## MACOM

Rev. V7

## E-Series Surface Mount Mixer 5-2500 MHz

#### 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.

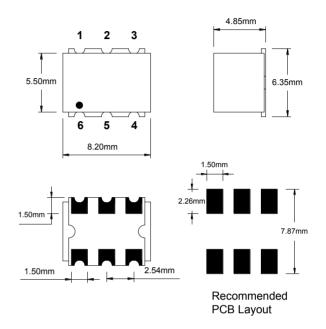
The MAMX-007238-CM25MH is in a surface mount package and is designed to be utilized in both standard reflow and high temperature soldering reflow profiles.

> 1062689/36 MANX-007238

## Pin Configuration

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

### **Component Dimensions**



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

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

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.

 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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<sup>1</sup> 



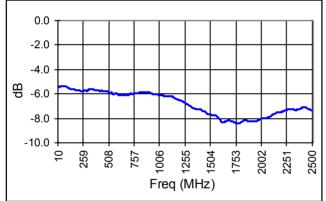
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## Electrical Specifications: $T_A = 25^{\circ}C$ , $Z_0 = 50$ Ohms, LO = +13dBm

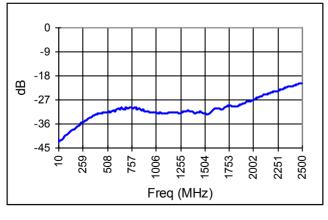
Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
RF Frequency	_	5 - 2500	MHz	_	-	-
LO Frequency	-	5 - 2500	MHz	_	_	_
IF Frequency	_	5 - 1500	MHz	_	_	_
Conversion Loss	-	10 - 1250 5 - 2500	dB dB	_	6.3 7.3	8.5 9.8
Isolation	LO to RF	5 - 50 50 - 1250 1250 - 2500	dB dB	28 23 20	45 35 30	
Isolation	LO 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** 



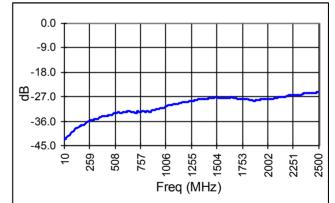
#### LO - IF Isolation



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#### LO - RF Isolation



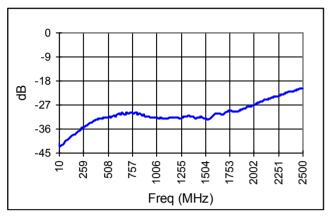
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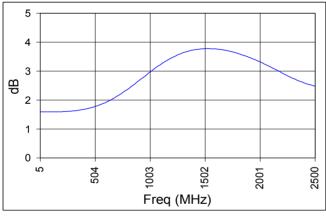
### E-Series Surface Mount Mixer 5-2500 MHz

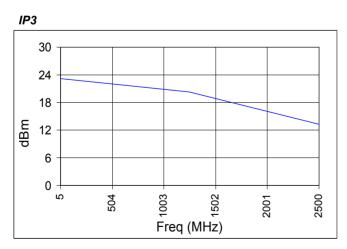
### Typical Performance Curves @ +25°C

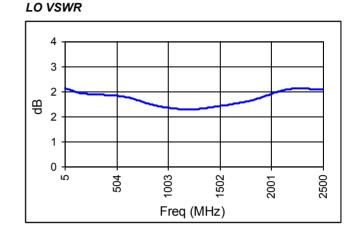
#### LO - IF Isolation



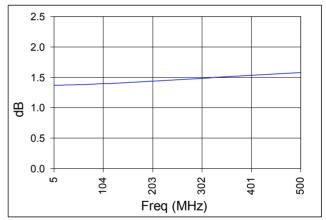
RF VSWR







IF VSWR



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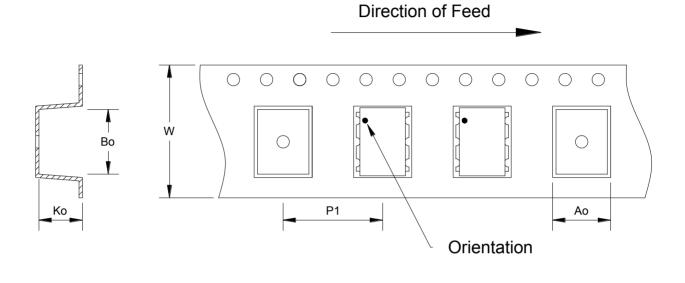
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#### Tape & Reel Information



ltem	Dimension	
Ao	7.00mm +/- 0.1mm	
Во	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

<sup>4</sup> 

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