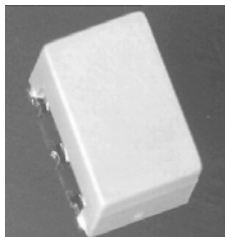


E-Series Surface Mount Mixer

0.5 – 500 MHz

Features

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

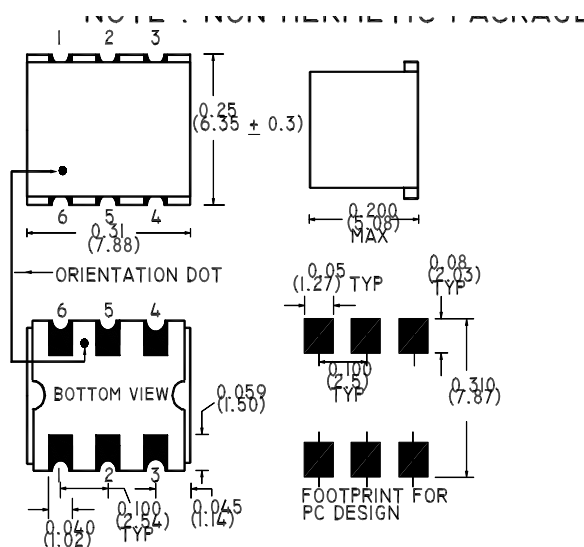


Description

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, Z₀ = 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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PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

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Absolute Maximum Ratings

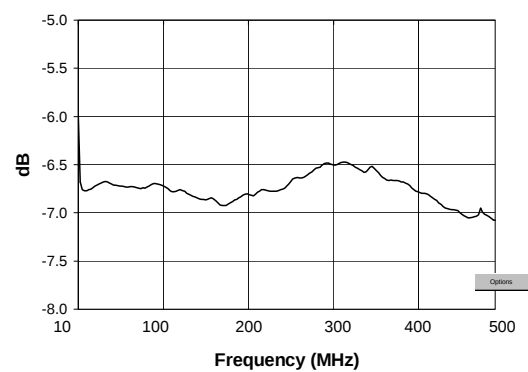
Parameter	Absolute Maximum
RF Power	200 mW
Peak IF Current	40 mA
Storage Temperature	-55°C to +100°C
Operating Temperature	-55°C to +100°C
Pin Temperature (10 Seconds)	260°C

Functional Configuration

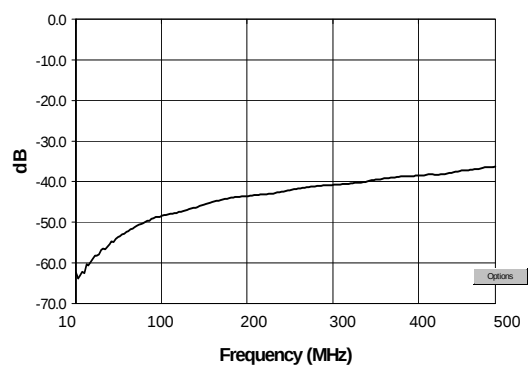
Function	Pin No.
LO	1
RF	4
IF	5
Ground	2, 3, 6
Case Ground	—
Unconnected	—

Typical Performance @ +25°C

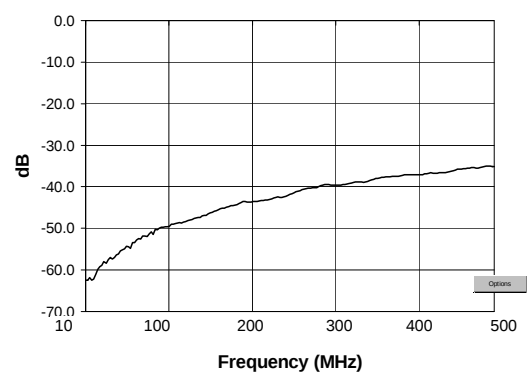
Conversion Loss



L-R Isolation



L-I Isolation



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