

GPTP-31XXXX

155Mbps PIN-TIA Receiver With Pigtail Modules



Features

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

Applications

- ◆ 100Mbps application
- ◆ 155Mbps application

General

GPTP-31XXXX Series is a 4 pin PIN-TIA with pigtail operating on 155Mbps. 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
GPTP-3130AF	1270~1620	3.3	A	A	FC/PC
GPTP-3150BSA	1270~1620	5	B	A	SC/APC
GPTP-3100CT	1270~1620	3.3/5	C	A	ST/PC
GPTP-3100DS	1270~1620	3.3/5	D	A	SC/PC
GPTP-3150EFA	1270~1620	5	E	A	FC/APC

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

Absolute maximum ratings

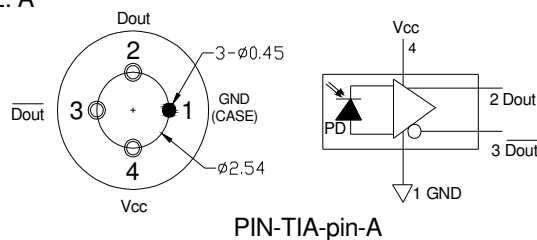
Parameter	Min	Typ.	Max	Unit
Storage Temperature	-40	25	100	□
Operating Temperature	-40	25	85	□
TIA Supply Voltage	3.1	3.3	3.5	V
	4.5	5	5.5	
Operation Relative Humidity	-		85	%
Soldering Temperature / Time	-		260/10	°C/s

Electrical and optical characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Operating Wavelength	λ	1270		1620	nm	
Supply Current	I _{cc}			40	mA	No Loads
Saturation Power	Psat	-3	0		dBm	1330nm, VR=5V, 25°C
Bandwidth	BW	115	155		MHz	Pf=-3dBm
Single Ended Output Impedance	R	40	50	60	ohm	
Sensitivity			-37	-36	dBm	□ 1300nm, 155Mbps, BER=10 ⁻¹⁰ @ PRBS=2 ²³ -1
Low-Frequency Cut off	LF			5	kHz	
Rise /FallTime	tr/tf			0.55	ns	10~90%

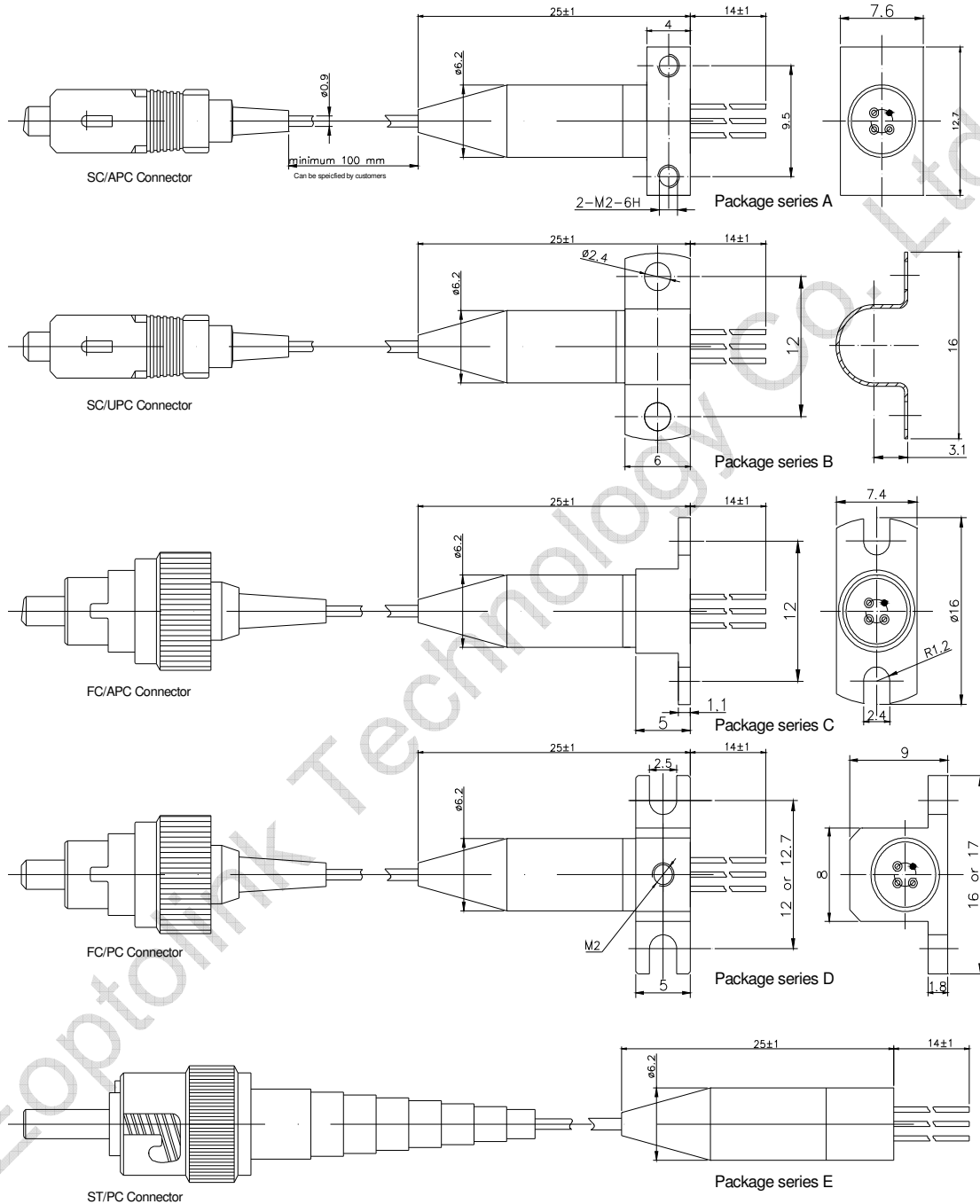
Pin Assignment ^{Note2}

TYPE: A



Note2: 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.

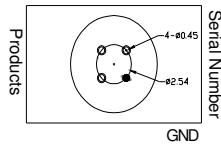
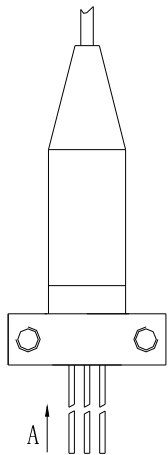
*Note4: For the package series D, the clamping rings dimensions (A) and drill size (B) are can be selected. The following types can be available. Please designate the detailed type while ordering the package series D.

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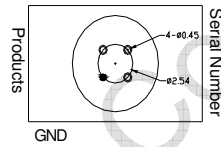
D	16	12
D-S	17	12.7

*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.

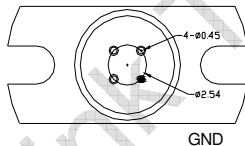
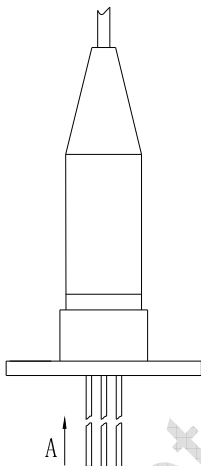
The direction of fix card



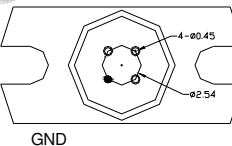
Direction A view
PPT4A-1(DEFAULT)



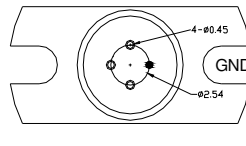
Direction A view
PPT4A-2



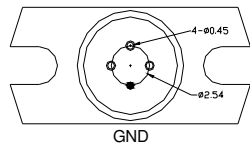
Direction A view
PPT4C-1(DEFAULT)



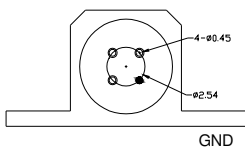
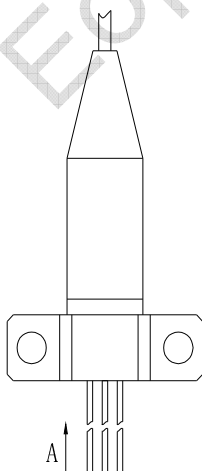
Direction A view
PPT4C-2



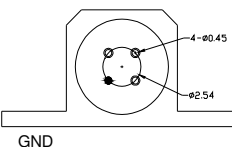
Direction A view
PPT4C-3



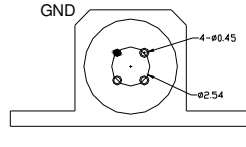
Direction A view
PPT4C-4



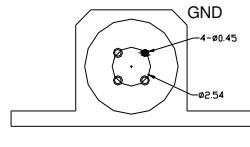
Direction A view
PPT4D-1(DEFAULT)



Direction A view
PPT4D-2



Direction A view
PPT4D-3



Direction A view
PPT4D-4

Nomenclature of assembly direction^{*Note6}

Pigtail |
PIN-TIA
 4=pin-4
 5=pin-5
 A=A Type Fixed Cards
 C=C Type Fixed Cards

*Note6: Please designate the code of assembly direction.

Nomenclature

G P T P—
 A B C D E F

A	Date rate	3=155Mbps			
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	E
F	Connector	F=FC/PC	S=SC/PC	T=ST/PC	SA=SC/APC
		FA=FC/APC	L=LC/PC		Blank=None

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-4	Zore.Zhao	Kelly		2009-12-23

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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>