

SC-ROSAXX913XX

2.5Gbps PIN-TIA Receiver with Receptacle Modules



Features

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

Applications

- ◆ 2.5Gbps application
- ◆ SDH/SONET application

General

SC-ROSAX913XX Series is a 4 pin or 5 pin PIN-TIA with Receptacle operating on 2.5Gbps. It provides high sensitivity with AGC, 100ohm differential outputs PIN-TIA provides a monitor pin. A split sleeve for the optical connector is jointed with Ø2.5mm ferrule.

Ordering Information (Standard version ^{*Note1})

Part No.	Insulation	Voltage (V)	Pin Type	Ferrule sets of type
SC-ROSA59130B	NO	3.3	A	Ceramic sleeve
SC-ROSA6J9130W	YES	3.3	A	No ceramic sleeve
SC-ROSA5913DW	NO	3.3	D	No ceramic sleeve
SC-ROSA6J913DB	YES	3.3	D	Ceramic sleeve

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

Absolute maximum ratings

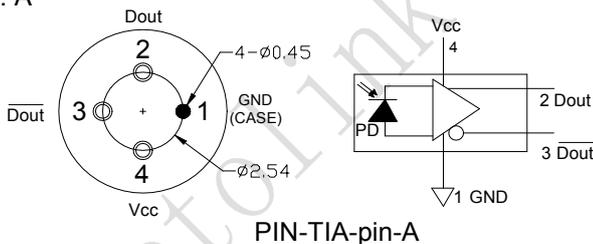
Parameter	Min	Typ.	Max	Unit
Storage Temperature	-40	25	85	°C
Operating Temperature	-40	25	85	°C
TIA Supply Voltage	3.1	3.3	3.5	V
Operation Relative Humidity	-		85	%
Soldering Temperature / Time	-		260/10	°C/S

Electrical and optical characteristics

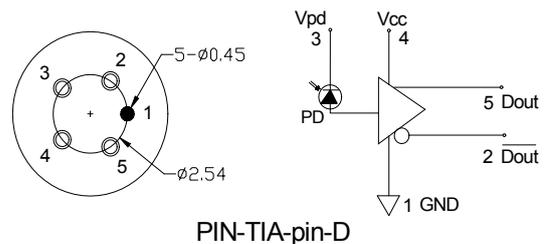
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Operating Wavelength	λ	1270		1620	nm	
Supply Current	I _{cc}		30	40	mA	No Loads
Saturation Power	P _{sat}	-3	0	-	dBm	@ 1310nm
Small-Signal Bandwidth	BW	1.65			GHz	
Low-Frequency Cut off	LF			5	kHz	
Sensitivity			-23	-21	dBm	$\lambda = 1310 \text{ nm}$, @2.5Gbps, PRBS7, ER=10dB, BER=1E-10
Single Ended Output Impedance	R		50		Ω	
Rise /FallTime	T			4.5	ns	10~90%

Pin Assignment *Note2

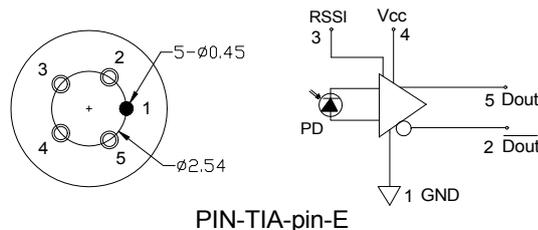
TYPE: A



TYPE: D

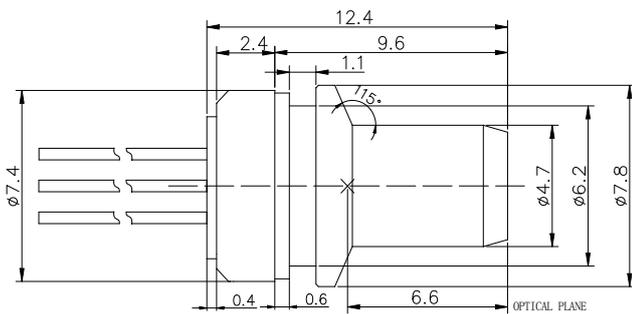


TYPE: E

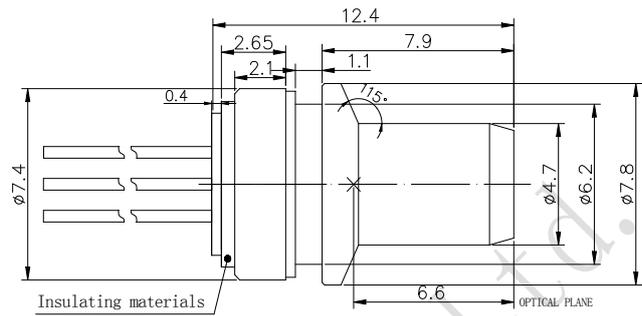


Note2: Other Pin type can be customized.

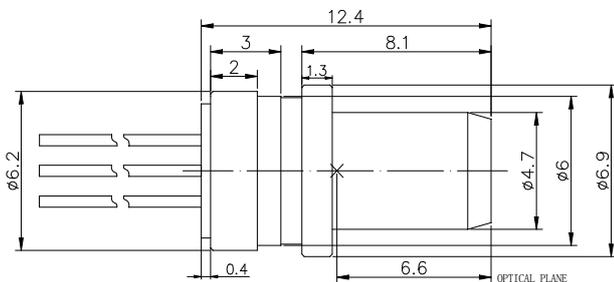
Package dimension *Note3



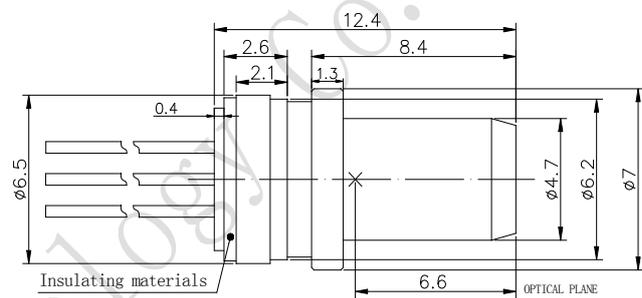
SC-ROSA5



Insulation SC-ROSA5



SC-ROSA6



Insulation SC-ROSA6

*Note3: Insulation is the TO-CAN and the metal pipe insulation.

Nomenclature

SC — ROSA

A B C D E F G

A	Split sleeve Type	5=ROSA5		6=ROSA6		
B	Insulation	J= Insulation		BLANK=Non-insulated structure		
C	Date rate	9=2.5Gbps				
D	Wavelength	1=1270~1620nm				
E	Voltage	3=3.3V				
F	Pin Type	0= PIN-TIA-pin-A		D= PIN-TIA-pin-D		E= PIN-TIA-pin-E
G	Ferrule sets of type	BLANK=Without the ceramic sleeve and Without the fiber-stub		B=With a ceramic sleeve		M= with a split sleeve and the MM fiber-stub

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

Verision	Initiated	Reviewed	Approved	Revision History	Release Date
Vb-1	Zore.Zhao	Kelly.Cao		The initial	2011-6-21
Vb-2	Jack.jiang	Kelly.Cao Zore.Zhao			2012-1-06
Vb-3	Hanks.du	Kelly.Cao Zore.Zhao		Revise address and PIN Type	2016-12-14

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