MAMX-007238-CM25MH

E-Series Surface Mount Mixer
5-2500 MHz

Rev. V5

Features

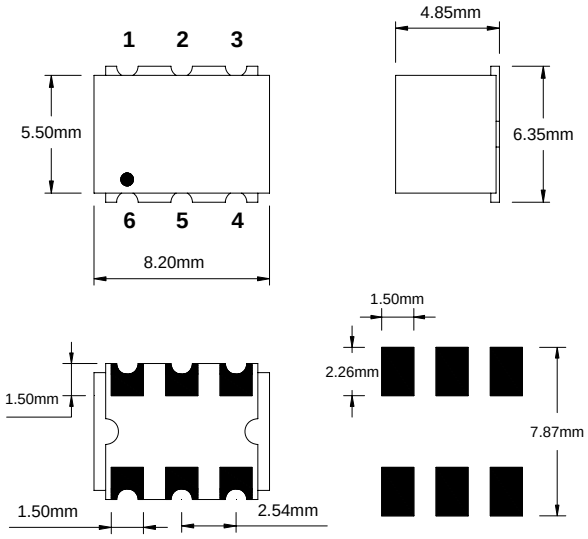
- LO Power +13 dBm
- Up to +9 dBm RF
- Surface Mount
- Tape and reel packaging
- 260°C Reflow Compatible
- RoHS* compliant version of the ELCM-25MH

Description

M/A-COM Technology Solutions part number MAMX-007238-CM25MH 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-007238-CM25MH is in a surface mount package and is designed to be utilized in both standard reflow and high temperature soldering reflow profiles.

Component Dimensions



Recommended PCB Layout

Dimensions in mm, Tolerance: .xx ± 0.3 , unless otherwise stated. Drawing not to scale.

Pin Configuration

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

Recommended Maximum Ratings [1,2]

Parameter	Value
RF Power	150 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 Technology Solutions does not recommend sustained operation near these survivability limits.

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

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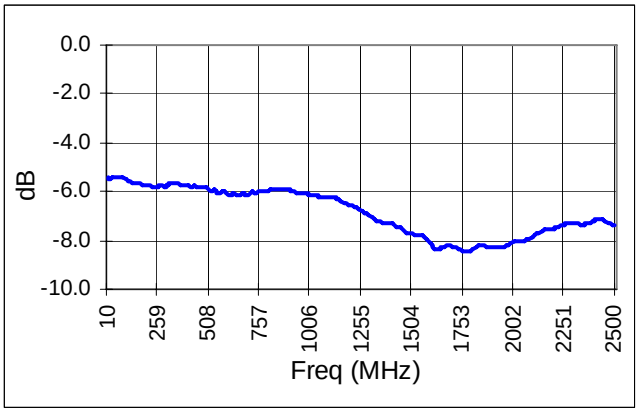
Electrical Specifications: T_A = 25°C, Z_0 = 50 Ohms, LO = +7dBm

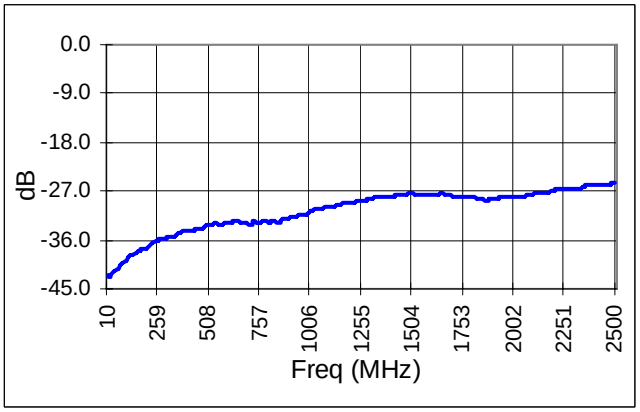
Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
RF Frequency	—	5 - 2500	MHz	—	—	—
LO Frequency	—	5 - 2500	MHz	—	—	—
IF Frequency	—	5 - 1500	MHz	—	—	—
Conversion Loss	—	10 - 1250 5 - 2500	dB dB	— —	6.3 7.3	8.5 9.8
Isolation	LO to RF	5 - 50 50 - 1250 1250 - 2500	dB dB	28 23 20	45 35 30	— — —
Isolation	LO to IF	5 - 50 50 - 1250 1250 - 2500	dB dB dB	23 20 17	40 30 25	— — —
Input 1 dB Compression	—	5 - 2500	dBm	—	—	9

Typical Performance Curves @ +25°C

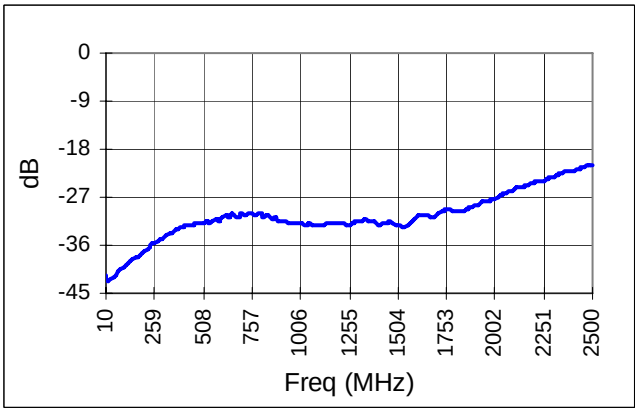
Conversion Loss



LO - RF Isolation



LO - IF Isolation



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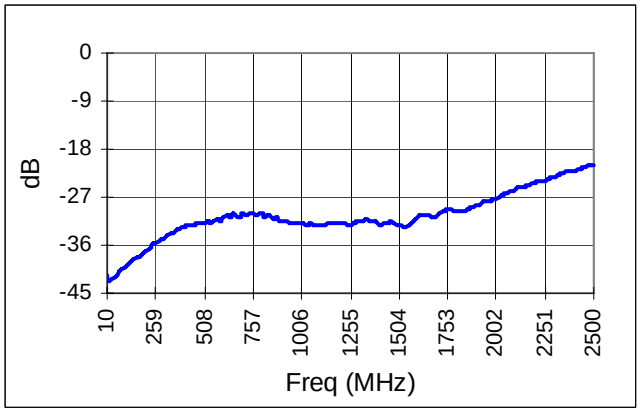
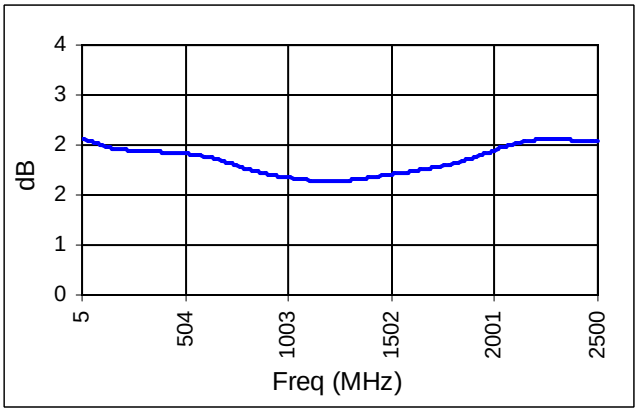
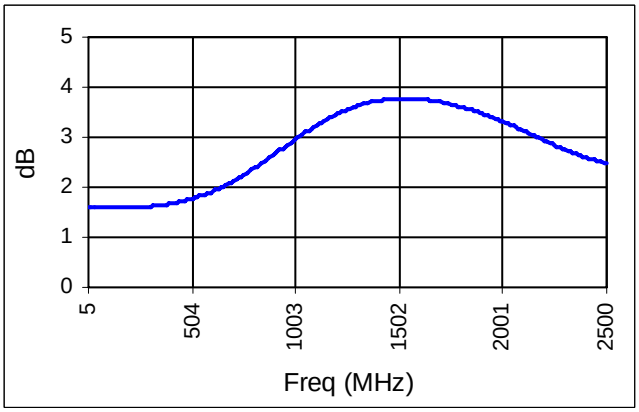


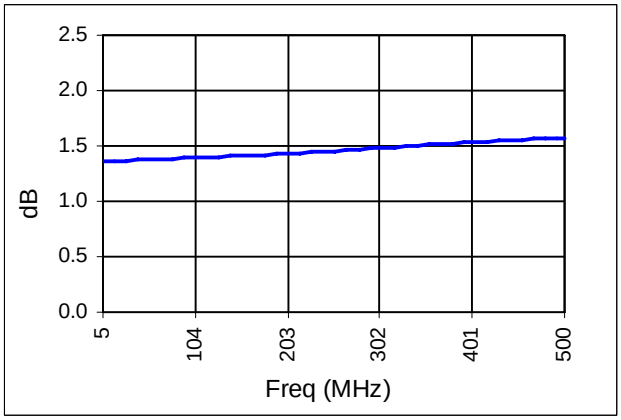
LO VSWR



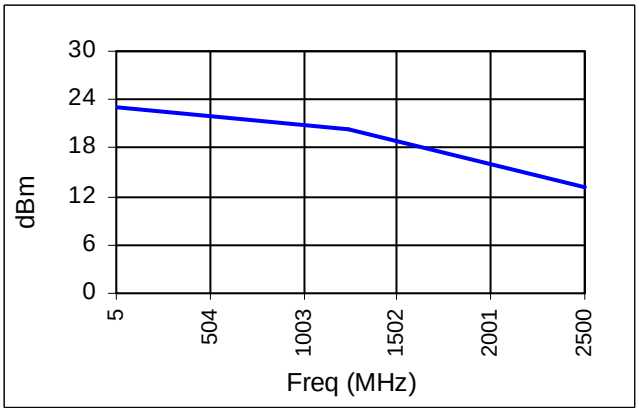
RF VSWR



IF VSWR



IP3



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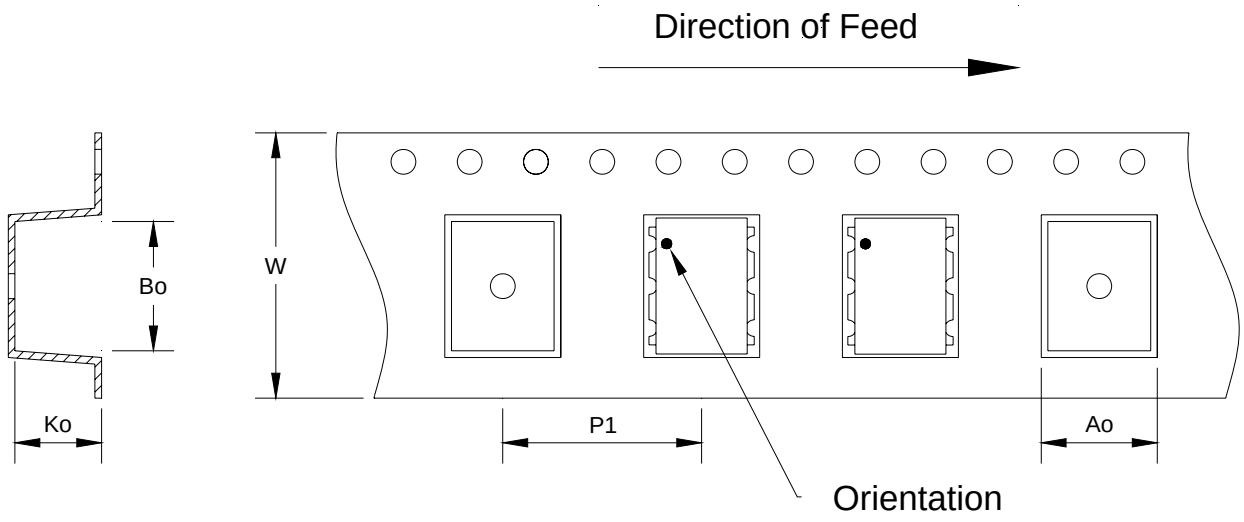
Tape & Reel Information



Item	Dimension
Ao	7.00mm +/- 0.1mm
Bo	8.60mm +/- 0.1mm
Ko	5.23mm +/- 0.1mm
W	16.00mm +/- 0.3mm
P1	12.00mm +/- 0.1mm

Ordering Information

Part Number	Package
MAMX-007238-CM25MH	Tape and Reel 900 pieces

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