

E-Series Surface Mount Mixer 5 – 1000 MHz



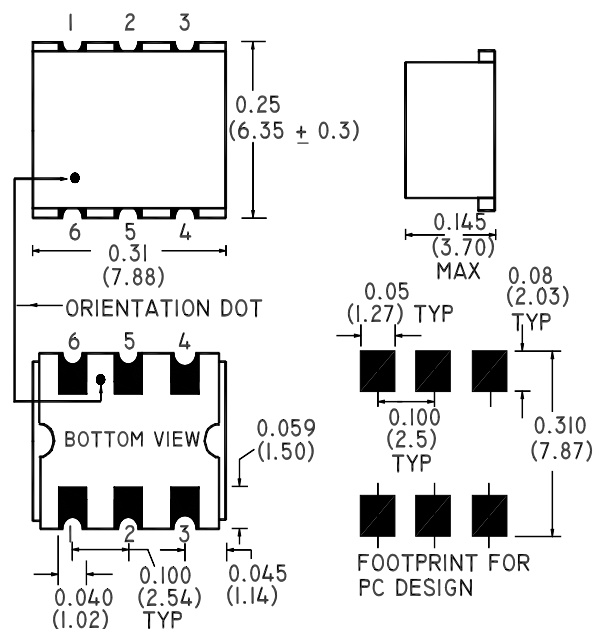
Features

- 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-2 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-2 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 5 - 1000	MHz	—	—	—
LO 5 - 1000	MHz	—	—	—
IF DC - 1000	MHz	—	—	—
Conversion Loss				
10 - 500	dB	—	6.5	8.0
5 - 1000	dB	—	7.0	9.5
Isolation (LO - RF)				
5 - 50	MHz	40	60	—
50 - 500	MHz	20	40	—
500 - 1000	MHz	18	25	—
Isolation (LO - IF)				
5 - 50	MHz	30	55	—
50 - 500	MHz	20	30	—
500 - 1000	MHz	12	20	—
RF Input for 1dB Compression	dBm	—	—	+1

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Absolute Maximum Ratings

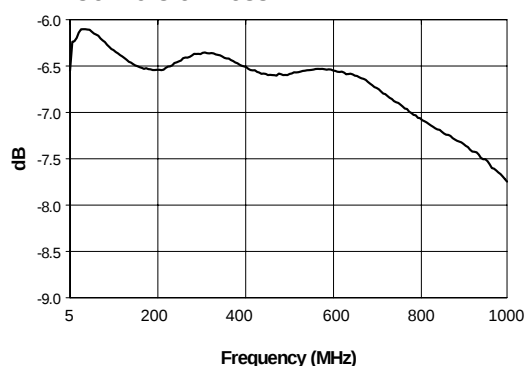
Parameter	Absolute Maximum
RF Power	50 mW
Peak IF Current	40 mA
Storage Temperature	-55°C to +100°C
Operating Temperature	-55°C to +100°C
Pin Temperature (10 Seconds)	260°C

Functional Configuration

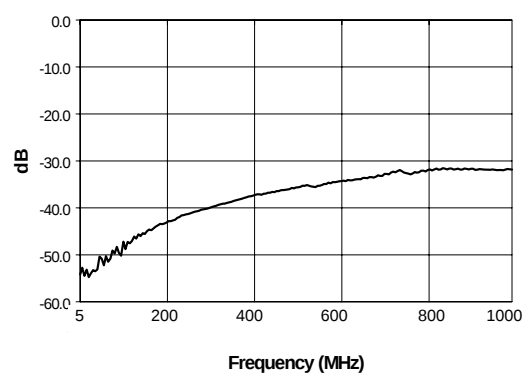
Function	Pin No.
LO	1
RF	4
IF	5
Ground	2, 3, 6
Case Ground	—
Unconnected	—

Typical Performance @ +25°C

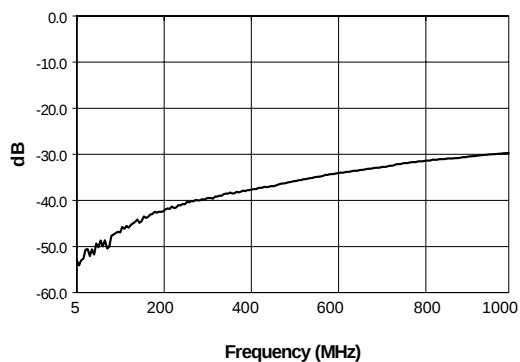
Conversion Loss



L-R Isolation



L-I Isolation



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