

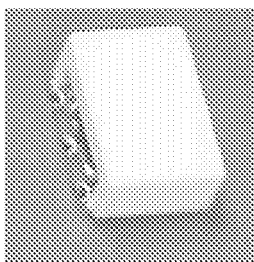
E-Series Surface Mount Mixer

0.5 – 500 MHz



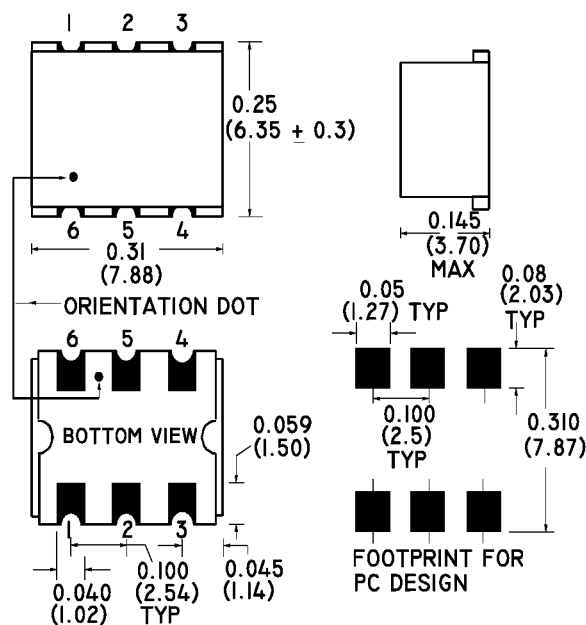
Features

- LO Power +7 dBm
- Up to +1 dBm RF
- Surface Mount
- Low Profile



SM-89 Package

Note: Non Hermetic Package



Description

M/A-COM's ELCM-1 is a Low Cost, Broadband, high performance Double Balanced Mixer designed for use in high volume wireless applications. The device has been optimised by careful selection of the Schottky Diode and Balun Transformer for excellent performance. ELCM-1 is available in an SM-89 surface mount package and reflows using standard soldering reflow

Electrical Specifications @ +25 °C, Z₀ = 50 Ohms, LO = +7dBm

Parameter	Units	Minimum	Typical	Maximum
Frequency Range				
RF	0.5 - 500	—	—	—
LO	0.5 - 500	—	—	—
IF	DC - 500	—	—	—
Conversion Loss				
1 - 250	dB	—	5.5	7.0
0.5 - 500	dB	—	6.2	8.5
Isolation (LO - RF)				
0.5 - 5	MHz	50	55	—
5 - 250	MHz	25	33	—
250 - 500	MHz	20	27	—
Isolation (LO - IF)				
0.5 - 5	MHz	45	55	—
5 - 250	MHz	23	30	—
250 - 500	MHz	19	24	—
RF Input for 1dB Compression	dBm	—	—	+1

V3.00 S 1353 C

Absolute Maximum Ratings

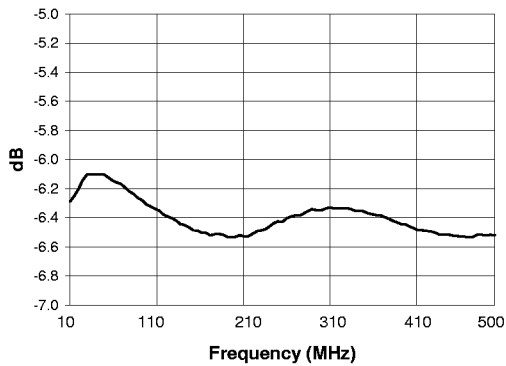
Parameter	Absolute Maximum
RF Power	50 mW
Peak IF Current	40 mA
Storage Temperature	-55°C to +100°C
Operating Temperature	-55°C to +100°C
Pin Temperature (10 Seconds)	260°C

Functional Configuration

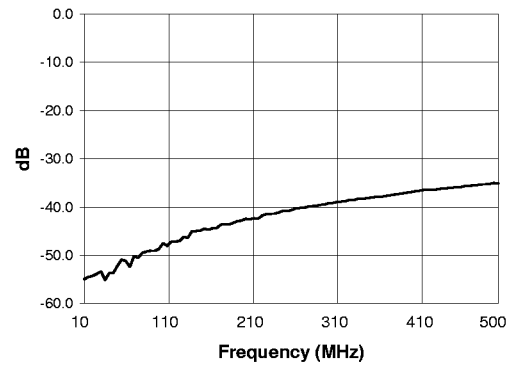
Function	Pin No.
LO	1
RF	4
IF	5
Ground	2, 3, 6
Case Ground	—
Unconnected	—

Typical Performance @ +25°C

Conversion Loss



L-R Isolation



L-I Isolation

