

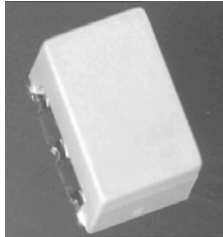
# E-Series Surface Mount Mixer

## 0.5 – 500 MHz



### Features

- LO Power +17 dBm
- Up to +14 dBm RF
- Surface Mount

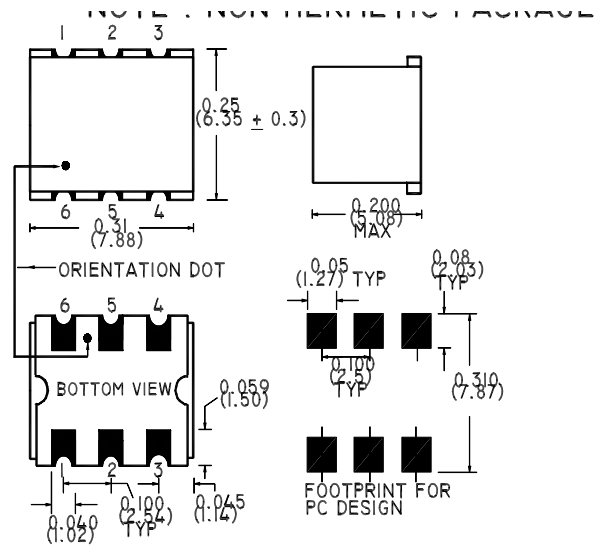


### Description

M/A-COM's ELCM-1H 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-1H is available in an SM-87 surface mount package and reflows using standard soldering reflow profiles.

### SM-87 Package

Note: Non Hermetic Package



### Electrical Specifications @ +25°C, Z<sub>0</sub> = 50 Ohms, LO = +17dBm

Parameter	Units	Minimum	Typical	Maximum
Frequency Range				
RF	0.5 - 500 MHz	—	—	—
LO	0.5 - 500 MHz	—	—	—
IF	DC - 500 MHz	—	—	—
Conversion Loss				
1 - 250	dB	—	6.8	7.5
250 - 500	dB	—	7.2	8.0
Isolation (LO - RF)				
0.5 - 5	MHz	50	55	—
5 - 250	MHz	35	40	—
250 - 500	MHz	30	35	—
Isolation (LO - IF)				
0.5 - 5	MHz	45	55	—
5 - 250	MHz	30	35	—
250 - 500	MHz	27	35	—
RF Input for 1dB Compression	dBm	—	—	+14

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### Absolute Maximum Ratings

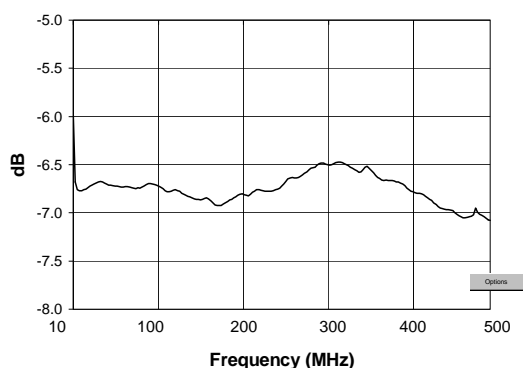
Parameter	Absolute Maximum
RF Power	200 mW
Peak IF Current	40 mA
Storage Temperature	-55°C to +100°C
Operating Temperature	-55°C to +100°C
Pin Temperature (10 Seconds)	260°C

### Functional Configuration

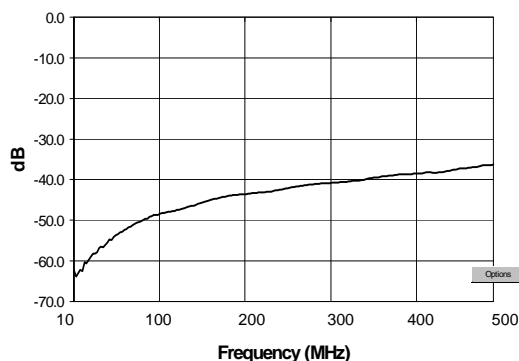
Function	Pin No.
LO	1
RF	4
IF	5
Ground	2, 3, 6
Case Ground	—
Unconnected	—

### Typical Performance @ +25°C

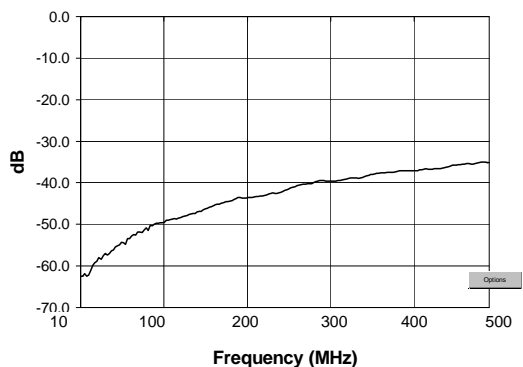
Conversion Loss



L-R Isolation



L-I Isolation



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