



No. 6, Hejiang Road, Jhongli City,
Taoyuan County, TAIWAN
Tel: +886-3-452-5188
Fax: +886-3-462-9588
www.luxnetcorp.com.tw

850 nm 1.25 Gbps ROSA

MG1M-901x-1A Series

TYPE NAME: MG1M-9010-1A, MG1M-9011-1A

Product Description:

The LuxNet MG1M-901x-1A ROSA (Receiver Optical Sub-Assembly) is designed for high-speed, high-performance data communication applications. This device is integrated with an 850nm PIN, TO-46 header, and plastic port. The product is designed for 1.25 Gbps Fiber Channel, Gigabit Ethernet, and ATM/SONET transceiver modules and systems. The plastic port is engaged with a fiber connector to align light and to provide good coupling efficiency as light generated by the VCSEL is transmitted into multimode fiber.

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	85	
Solder Reflow Temperature	T _{stg}	°C		260	10 seconds max.
Power Supply Voltage	V _p	V	-0.5	6	
Optical Power	P _{in}	dBm		5	

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

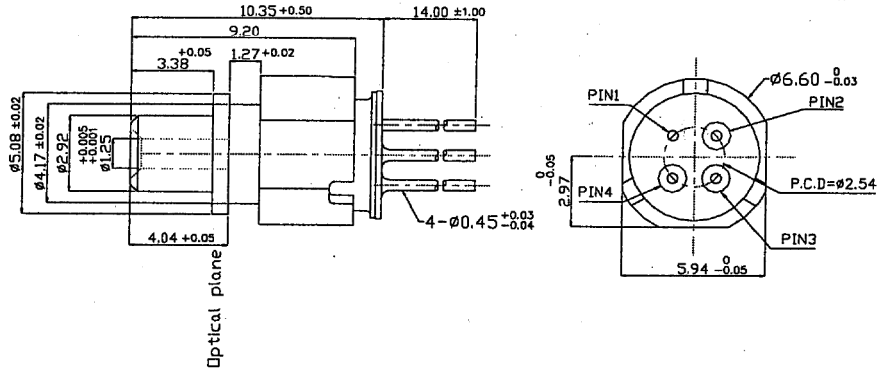
Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Supply Voltage	V _{cc}	Volts	3	3.3	5.5	
Supply Current	I _{cc}	mA		26	50	P=0 μW, R _L = 50Ω
Output Voltage	V _{out}	mV	9	12	16	P=7.2 μW, R _L = 50Ω
Responsivity	R	mV/uW	1.2	1.7	2.2	P=7.5 μW, R _L = 50Ω
Upper 3 dB Bandwidth	BW _{upper}	GHz	750	920	1100	R _L = 50Ω
Sensitivity	S	dBm		-23	-22	2 ⁷ -1 PRBS, BER=10 ⁻¹⁰
Wavelength	λ	nm	760	850	860	
Rise/Fall Time	τ _r /τ _f	ps	200	300	400	20-80%
Overload		dBm	0			

- ** Specifications are subject to change without notice.
- * Screening per customer-specified reject limits is available.

Version 1.3

MG1M-9010-1A (LC-ROSA)

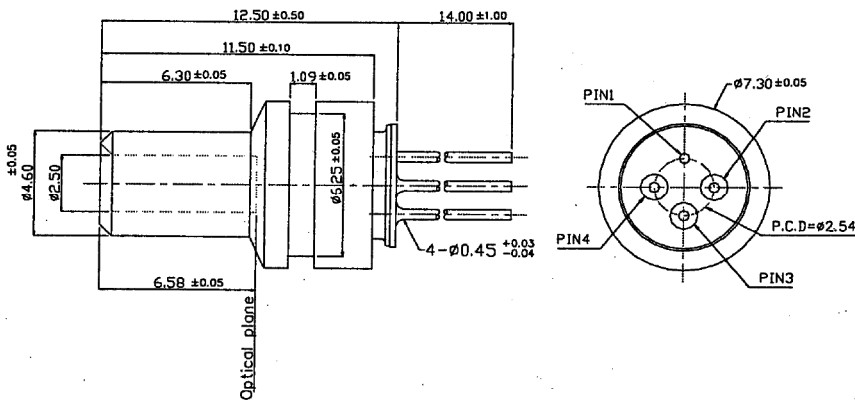
Dimensions: (mm)
All dimensions are nominal



PINOUT

MG1M-9010-1A	
Number	Function
1	Gnd
2	Non-Inverted Output
3	Vcc
4	Inverted Output

MG1M-9011-1A (SC-ROSA)



PINOUT

MG1M-9011-1A	
Number	Function
1	Gnd
2	Non-Inverted Output
3	Vcc
4	Inverted Output

** Specifications are subject to change without notice.
* Screening per customer-specified reject limits is available.

MGIM-9011-1A

(dbm)	iter(ros)	iter(ros)	iter(ros)	iter(ros)	iter(ros)
	#1	#2	#3	#4	#5
0	76	72	73	73	73
-1	69	70	68	71	75
-2	65	66	68	69	69
-3	73	70	69	65	69
-4	80	82	75	76	81
-9	84	84	86	83	80
-10	80	83	90	79	81
-13	95	89	93	91	93
-17	113	111	120	124	130
-18	126	130	133	131	128
-19	132	140	143	135	138
-20	148	150	155	160	153
-21	191	177	193	185	171
-22	222	214	214	236	236

Test date: 2005/11/10
 Operator: Allen Lu
 Test condition: 2×1.10^{10}
 Wavelength: 850nm
 Speed: 1.063G
 Light source: 850nm VCSEL laser
 ER: 9-10db
 Overload Spec: @0dbm, -200pcc

MGIM-9011-1A

