

## E-Series Surface Mount Mixer 0.5 – 500 MHz

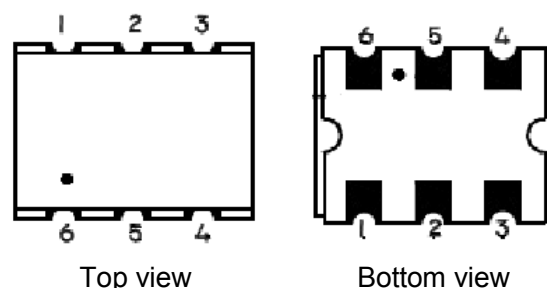
Rev. V1

### Features

- LO Power +17 dBm
- Up to +14 dBm RF
- Low Profile
- Surface Mount
- Tape and reel packaging available
- 260°C Reflow Compatible
- RoHS\* compliant version of the ELCM-1HTR

### Description

The MAMX-007607-ELCM1H is a 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. The mixer is available in an SM-87 surface mount package and is designed to be utilized in both standard reflow and high temperature soldering reflow profiles. Parts are packaged in tape & reel.



### Pin Configuration

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

### Electrical Specifications: $T_A = 25^\circ\text{C}$ , $Z_0 = 50\ \Omega$ , LO = +17 dBm

Parameter	Test Conditions	Units	Min.	Typ.	Max.
RF & LO Frequency	—	MHz	0.5	—	500
IF Frequency	—	MHz	DC	—	500
Conversion Loss	1 - 250 MHz 250 - 500 MHz	dB	—	6.8 7.2	7.5 8.0
Isolation - LO to RF	0.5 - 5 MHz 5 - 250 MHz 250 - 500 MHz	dB	50 35 30	55 40 35	—
Isolation - LO to IF	0.5 - 5 MHz 5 - 250 MHz 250 - 500 MHz	dB	45 30 27	55 35 35	—
Input 1 dB Compression	0.5 - 500 MHz	dBm	—	—	14

### Ordering Information

Part Number	Package
MAMX-007607-ELCM1H	900 piece reel

### Absolute Maximum Ratings<sup>1,2</sup>

Parameter	Absolute Maximum
RF Power	200 mW
Peak IF Current	40 mA
Operating Temperature	-55°C to +85°C
Storage Temperature	-65°C to +125°C

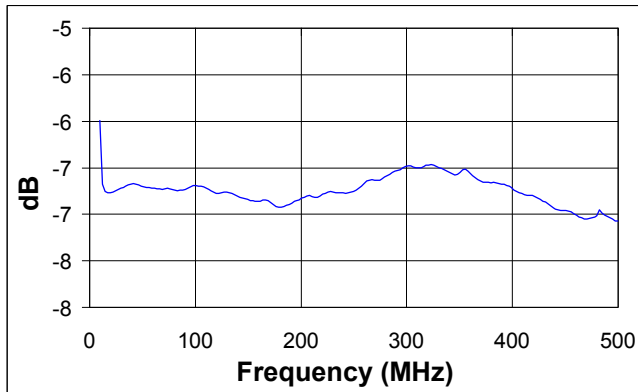
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

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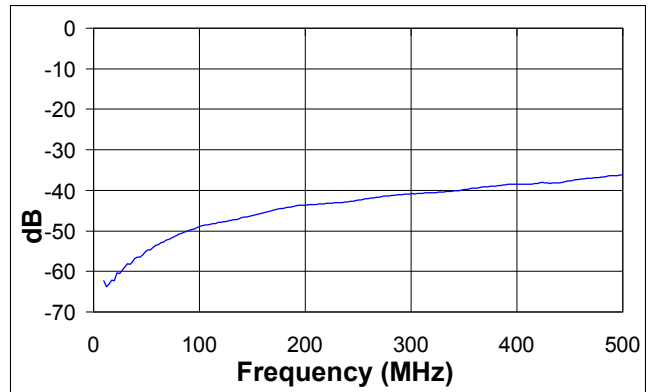
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### Typical Performance Curves

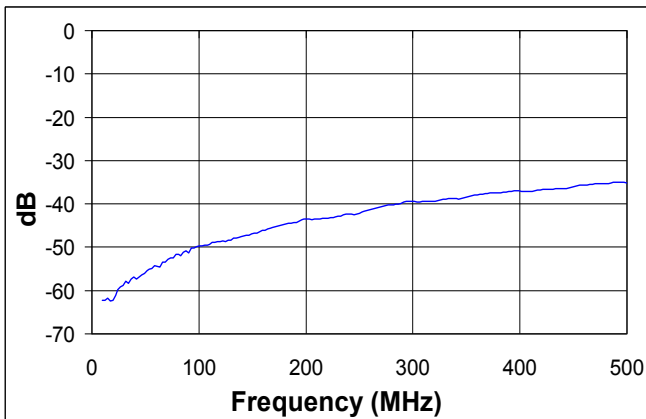
Conversion Loss



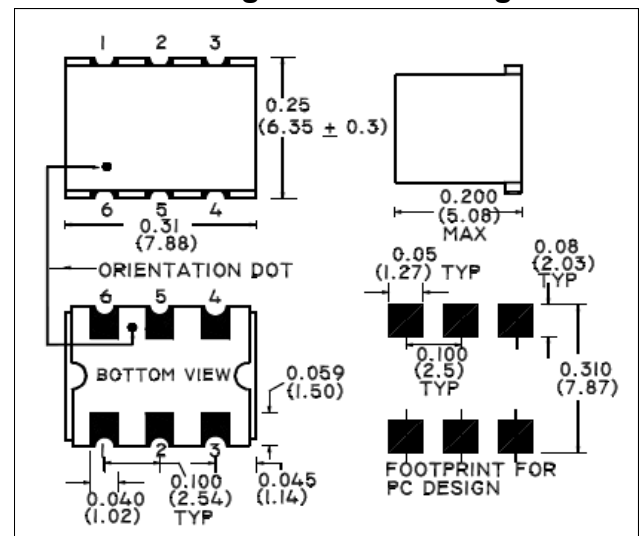
LO - RF Isolation



LO - IF Isolation



### Outline Drawing: SM - 87 Package



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