622M PIN-TIA Receiver with Pigtail Modules

OSMPTP-51XXXX

Features:

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

Applications:

- 435M application
- 622M application

General:

OSMPTP-51XXXX Series is a 4 pin PIN-TIA with pigtail operating on 622M. It provides high sensitivity with AGC and 100ohm differential outputs.

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

Ordering Information: (Standard version *Note1)

Part No.	Wavelength (nm)	Voltage (V)	Package	Pin Type	Connector
OSMPTP-5130AF	1270～1620	3.3	A	A	FC/PC
OSMPTP-5150BSA	1270～1620	5	B	A	SC/APC
OSMPTP-5100CT	1270～1620	3.3/5	C	A	ST/PC
OSMPTP-5100DS	1270～1620	3.3/5	D	A	SC/PC
OSMPTP-5150EFA	1270～1620	5	E	A	FC/APC

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

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FAX: +86-28-64570369
E-mail: sales@osemos.com http://www.osemos.com

Absolute Maximum Ratings:

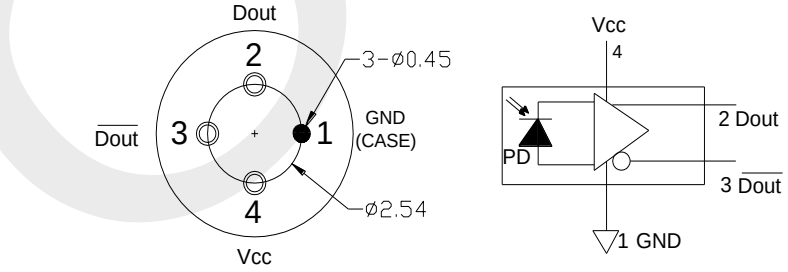
Parameter	Min.	Typ.	Max.	Unit
Storage Temperature	-40	25	100	℃
Operating Temperature	-40	25	85	℃
TIA Supply Voltage	3.1	3.3	3.5	V
	4.5	5	5.5	
Operation Relative Humidity	-		85	%
Soldering Temperature / Time	-		260/10	°C/S

Electrical and Optical Characteristics:

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Operating Wavelength	λ	1270		1620	nm	
Supply Current	Icc			40	mA	No Loads
Saturation Power	Psat	-3	0	-	dBm	1330nm, VR=5V,25°C
Bandwidth	BW	435			MHz	Pf=-3dBm
Single Ended Output Impedance	R	40	50	60	ohm	
Sensitivity			-32	-30	dBm	1310nm,622M, BER=10^{-10}@ PRBS= 2^{23}-1
Low-Frequency Cut off	LF			5	kHz	
Rise /Fall Time	tr/tf			4.5	ns	10～90%

Pin Assignment: *Note2

TYPE: A



PIN-TIA-pin-A

Note2: Other Pin type can be customized.

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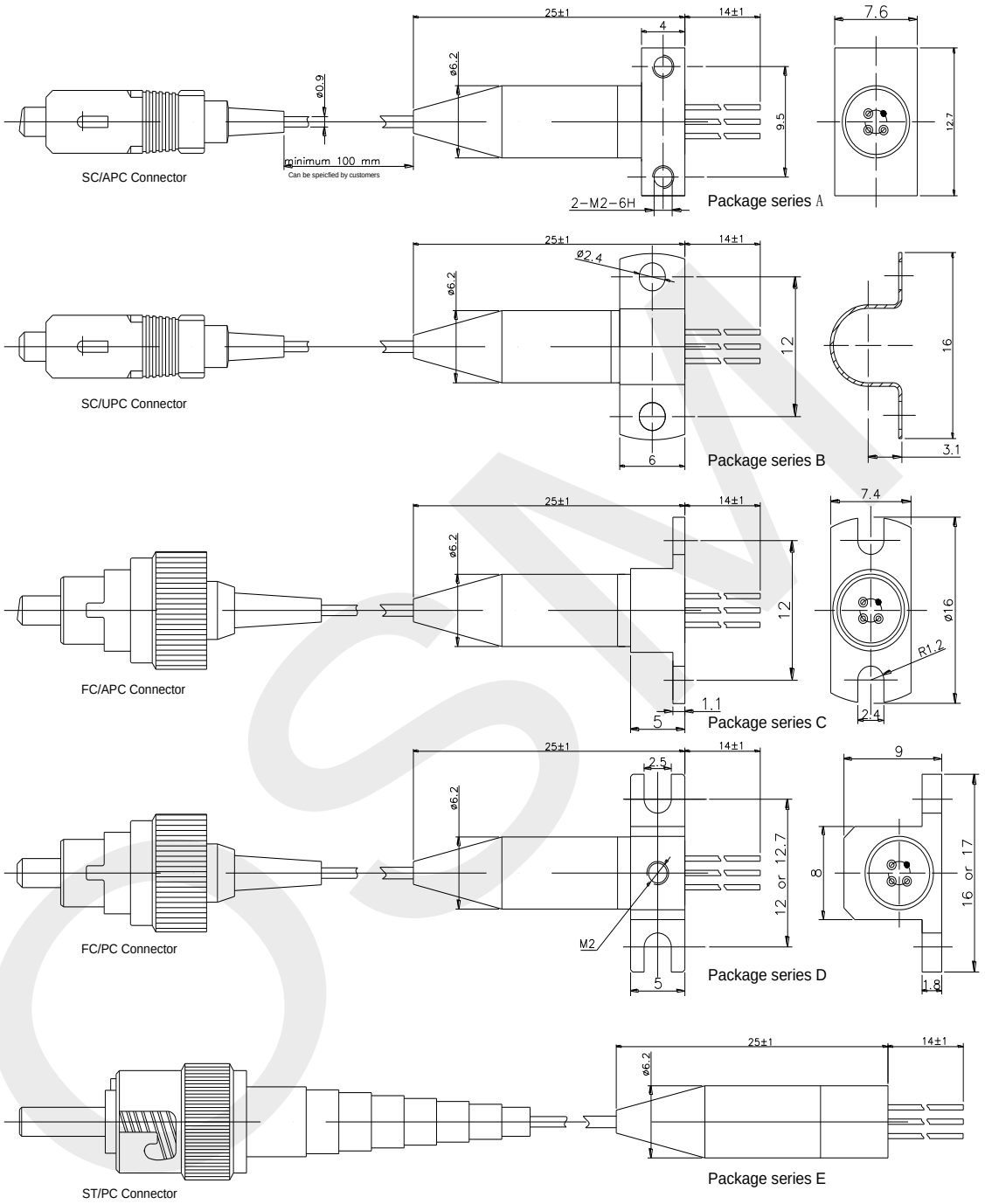
Pigtail Package Dimension: *Note3、4、5



*Note3: PIN direction and laser mark can be customized. Pigtail is standard SM fiber; the length also can be customized.

*Note4: 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

*Note5: For the package series B, the fix card is fixed by customer self. For the detailed information of fix card of

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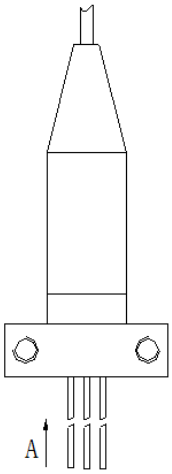
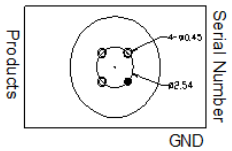
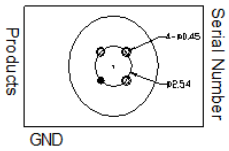
A, C, D package series, please refers the following graphs.

The Direction of Fix Card:

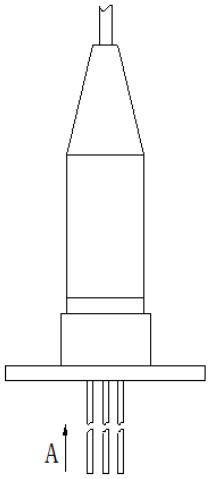


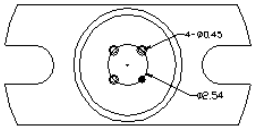


Direction A view
PPT4A-1(DEFAULT)

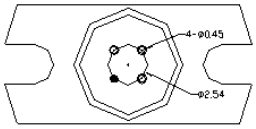


Direction A view
PPT4A-2

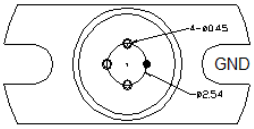




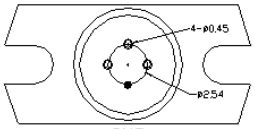
Direction A view
PPT4C-1(DEFAULT)



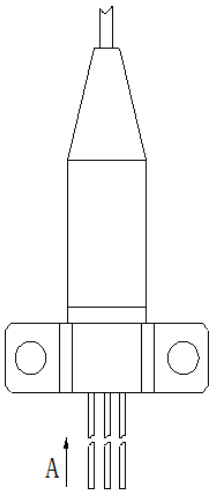
Direction A view
PPT4C-2

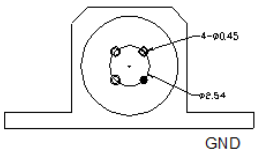


Direction A view
PPT4C-3

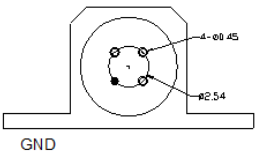


Direction A view
PPT4C-4

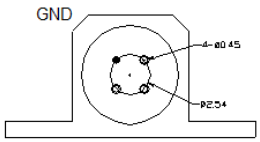




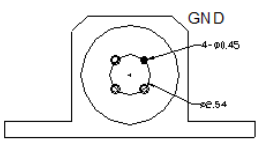
Direction A view
PPT4D-1(DEFAULT)



Direction A view
PPT4D-2



Direction A view
PPT4D-3



Direction A view
PPT4D-4

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Nomenclature:

OSMPTP—□ □ □ □ □ □ □

A B C D E F G

A	**Data Rate**	5=622M				
B	**Wavelength**	1=1270～1620nm				
C	**Voltage**	3=3.3V		5=5V		0=3.3/5V
D	**Pin Type**	0= pin-A				
E	**Package Series**	A	B	C	D	E
F	**Connector**	F=FC/PC	S=SC/PC	T=ST/PC	SA=SC/APC	
		FA=FC/APC		L=LC/PC	Blank=None	
G	**Fiber Type**	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.

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