

2.5G PIN-TIA Receiver Modules

OSMPTR-91XXX

Features:

- ◆ High sensitivity
- ◆ Differential ended output
- ◆ Single +3V、+5V、3.3/5V operation
- ◆ Trans-impedance amplifier with AGC
- ◆ RoHS Compliant products available



Applications:

- ◆ 2.5G Bit Rate application
- ◆ Fast Ethernet receiver/transceiver application

General:

OSMPTR-91XXXX Series is a TO-based 2.5G, 4 pin or 5 pin PIN-TIA. It provides high sensitivity with AGC and 100ohm differential outputs. A photodiode is mounted into a low capacitance coaxial package integrated with a receptacle.

Ordering Information: (Standard version ^{*Note1})

Part No.	Wavelength (nm)	Voltage (V)	Package	Pin Type	Insulation
OSMPTR-9130AJ	1270~1620	3.3	A	A	Y
OSMPTR-915DB	1270~1620	5	B	D	N
OSMPTR-9150E	1270~1620	5	E	A	N
OSMPTR-9130FJ	1270~1620	3.3	F	A	Y

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

Absolute Maximum Ratings:

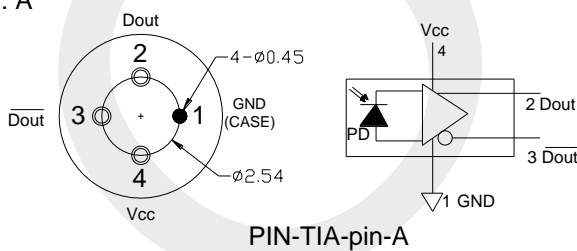
Parameter	Min.	Typ.	Max.	Unit
Storage Temperature	-40	25	85	°C
Operating Temperature	-40	25	85	°C
TIA Supply Voltage	3.1	3.3	3.5	V
	4.5	5	5.5	
PD Reverse Voltage	-		15	V
Operation Relative Humidity	-		85	%
Soldering Temperature / Time	-		260/10	°C/s

Electrical and Optical Characteristics:

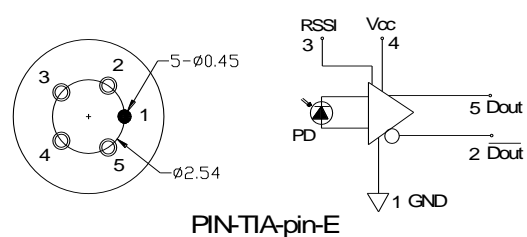
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Operating Wavelength	λ	1270		1620	nm	
Supply Current	I _{cc}			40	mA	No Loads
Saturation Power	P _{sat}	-3	0	-	dBm	VR=5V, 25°C
Small-Signal Bandwidth	BW	1.65			MHz	at -3dBm
Sensitivity			-23	-21	dBm	=1310nm, 2.5G, BER=10 ⁻¹⁰ @ PRBS= 2 ²³ -1
Output Resistance	R _o		50		Ω	
Rise /Fall Time	T			4.5		10~90%

Pin Assignment: ^{*Note2}

TYPE: A

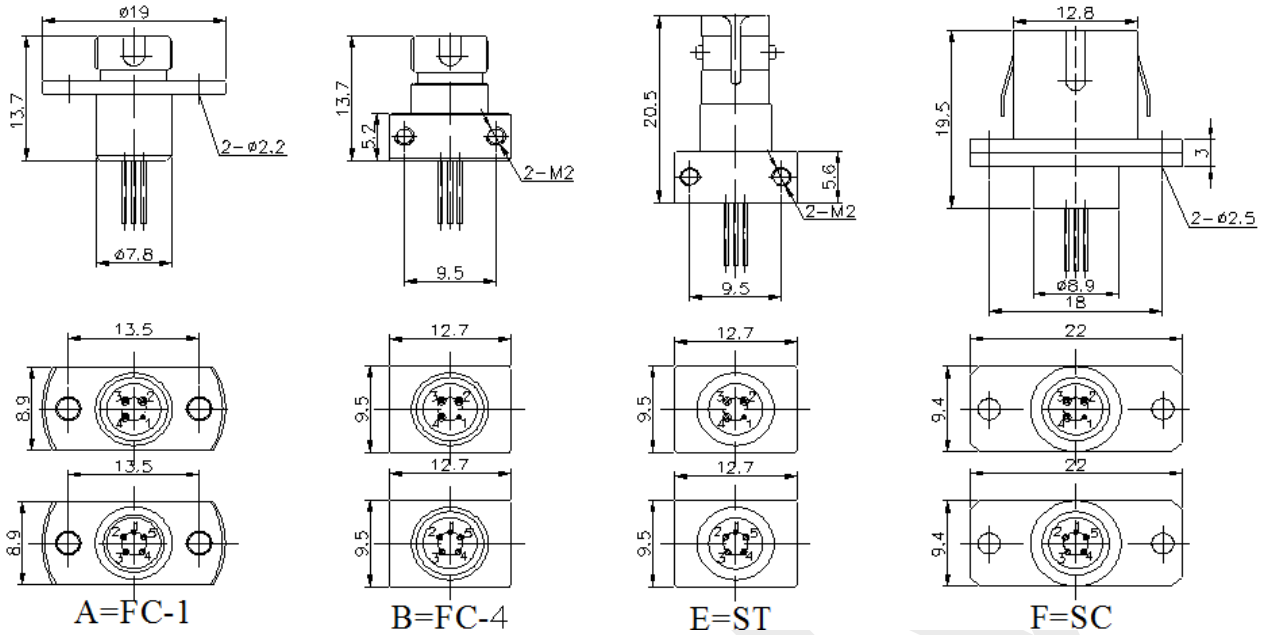


TYPE: E

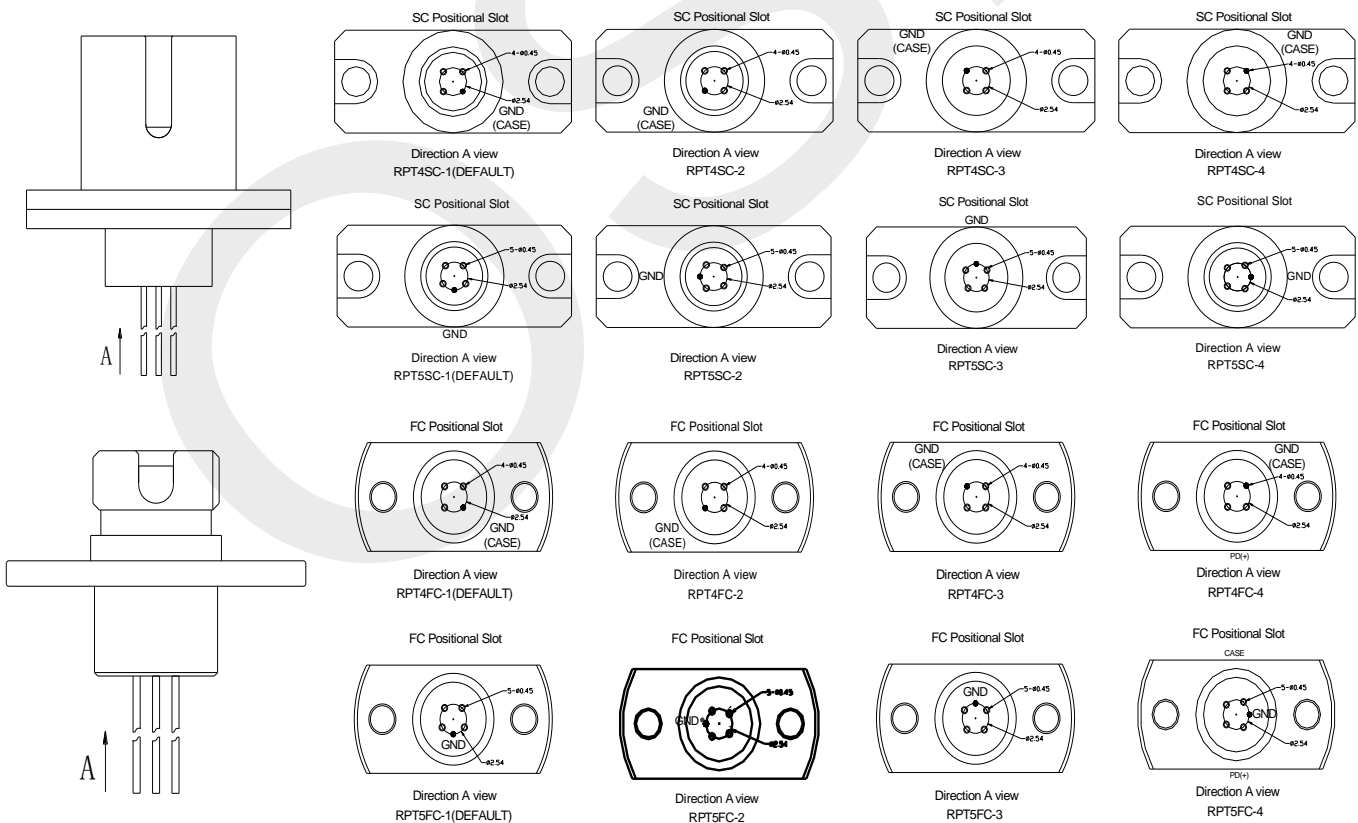


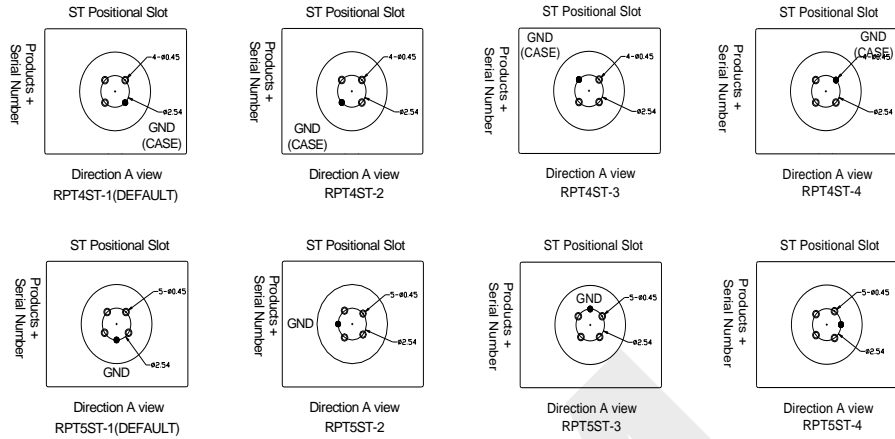
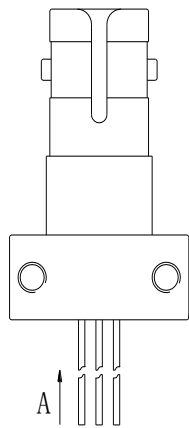
Note2: Other Pin type can be customized.

Receptacle Package Series:



The Direction of Fix Card:





Nomenclature:

OSMPTR—
 A B C D E F

A	Data Rate	9=2.5G			
B	Wavelength	1=1270~1620nm			
C	Voltage	3=3.3V	5=5V	0=3.3/5V	
D	Pin Type	0= pin-A		E= pin-E	
E	Package Series	A=FC-1	B=FC-4	E=ST	F=SC
F	Insulation	Blank=NO Insulation		J= Insulation	

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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