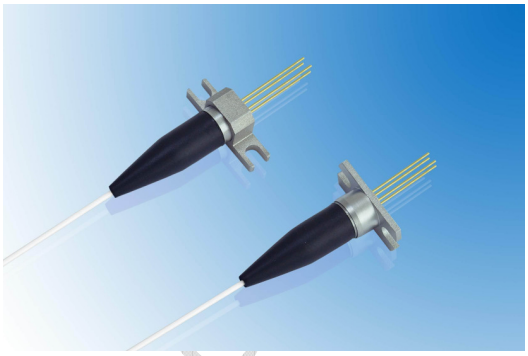
GPTP-513FXX-M

622Mbps PIN-TIA Receiver Modules (With MMF Pigtail)



Features

- High Sensitivity: -30dBm
- Differential Ended Output
- Single +3.3V Operation
- Trans-Impedance Amplifier With AGC
- Fiber Pigtail: 62.5um/125um MMF
- RoHS Compliant Products Available

Applications

- OC-12/STM-4 Long Reach Optical Transmission
- Measurement Instrument

General

GPTP-51XXXX Series is a 622Mbps, 5 pin PIN-TIA with TO package. It provides high sensitivity with AGC. A photodiode is mounted into a low capacitance coaxial package with a MMF pigtail. The pin-photodiode (PD) with monolithically integrated resistors and capacitors is utilized to spontaneously achieve excellent noise immunity with a large dynamic range. Differential outputs and photocurrent monitoring functions are available.

Ordering Information (Standard version*Note1)

Part No.	Wavelength(nm)	Voltage (V)	Package	Pin Type
GPTP-513FAX-M	1100～1650	3.3	A	F
GPTP-513FBX-M	1100～1650	3.3	B	F
GPTP-513FCX-M	1100～1650	3.3	C	F
GPTR-513FDX-M	1100～1650	3.3	D	F
GPTR-513FEX-M	1100～1650	3.3	E	F

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

Absolute maximum ratings*Note2

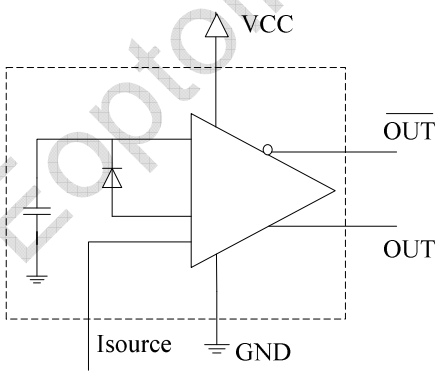
Parameter	Min	Typ.	Max	Unit
Storage Temperature（Tstg）	-40	25	90	□
Operating Temperature（Ta）	-20	25	85	□
Operation Relative Humidity	-	-	85	%
Supply Voltage (Vcc)	-0.5	3.3	6.5	V
Soldering Temperature / Time	-	-	260/10	℃/S

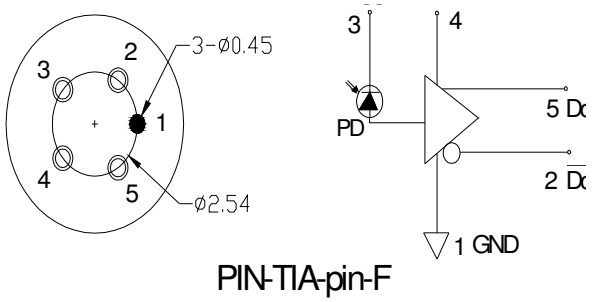
*Note2: Exceeding any one of these values may destroy the device permanently.

Electrical and optical characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Operating Wavelength	λ	1100		1650	nm	-
Supply Current	I_{cc}	23	28	35	mA	P_{in} = 0 uW, R_L = 50Ω,V_{cc}= 3.3V
Responsivity	R	-	42.8	-	KV/W	λ=1310nm P_{in} = 1.5uW, AC Coupled to R_L = 50Ω
Saturation Power	Psat	-	-	-1	dBm	25℃
Trans-impedance	Zt	5.0	7.0	-	kΩ	-
Sensitivity	S	-	-33.5	-30	dBm	1310nm, 622Mbps, BER=1E-10@PRBS= 2^{23}-1
Rise /FallTime	T	-	0.55	-	ns	V_{cc}=3.3V(20～80%)

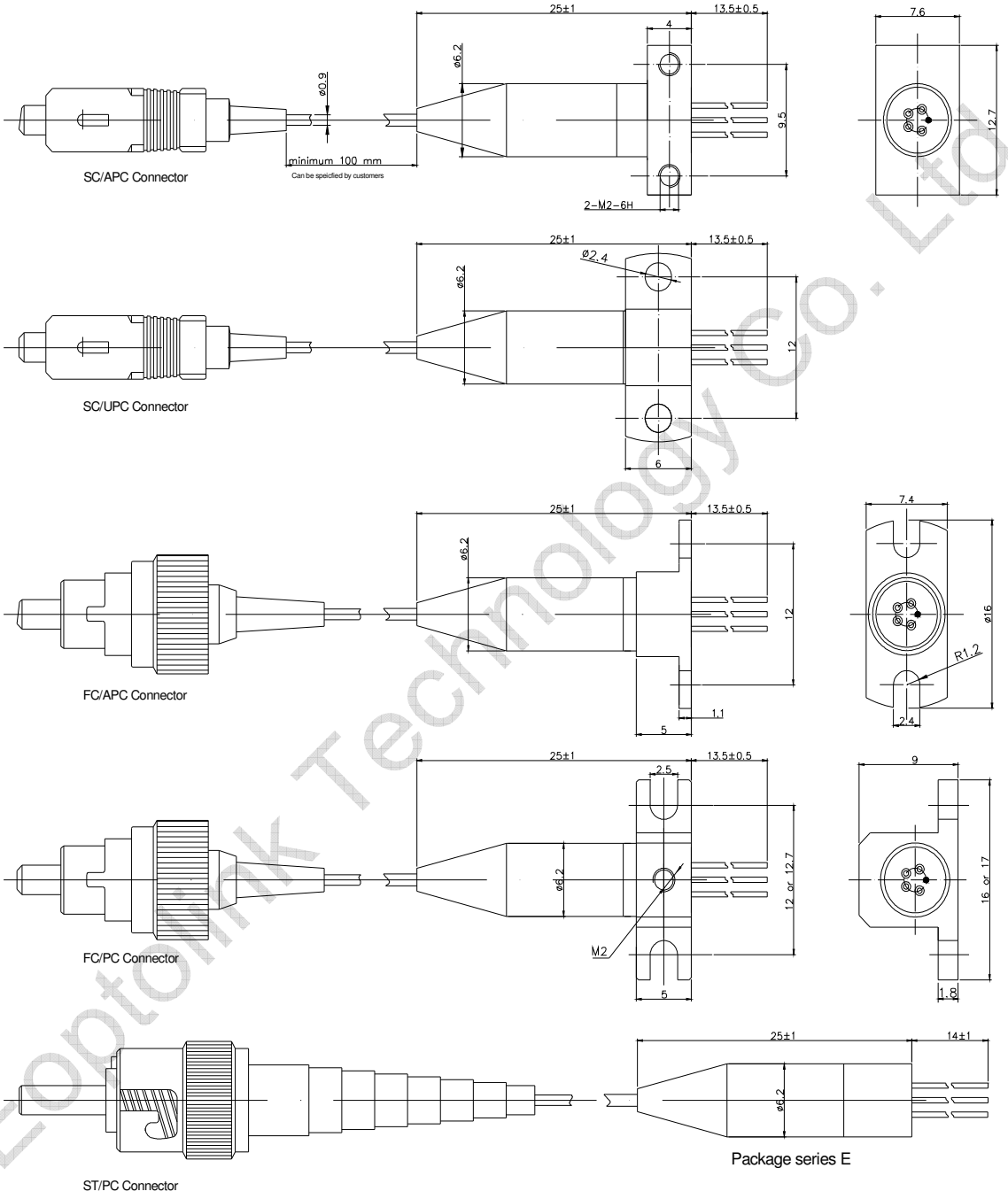
Block Diagram





PIN-TIA-pin-F

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.

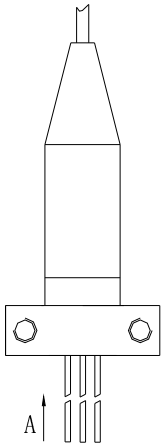
*Note4: For the package series D, the clamping rings dimensions (A) and drill size (B) are can be selected. The following types can be available. Please designate the detailed type while ordering the package series D.

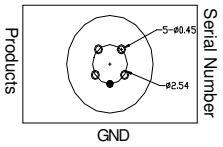
	A(mm)	B(mm)
D	16	12

D-S	17	12.7

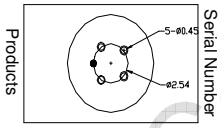
*Note5: For the package series B, the fix card is fixed by customer self. For the detailed information of fix card of A, C, D package series, please refers the following graphs.

The direction of fix card

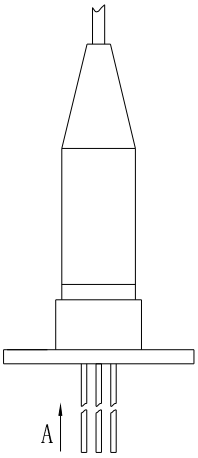


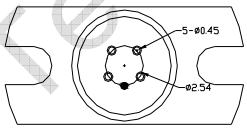


Direction A view
PPT5A-1(DEFAULT)

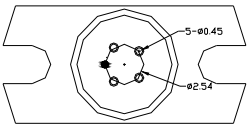


Direction A view
PPT5A-2

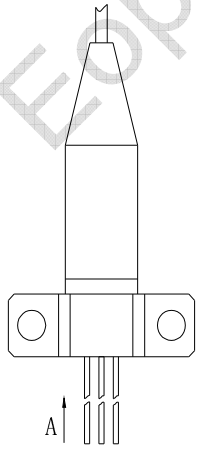


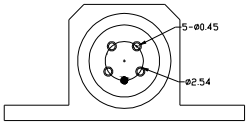


Direction A view
PPT5C-1(DEFAULT)

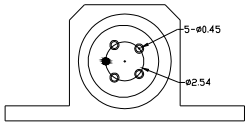


Direction A view
PPT5C-2

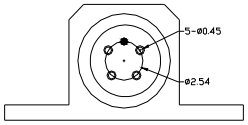




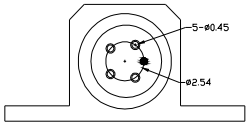
Direction A view
PPT5D-1(DEFAULT)



Direction A view
PPT5D-2

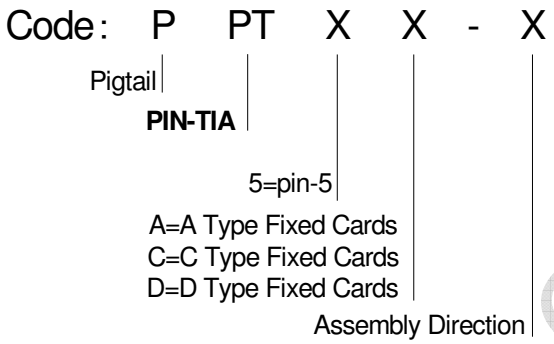


Direction A view
PPT5D-3



Direction A view
PPT5D-4

Nomenclature of assembly direction*Note6



*Note6: Please designate the code of assembly direction.

Nomenclature

G P T P— □ □ □ □ □ □ □

A B C D E F G

A	**Date rate**	5=622Mbps				
B	**Wavelength**	1=1100～1650nm				
C	**Voltage**	3=3.3V				
D	**Pin Type**	F = pin-F				
E	**Package series**	A	B	C	D	E
F	**Connector**	F=FC/PC	S=SC/PC	T=ST/PC	L=LC/PC	M=MU/PC
		FA=FC/APC		SA=SC/APC		N=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 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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