

1310nm 3Gbps 5-Pin Low Optical Return Loss LC-ROSA

MI3E-9030-GCG Series

TYPE NAME: MI3E-9030-GCG

Product Description:

The LuxNet MI3E-9030-GCG 5-pin low optical return loss LC-ROSA (Receiver Optical Sub-Assembly) is designed for high-speed, high-performance data communication and telecommunication applications. This ROSA provides special digital diagnostic capability for transceivers with a wide dynamic range of input optical power. This device integrates our high-speed 1310/1550 nm PIN detector with an 3Gbps video trans-impedance amplifier (TIA) and capacitors into a TO-46 5-pin header with cap window and LC port. The product is designed for SD-SDI, HD-SDI and 3G-SDI data rates, where low optical return loss is required. The LC-type optical port with fiber stub transmits light into the PIN detector with high coupling efficiency and low optical return loss.

Product Specifications:

Absolute Maximum Ratings (T = 25°C):

Parameter	Symbol	Unit	Min.	Max.	Note
Operating Temperature	T _{op}	°C	-40	85	
Storage Temperature	T _{stg}	°C	-40	100	
Solder Reflow Temperature	T _s	°C		260	10 seconds max.
Power Supply Voltage	V _p	V	-0.5	4	
Optical Power	P _{in}	dBm		5	

Electro-Optical Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Supply Voltage	V _{cc}	V	2.97	3.3	3.63	
Supply Current	I _{cc}	mA		41	52	V _{cc} = 3.3V
Output Voltage (differential)	V _{op}	mV	350	450		R _L = 100Ω
Sensitivity	S	dBm			-24	λ = 1310nm PRBS=2 ²³ -1, BER=10 ⁻¹² , ER=7.0dB, Speed=2.97Gbps
High Frequency Bandwidth (-3dB)	BW	GHz	2.1	3.0		R _L = 50Ω
Low Frequency Bandwidth	BW _L	Hz			500	R _L = 50Ω
Wavelength	λ	nm	1100	1310	1650	
Rise/Fall Time	T _R /T _F	ps		150/150		(20%-80%)
Optical Return Loss	ORL	dB			-27	@1310nm
Overload	P _{load}	dBm	0			λ = 1310nm PRBS=2 ²³ -1, BER=10 ⁻¹² , ER=7.0dB, Speed=2.97Gbps

* Specifications are subject to change without notice.

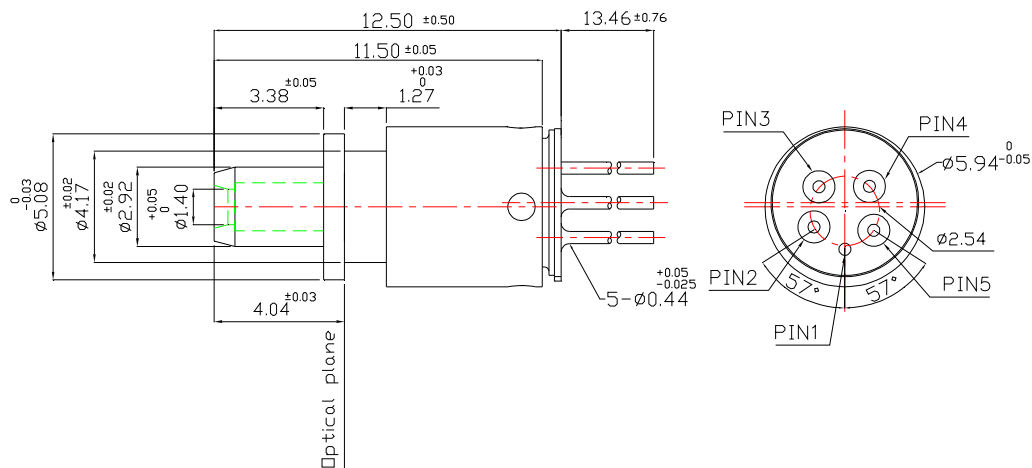
* Screening per customer-specified reject limits is available.

Version 1.0

MI3E-9030-GCG (LC-ROSA)

Dimensions: (mm)

All dimensions are nominal



PINOUT

MI3E-9030-GCG	
Pin Number	Function
1	Gnd
2	Non-inverted Output(D+)
3	Vcc
4	Current Sink (I _{mon})
5	Inverted Output(D*)

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Notice

Version	Date	Status	Description	Signature
1.0	2014/7/25	Initial	MI3E-9030-GCG datasheet Spec.	Cherry

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