

E-Series Surface Mount Mixer 2 – 500 MHz



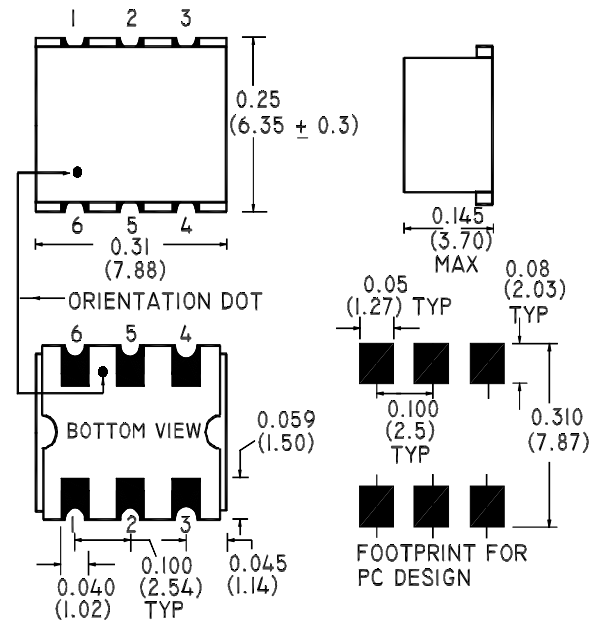
Features

- LO Power +13 dBm
- Up to +9 dBm RF
- Surface Mount
- Low Profile



SM-89 Package

Note: Non Hermetic Package



Description

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

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

Parameter	Units	Minimum	Typical	Maximum
Frequency Range				
RF 2 - 500	MHz	—	—	—
LO 2 - 500	MHz	—	—	—
IF DC - 500	MHz	—	—	—
Conversion Loss				
2 - 250	dB	—	5.5	7.0
250 - 500	dB	—	6.0	8.0
Isolation (LO - RF)				
2 - 20	MHz	45	55	—
20 - 250	MHz	30	44	—
250 - 500	MHz	25	30	—
Isolation (LO - IF)				
2 - 20	MHz	40	55	—
20 - 250	MHz	25	35	—
250 - 500	MHz	25	29	—

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Absolute Maximum Ratings

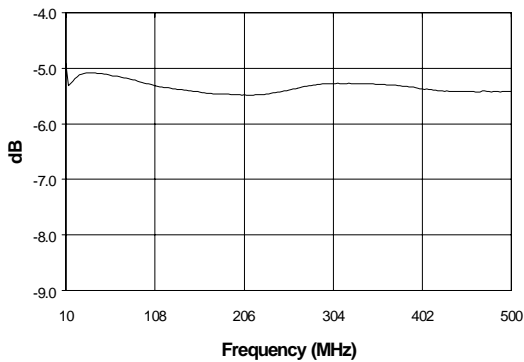
Parameter	Absolute Maximum
RF Power	50 mW
Peak IF Current	40 mA
Storage Temperature	-55°C to +100°C
Operating Temperature	-55°C to +100°C
Pin Temperature (10 Seconds)	260°C

Functional Configuration

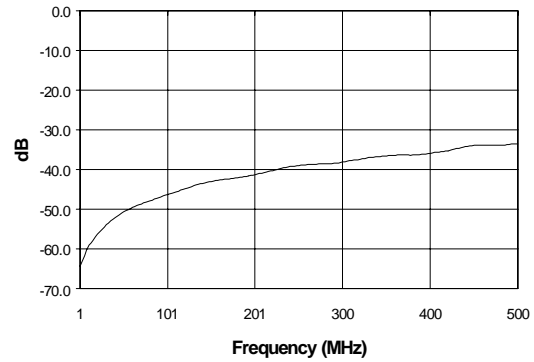
Function	Pin No.
LO	1
RF	4
IF	5
Ground	2, 3, 6
Case Ground	—
Unconnected	—

Typical Performance @ +25°C

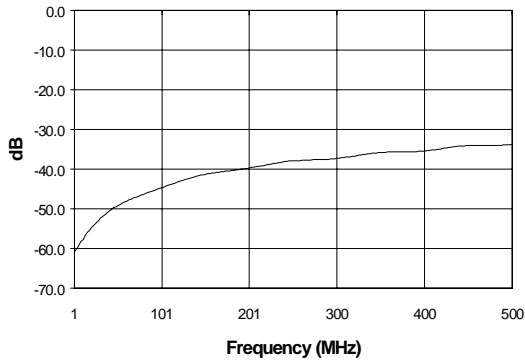
Conversion Loss



L-R Isolation



L-I Isolation



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