

Rukus Compatible E1MG-LX-OM Quick Spec:

Part Number	E1MG-LX-OM
Form Factor:	SFP
TX Wavelength:	1310nm
Reach:	10km
Cable Type:	SMF
Rate Category:	1000Base
Interface Type:	LX
DDM:	Yes
Connector Type:	Dual-LC



Rukus Compatible E1MG-LX-OM Features

- Up to 1.25Gb/s data links
- Hot-pluggable SFP Footprint
- Compliant with specifications for IEEE802.3Z
- Eye Safety Designed to meet Laser Class1 Compliant with IEC60825-1
- Single +3.3V Power Supply
- RoHS compliance
- 10km links on standard 9/125 micron singlemode fiber
- Operating temperature range:
 - Standard 0 to +70 °C
 - Industrial -40 to +85 °C

Rukus Compatible E1MG-LX-OM Applications

- Gigabit Ethernet
- 1x Fiber Channel
- Other optical links

Rukus Compatible E1MG-LX-OM Specification

Electrical and Optical Characteristics (Condition: Ta=TOP)

Parameter	Symbol	Min.	Typ	Max.	Unit
Transmitter Differential Input Volt	+/-TX_DAT	650		2000	mV p-p
Supply Current	I _{CC}		200	250	mA
Tx_Disable Input Voltage – Low	V _{IL}	0		0.8	V
Tx_Disable Input Voltage – High	V _{IH}	2.0		V _{CC}	V
Tx_Fault Output Voltage – Low	V _{OL}	0		0.8	V
Tx_Fault Output Voltage – High	V _{OH}	2.0		V _{CC}	V
Receiver Differential Output Volt	+/-RX_DAT	0.4		2000	mV p-p
Rx_LOS Output Voltage- Low	V _{OL}	0		0.8	V
Rx_LOS Output Voltage- High	V _{OH}	2.0		V _{CC}	V

Optical Characteristics

TX					
Parameter	Symbol	Min	Typ	Max	Unit
Data Rate	B	-	1250	-	Mb/s
Centre wavelength	λ_c	1296	1310	1330	nm
Output Spectral Width	$\Delta\lambda$	-	-	4	nm
Average Output Power	P_o	-9	-	-3	dBm
Extinction Ratio	EXT	10	-	-	dB
Data Input Voltage-High	V_{IHS}	$V_{cc}-1.16$	-	$V_{cc}-0.89$	V
Data Input Voltage -Low	V_{ILS}	$V_{cc}-1.82$	-	$V_{cc}-1.48$	V
Supply Current	I_{cc}	-	90	150	mA
Output Optical Eye	Compliant with IEEE802.3Z				

RX					
Parameter	Symbol	Min	Typ	Max	Unit
Receive Sensitivity	P_{min}	-	-	-21	dBm
Maximum Input Power	P_{MAX}	-3	0	-	dBm
Signal Detect Threshold-Assertion:	SD_{HIGH}	-	-	-23	dBm
Signal Detect Threshold-Deassertion:	SD_{LOW}	-35	-	-	dBm
Hysteresis	-	-	2.0	-	dBm
Output High Voltage	V_{OH}	$V_{cc}-1.03$	-	$V_{cc}-0.89$	V
Output Low Voltage	V_{OL}	$V_{cc}-1.82$	-	$V_{cc}-1.63$	V
Operating Wavelength	λ_c	1100	-	1600	nm
Supply Current	I_{cc}	-	80	110	mA

Absolute Maximum Ratings ($T_C=25^\circ\text{C}$)

Parameter	Symbol	Min	Max	Unit
Storage Temperature	T_{ST}	-40	+85	$^\circ\text{C}$
Operating Temperature (Standard)	T_{IP}	0	+70	$^\circ\text{C}$
Operating Temperature (Industrial)	T_{IP}	-40	+85	$^\circ\text{C}$
Input Voltage	T_{CC}	0	5	V

Recommended Operation Environment

Parameter	Symbol	Min	Typ	Max	Unit
Supply Voltage	V_{CC}	+3.0	3.3	+3.6	V
Operating Temperature	T_{OP}	0	-	+50	$^\circ\text{C}$