

622M PIN-TIA Receiver with Receptacle Modules

HELC-ROSAX513XX

Features:

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



Applications:

- ◆ 622M application
- ◆ SDH/SONET application

General:

HELC-ROSAX513XX Series is a 4 pin or 5 pin PIN-TIA with Receptacle operating on 622M. 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 $\varnothing 1.25\text{mm}$ ferrule.

Ordering Information: (Standard version ^{*Note1})

Part No.	Insulation	Wavelength (nm)	Voltage (V)	Pin Type
HELC -ROSA5130B	NO	1270~1620	3.3	A
HELC -ROSAJ5130	YES	1270~1620	3.3	A
HELC -ROSA513D	NO	1270~1620	3.3	D
HELC -ROSAJ513DB	YES	1270~1620	3.3	D

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

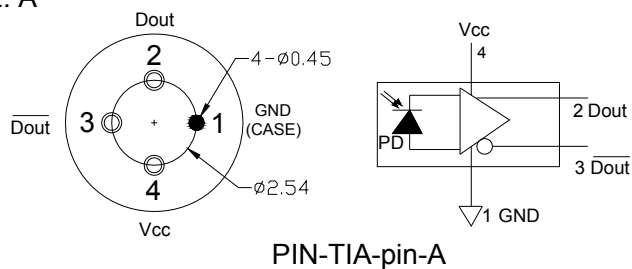
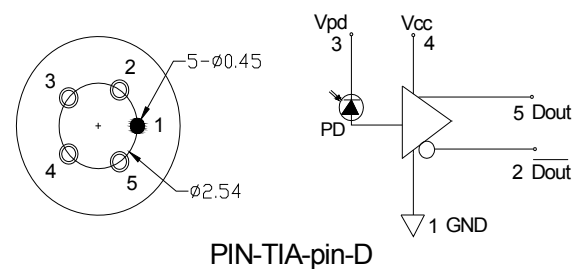
Absolute Maximum Ratings:

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:

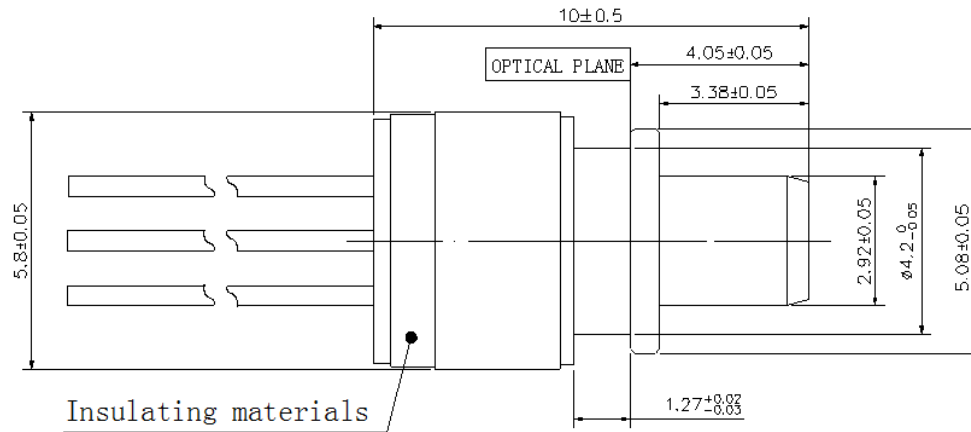
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Operating Wavelength	λ	1100		1650	nm	
Supply Current	I _{cc}		30	40	mA	No Loads
Saturation Power	P _{sat}	0	0	-	dBm	@ 1310nm
Small-Signal Bandwidth	BW	435			MHz	
Low-Frequency Cut off	LF			5	kHz	
Sensitivity			-33	-31	dBm	$\lambda=1310$ nm, @622M, PRBS7, ER=10dB, BER=1E-10
Single Ended Output Impedance	R	35	50	60	Ω	
Rise /Fall Time	T		300	400	ps	20~80%

Pin Assignment: *Note2

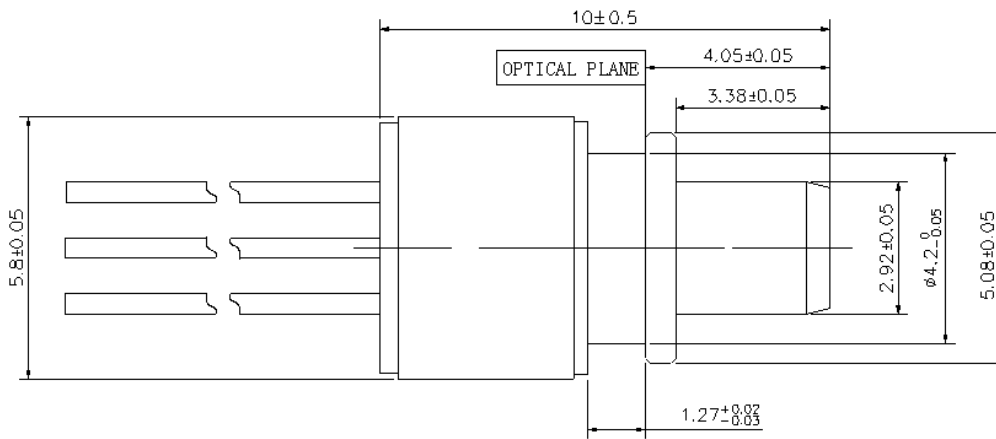
TYPE: A

TYPE: D


Note2: Other Pin type can be customized.

Package Dimension: *Note3



Insulation



Not insulated

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

Nomenclature:

HELC - ROSA
 A B C D E F

A	Insulation	J= Insulation	BLANK=Non-insulated structure	
B	Data Rate	5=622M		
C	Wavelength	1=1270~1620nm		
D	Voltage	3=3.3V		
E	Pin Type	0= pin-A	D= pin-D	
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

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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