

# GPTP-913xxx

## 2.5Gbps PIN-TIA Receiver With Pigtail Modules



### Features

- ◆ High sensitivity
- ◆ Differential ended output
- ◆ Single +3.3 operation
- ◆ Trans-impedance amplifier with AGC
- ◆ RoHS Compliant Products Available

### Applications

- ◆ 2.5Gbps application
- ◆ SDH/SONET application

### General

GPTP-913xxx Series is a 4 pin or 5 pin PIN-TIA with pigtail operating on 2.5Gbps. 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 <sup>\*Note1</sup>)

Part No.	Wavelength (nm)	Voltage (V)	Package	Pin Type	Connector
GPTP-9130AF	1270~1620	3.3	A	A	FC/PC
GPTP-913DBSA	1270~1620	3.3	B	D	SC/APC
GPTP-913DCT	1270~1620	3.3	C	D	ST/PC
GPTP-913EDS	1270~1620	3.3	D	E	SC/PC
GPTP-9130ES	1270~1620	3.3	E	A	SC/PC

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

## Absolute maximum ratings <sup>\*Note2</sup>

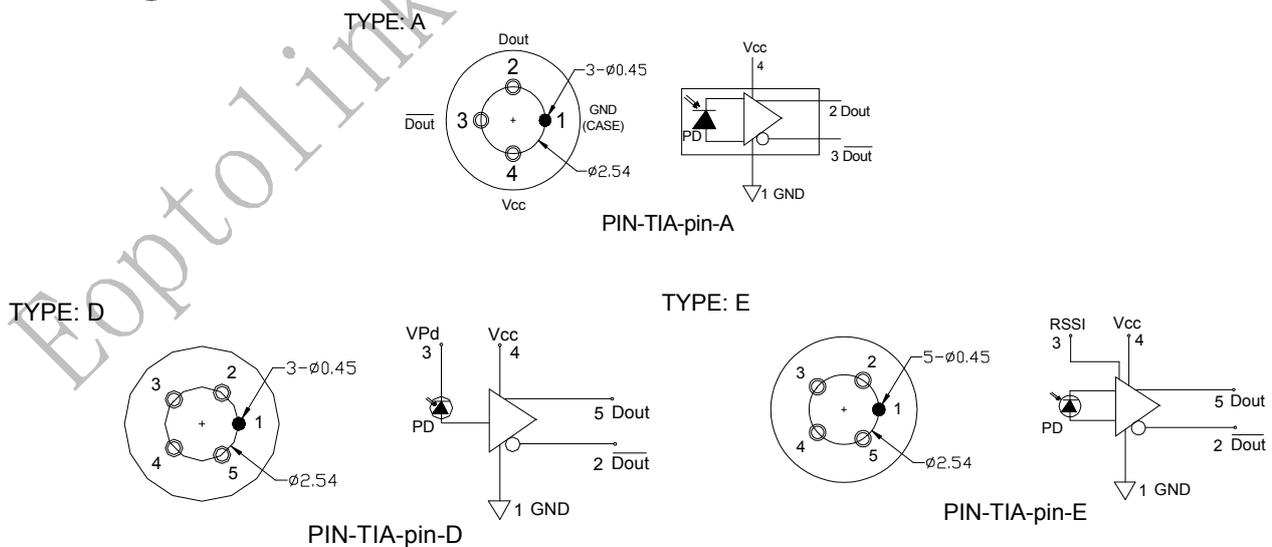
Parameter	Min	Typ.	Max	Unit
Storage Temperature	-40	25	85	°C
Operating Temperature	-40	25	85	°C
TIA Supply Voltage	3.1	3.3	3.5	V
Operation Relative Humidity	-	-	85	%
Soldering Temperature / Time	-	-	260/10	°C/S

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

## Electrical and optical characteristics

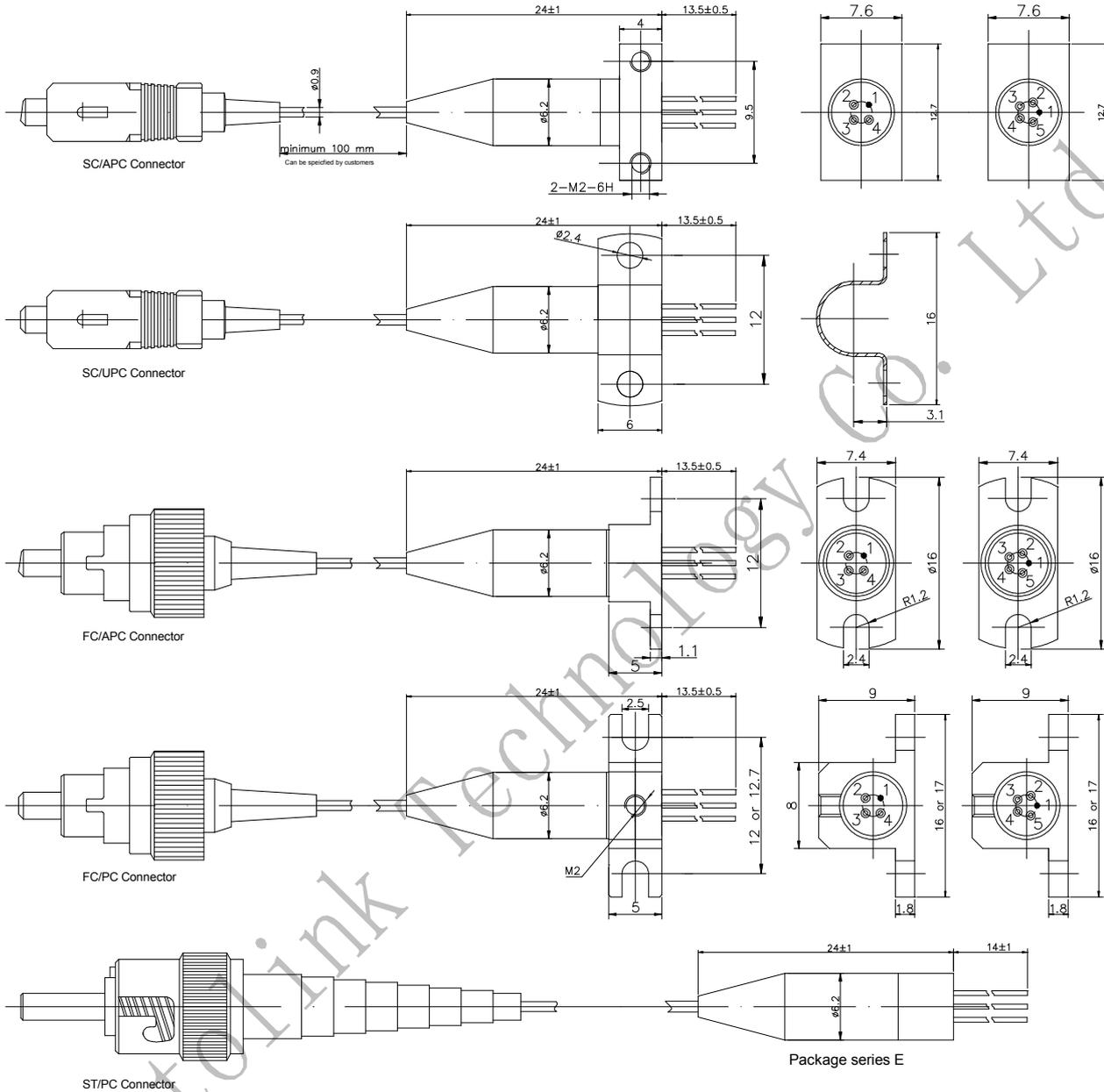
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Operating Wavelength	$\lambda$	1270		1620	nm	
Supply Current	I <sub>cc</sub>		40	60	mA	No Loads
Saturation Power	P <sub>sat</sub>	-3	0	-	dBm	@ 1310nm
Small-Signal Bandwidth	BW	1.65			GHz	
Low-Frequency Cut off	LF			5	kHz	
Sensitivity			-23	-21	dBm	I 1310nm, 2.5Gbps, ER=10@ PRBS= 2 <sup>23</sup> -1, BER=1E-10
Single Ended Output Impedance	R	40	50	60	$\Omega$	
Rise /FallTime	T		0.15	0.2	ns	20~80%

## Pin Assignment <sup>\*Note3</sup>



Note3: Other Pin type can be customized.

## Pigtail Package dimension \*Note3· 4· 5



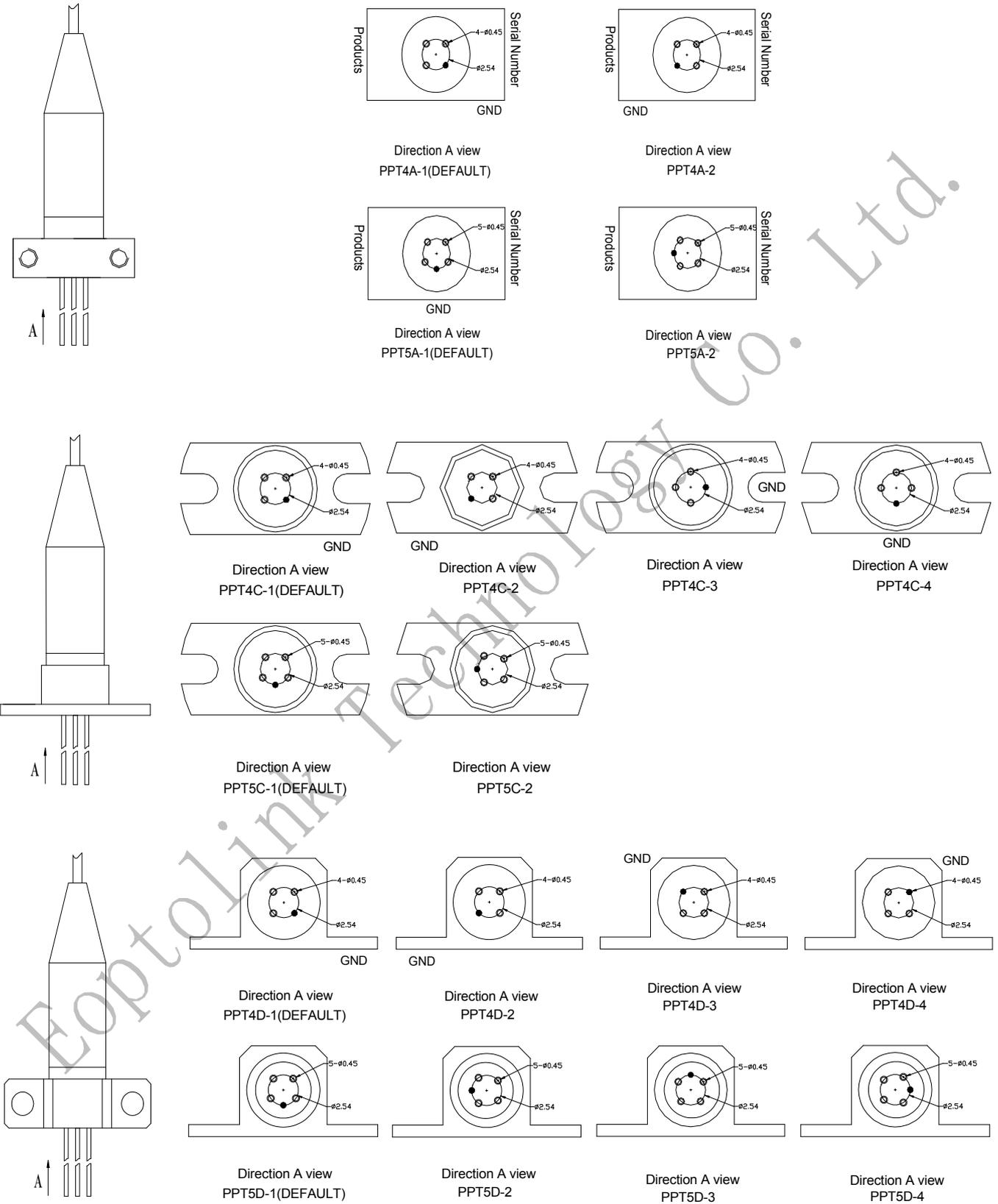
\*Note3: PIN direction and laser mark can be customized. Pigtail is standard SM fiber; the length also can be customized.

\*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.

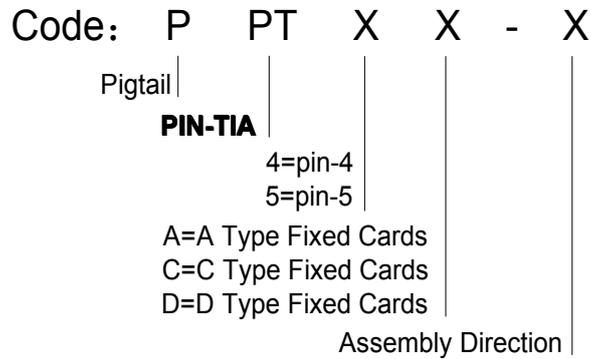
Fixed card type	A(mm)	B(mm)
D	16	12
D-S	17	12.7

\*Note5: For the package series B, the fix card is fixed by customer self. For the detailed information of fix card of A, C, D package series, please refers the following graphs.

**The direction of fix card**



## Nomenclature of assembly direction \*Note6



\*Note6: Please designate the code of assembly direction.

## Nomenclature



<b>A</b>	<b>Date rate</b>	9=2.5Gbps			
<b>B</b>	<b>Wavelength</b>	1=1270~1620nm			
<b>C</b>	<b>Voltage</b>	3=3.3V			
<b>D</b>	<b>Pin Type</b>	0= pin-A	D= pin-D	E= pin-E	
<b>E</b>	<b>Package series</b>	A	B	C	E
<b>F</b>	<b>Connector</b>	F=FC/PC	S=SC/PC	T=ST/PC	SA=SC/APC
		FA=FC/APC	L=LC/PC		Blank=None
<b>G</b>	<b>Fiber Type</b>	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 guarant.

## Obtaining Document

You can visit our website:

<http://www.eoptolink.com>

Or contact Eoptolink Technology Inc., Ltd. listed at the end of the documentation to get the latest documentation.

## Revision History

Verision	Initiated	Reviewed	Approved	Release Date
Va-6	Zore.Zhao	Kelly.Cao Cathy.chen		2010-12-10
Vb-1	jack.jiang	Kelly.Cao Yinchun.Zhao		2011-6-10

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## Contact:

Add: Floor 5, Building 2, No. 21 Gaopeng Avenue, High-Tech District, CHENGDU, SICHUAN 610041 P.R.

CHINA

Tel: (+86) 028-85122709 ext 816 & 809

Fax: (+86) 028-85121912

Postal: 610041

E-mail: sales@eoptolink.com

<http://www.eoptolink.com>