

3G PIN-TIA Receiver with Pigtail Modules

OSMPTP-T13EXX



Features:

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

Applications:

- ◆ 3.125G application
- ◆ SDH/SONET application

General:

OSMPTP-A13EXX Series is a 5 pin PIN-TIA with pigtail operating on 3G. It provides high sensitivity with AGC, 100ohm differential outputs and the 5 pin PIN-TIA provides a monitor pin. 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-A13EAF	1100~1650	3.3	A	E	FC/PC
OSMPTP-A13EBSA	1100~1650	3.3	B	E	SC/APC
OSMPTP-A13ECT	1100~1650	3.3	C	E	ST/PC
OSMPTP-A13EDL	1100~1650	3.3	D	E	LC/PC
OSMPTP-A13EES	1100~1650	3.3	E	E	SC/PC

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

Absolute Maximum Ratings: *Note2

Parameter	Min.	Typ.	Max.	Unit
Storage Temperature	-40	25	100	°C
Operating Temperature	-40	25	85	°C
TIA Supply Voltage	3.0	3.3	3.6	V
Operation Relative Humidity	-		85	%
Soldering Temperature / Time	-		260/10	°C/S

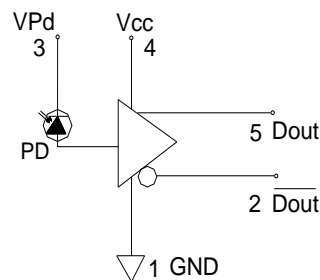
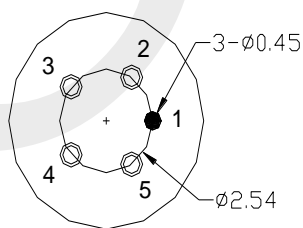
*Note2: Exceeding any one of these values may destroy the device permanently.

Electrical and Optical Characteristics:

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Operating Wavelength	λ	1100	1310	1650	nm	
Supply Current	I _{cc}		42	50	mA	V _{cc} =3.3V
Output Voltage(Differential)	V _{op}	150	280		mV	R _L =100Ω
High Frequency Bandwidth (-3dBm)	BW	1.8	3.4		GHz	R _L =50Ω
Low Frequency Bandwidth	BW1		500	750	Hz	R _L =50Ω
Sensitivity	S		-22	-21	dBm	λ =1310nm, Speed=3G PRBS=2 ²³ -1, BER=10 ⁻¹² , ER=7.0dB
Overload Power	P _{load}	0			dBm	PRBS=2 ²³ -1, BER=10 ⁻¹² , ER=7.0dB
Rise /Fall Time	T		150/150		ps	20~80%
Optical Power	P _{in}			5	dBm	

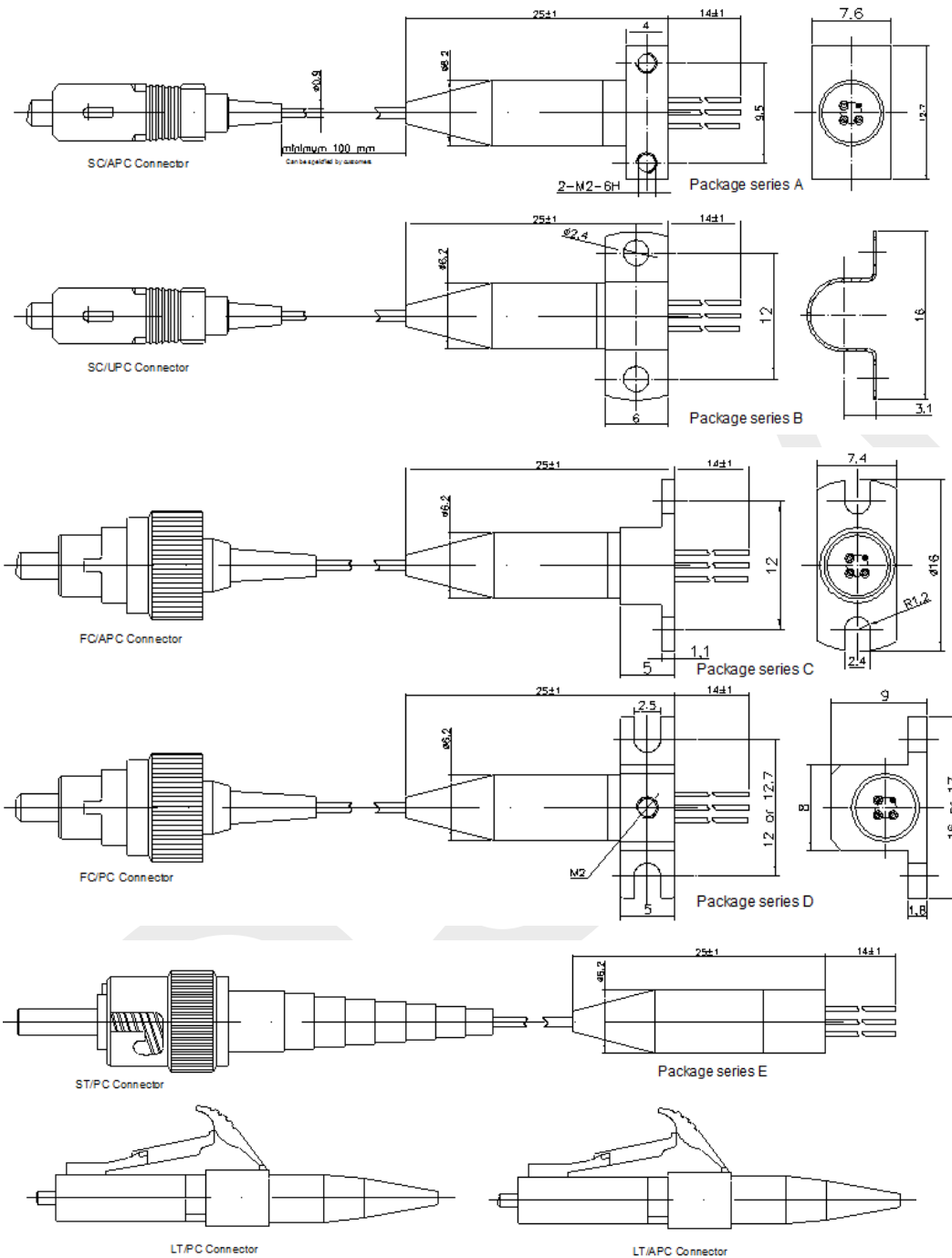
Pin Assignment: *Note3

'E: D



Note3: Other Pin type can be customized.

Pigtail Package Dimension: *Note4、 5、 6



*Note4: PIN direction and laser mark can be customized. Pigtail is standard SM fiber; the length also can be customized.

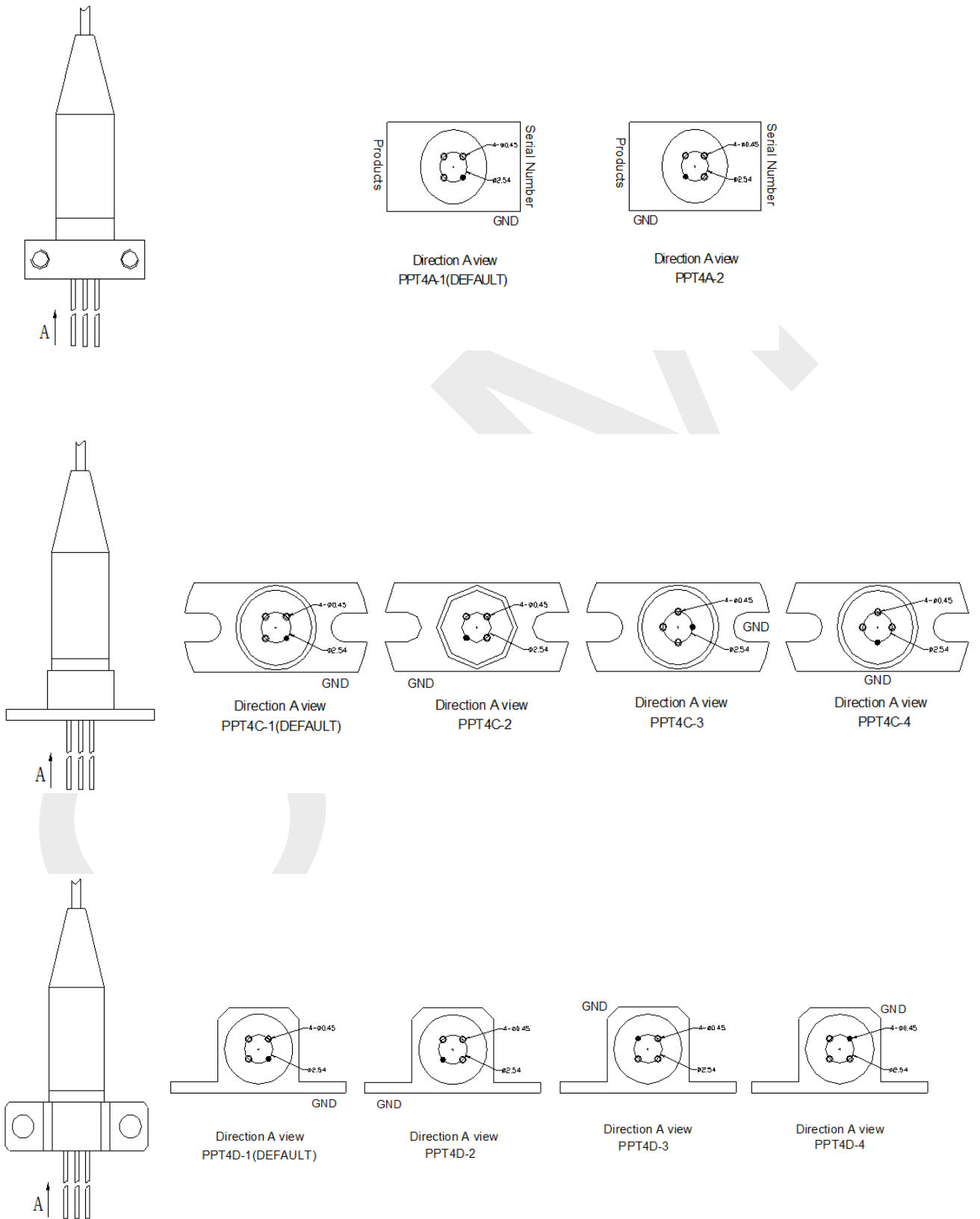
*Note5: For the package series D, the clamping rings dimensions (A) and drill size (B) are can be selected. The following types can be available. Please designate the detailed type while ordering the package series D.

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

*Note6: 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:

OSMPTP—□ □ □ □ □ □ □
 A B C D E F G

A	Data Rate	T=3.125G							
B	Wavelength	1=1100~1650nm							
C	Voltage	3=3.3V							
D	Pin Type	E= pin-E							
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.

Notice:

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