2.5G PIN-TIA Receiver with LC Receptacle Modules

OSML-ROSAX91XXX

Features:

- High sensitivity
- Differential ended output
- Single +3.3V operation
- Trans-impedance amplifier with AGC
- RoHS Compliant products available

Applications:

- 2.5G application
- SDH/SONET application

General:

OSML-ROSAX91XXX Series is a 4 pin or 5 pin PIN-TIA with Receptacle operating on 2.5G. 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 Φ1.25mm ferrule.

Ordering Information: (Standard version *Note1)

Part No.	Insulation	Wavelength (nm)	Voltage (V)	Pin Type
OSML-ROSA9130B	NO	1100~1650	3.3	A
OSML-ROSAJ913EB	YES	1100~1650	3.3	E
OSML-ROSA913DB	NO	1100~1650	3.3	D
OSML-ROSAJ913EB	YES	1100~1650	3.3	E

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

ADD: No.189, BINHE ROAD,HUAYANG,TIANFU NEW AREA,CHENGDU,SICHUAN,CHINA 610213
TEL: +86-28-64570369
FAX: +86-28-64570369
E-mail: sales@osemos.com http://www.osemos.com

Absolute Maximum Ratings:

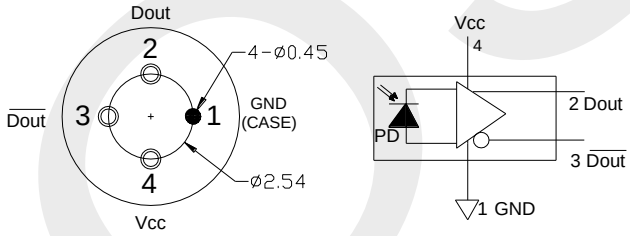
Parameter	Min.	Typ.	Max.	Unit
Storage Temperature	-40	25	85	℃
Operating Temperature	-40	25	85	℃
TIA Supply Voltage	3.1	3.3	3.5	V
Operation Relative Humidity	-		85	%
Soldering Temperature / Time	-		260/10	°C/S

Electrical and Optical Characteristics:

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Wavelength	λ	1100	1310	1650	nm	
Supply Current	Icc	-	-	59	mA	No Loads
Saturation Power	Psat	0	0	-	dBm	@ 1310nm
Small-Signal Bandwidth	BW	1.65	-	-	MHz	
Low-Frequency Cut off	LF	-	-	5	kHz	
Sensitivity	Sen	-	-22	-	dBm	λ=1310 nm, @2.5G,PRBS^{23}-1, ER=10dB, BER=1E-10
Single Ended Output Impedance	R	35	50	60	Ω	
Rise /Fall Time	T		0.15	0.2	ns	20~0%

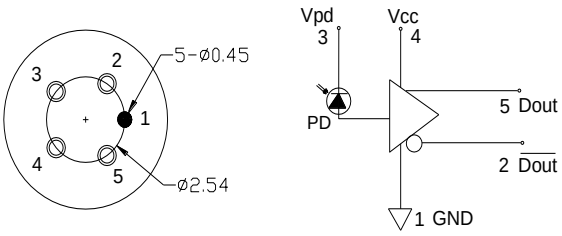
Pin Assignment: *Note2

TYPE: A

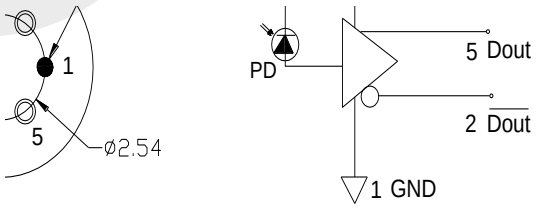


PIN-TIA-pin-A

TYPE: D



PIN-TIA-pin-D



PIN-TIA-pin-D

Note2: Other Pin type can be customized.

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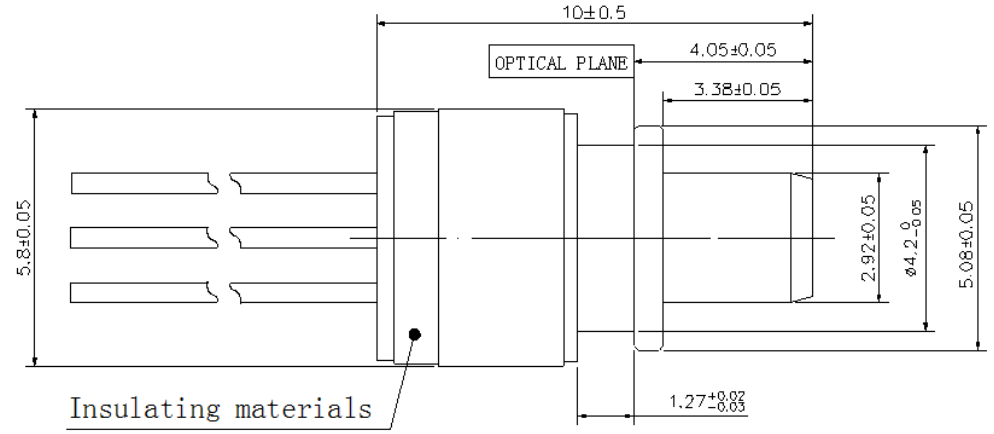
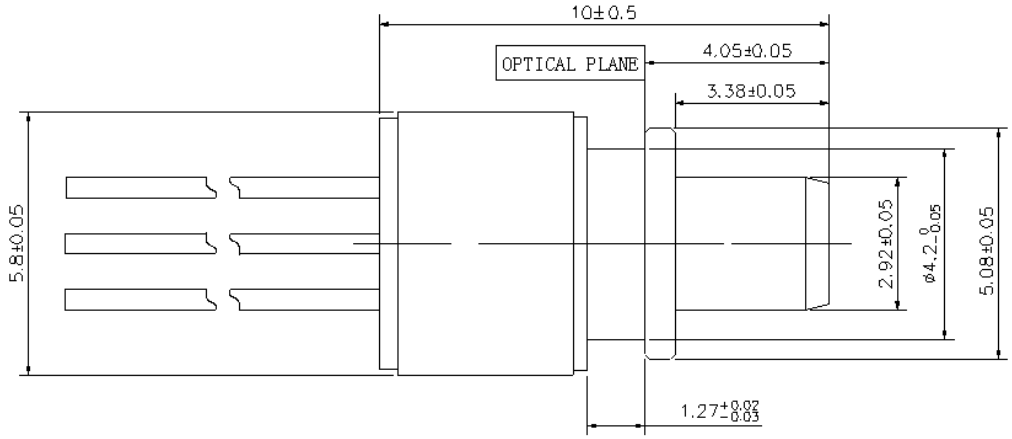
Package Dimension: *Note3



Insulation



Not insulated

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

Nomenclature:

OSML-ROSA ☐ ☐ ☐ ☐ ☐ ☐

A B C D E F

A	**Insulation**	J= Insulation		BLANK=Non-insulated structure
B	**Data Rate**	9=2.5G		
C	**Wavelength**	1=1100~1650nm		
D	**Voltage**	3=3.3V		
E	**Pin Type**	0= PIN-TIA-pin-A	D= PIN-TIA-pin-D	E= PIN-TIA-pin-E
F	**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

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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.

Notice:

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