

E-Series Surface Mount Mixer 0.5 – 500 MHz

MAMX-007607-ELCM1H V1 P

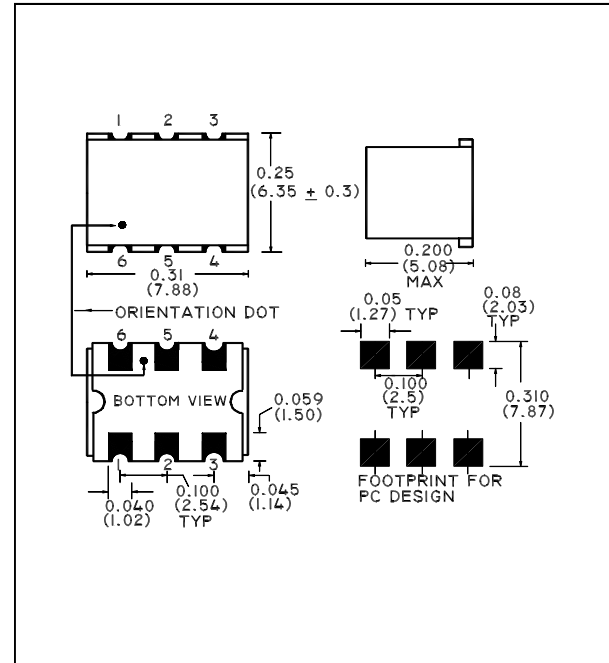
Features

- 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

M/A-COM's MAMX-007607-ELCM1H is a RoHS Compliant 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. The MAMX-007607-ELCM1H 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.

SM - 87 Package



Ordering Information

Part Number	Package
MAMX-007607-ELCM1H	Tape and Reel (900 piece Reel)

Absolute Maximum Ratings ^{1,2}

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. M/A-COM does not recommend sustained operation near these survivability limits.

Pin Configuration

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

This PRELIMINARY Data Sheet contains information regarding a product M/A-COM has under development. Performance is based on measured results and target specifications. Commitment to produce in volume is not guaranteed.

* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

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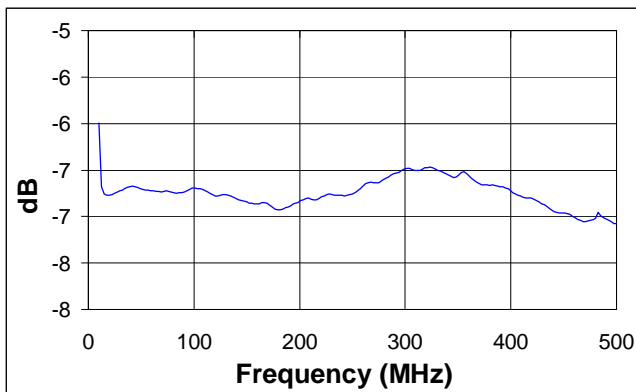
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Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$, LO = +17 dBm

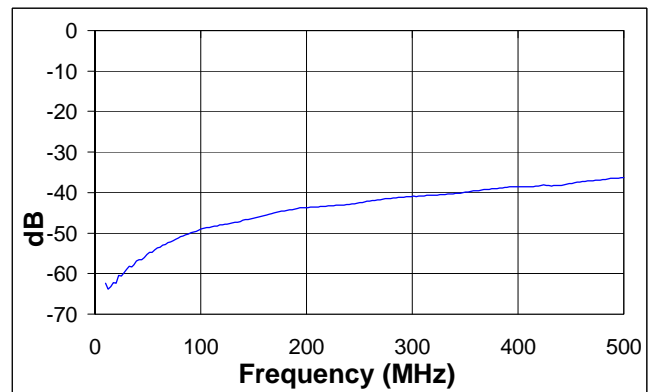
Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
RF Frequency	—	0.5 - 500	MHz	—	—	—
LO Frequency	—	0.5 - 500	MHz	—	—	—
IF Frequency	—	DC - 500	MHz	—	—	—
Conversion Loss	—	1 - 250	dB	—	6.8	7.5
		250 - 500	dB	—	7.2	8.0
Isolation	LO to RF	0.5 - 5	dB	50	55	—
		5 - 250	dB	35	40	—
		250 - 500	dB	30	35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

Typical Performance Curves

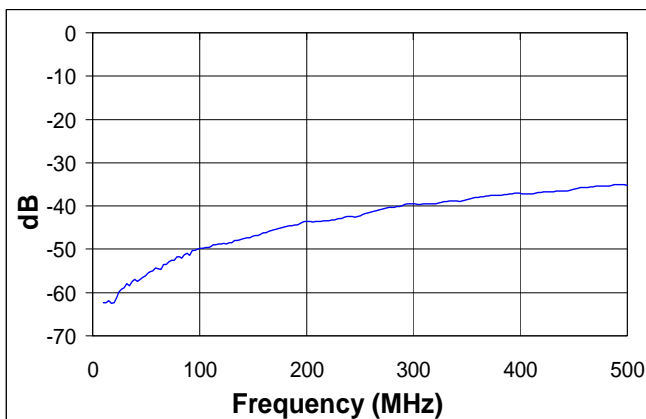
Conversion Loss



LO - RF Isolation



LO - IF Isolation



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ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

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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