

GPTR-A13Ex

3Gbps PIN-TIA Receiver Modules (Receptacle Module)



Features

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

Applications

- ◆ High-speed, high-performance serial digital interface for 3Gbps video applications
- ◆ Supports Video Pathological Patterns for SD-SDI, HD-SDI and 3G-SDI

General

GPTR-A13Ex is a TO-based 3 Gbps, 5 pin PIN-TIA. It provides high sensitivity with AGC and 100ohm differential outputs. A photodiode is mounted into a low capacitance coaxial package integrated with a receptacle.

Ordering Information (Standard version ^{*Note1})

Part No.	Wavelength (nm)	Voltage (V)	Package	Pin Type	Insulation
GPTR-A13EA	1100~1610	3.3	A	E	N
GPTR-A13EB	1100~1610	3.3	B	E	N
GPTR-A13EE	1100~1610	3.3	E	E	N
GPTR-A13EP	1100~1610	3.3	P	E	N
GPTR-A13EF	1100~1610	3.3	F	E	N

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

Absolute maximum ratings

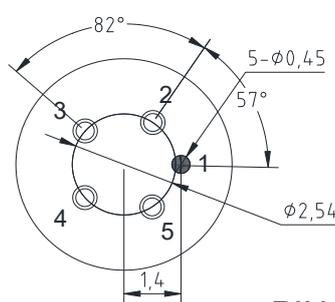
Parameter	Min	Typ.	Max	Unit
Storage Temperature	-40	---	100	°C
Operating Temperature	-40	---	85	°C
TIA Supply Voltage	3.0	3.3	3.6	V
Soldering Temperature / Time	-	---	260/10	°C/s

Electrical and optical characteristics

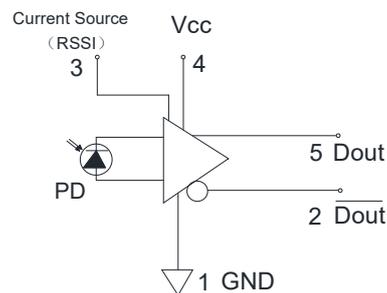
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Operating Wavelength	λ	1100	1310	1610	nm	
Supply Current	I _{cc}	---	42	50	mA	V _{cc} =3.3V
Saturation Power	P _{sat}	0	---	---	dBm	PRBS=223-1, BER=10 ⁻¹² , ER=7.0dB
High Frequency andwidth (-3dB)	BW	1.8	3.4	---	GHz	RL = 50Ω
Low Frequency Bandwidth	BW1	---	500	750	Hz	RL = 50Ω
Sensitivity	S	---	-22	-21	dBm	λ =1310nm, BER=10 ⁻¹² , PRBS=2 ²³ -1, ER=7.0dB, Speed=2.97Gbps,
Rise /FallTime	τ_r/τ_f	---	150/150	---	Ps	20~80%

Pin Assignment

TYPE: E



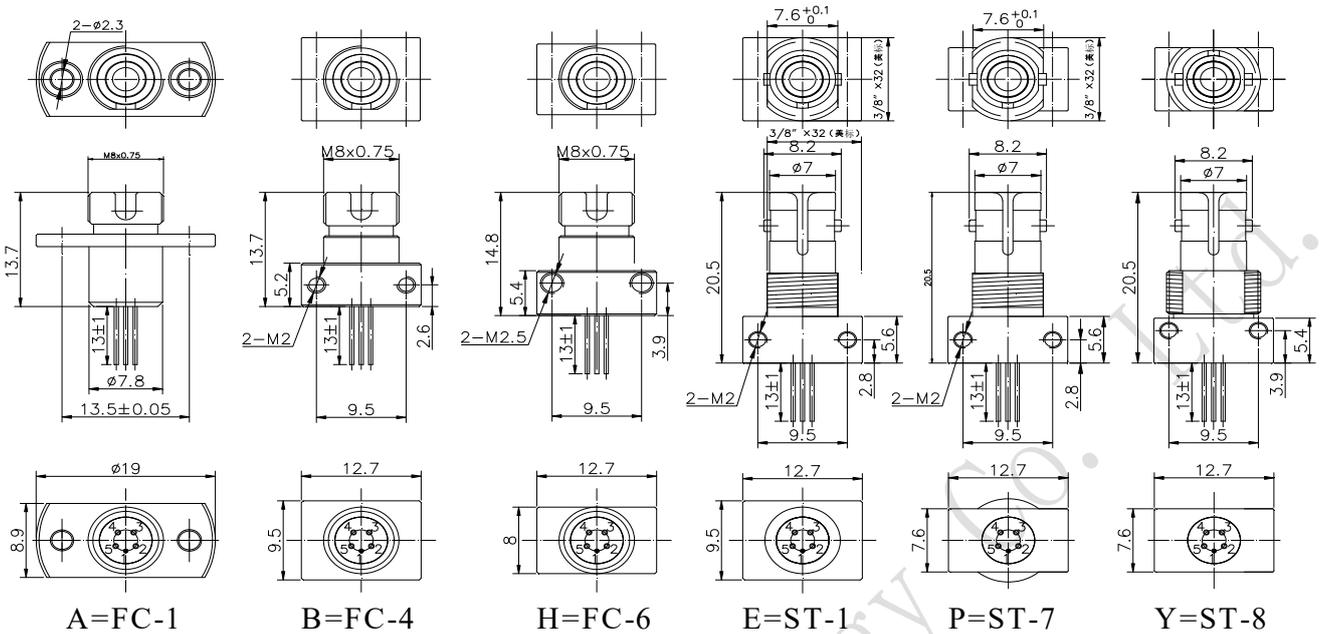
PIN-TIA-pin-E



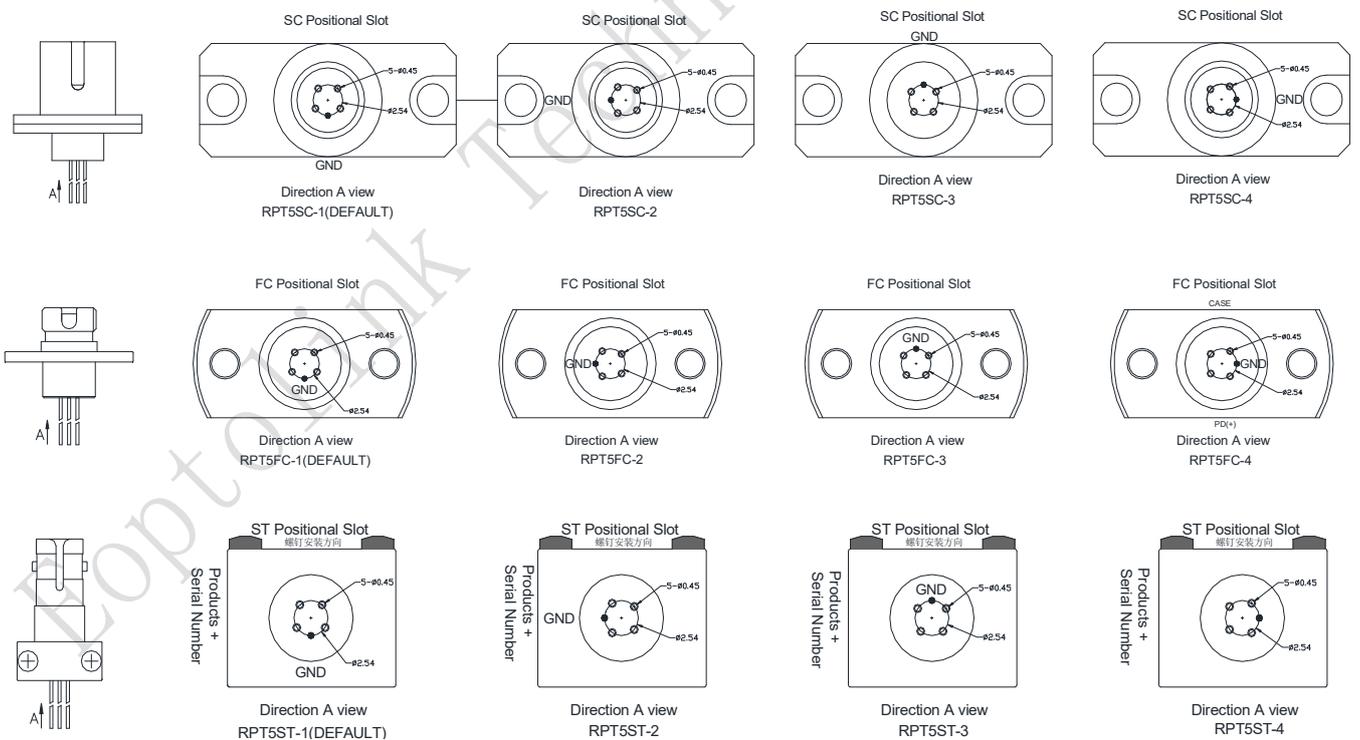
TO-CAN Information

PIN-TIA TO-CAN	ERPACE-MCC43
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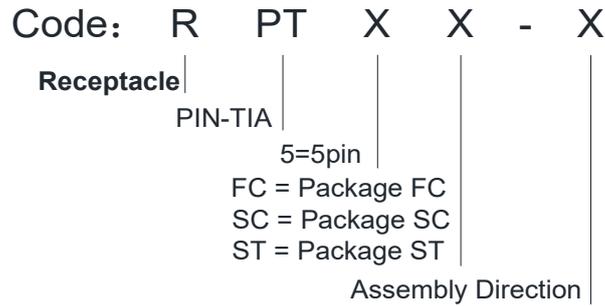
Receptacle Package series



The direction of fix card



Nomenclature of assembly direction ^{*Note2}



*Note2: Please designate the code of assembly direction.

Nomenclature

G P T R—

A B C D E F

Code	Parameter	Detailed Description					
A	Date rate	A=3Gbps					
B	Wavelength	1=1100~1610nm					
C	Voltage	3=3.3V					
D	Pin Type	E= pin-E					
E	Package series	A=FC-1	B=FC-4	E=ST-1	H=FC-6	P=ST-7	Y= ST-8
F	Insulation	Blank=NO Insulation			J= Insulation		

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.

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

Version	Initiated	Reviewed	Approved	Revision record	Release Date
Va-1	Jack.Jiang	Zore.Zhao			2014-12-17
Va-2	Jack.Jiang	Zore.Zhao		Content improvement	2014-12-29
Va-3	george.zhong	Zore.Zhao Kelly.cao		Add FC-6 information	2016-01-08
Va-4	george.zhong	Zore.Zhao Kelly.cao		Update Pin Assignment and TO-CAN	2017-11-22
Va-5	Yinchun.Zhao	James.liu	Vincent.yu	Increase pin length annotation	2021-5-14

Notice:

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