-M			
F	Pass Band Wavelength	Blank=1310/1550nm	3=1310nm	5=1550nm	
G	Fiber Type	Blank=SM			
H	Fiber Diameter	BLANK=0.9mm	2=2.0mm	3=3.0mm	

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.

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