

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

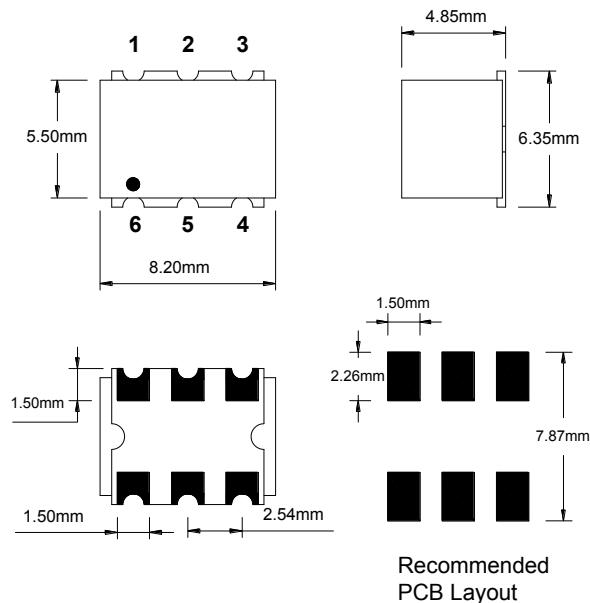
Description

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



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.

E-Series Surface Mount Mixer 5-2500 MHz

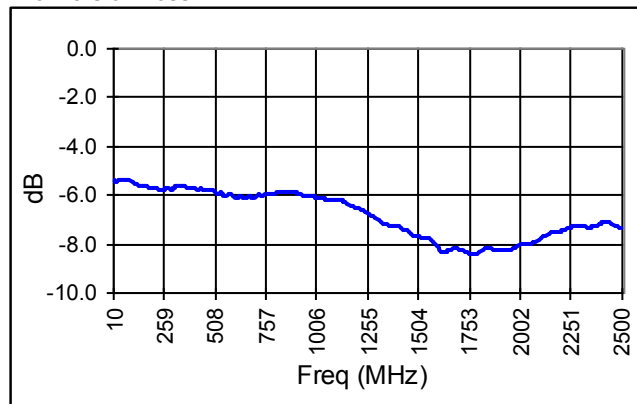
Rev. V7

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

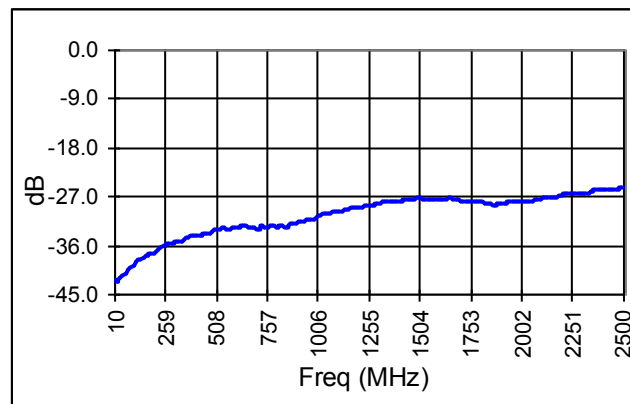
Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
RF Frequency	—	5 - 2500	MHz	—	—	—
LO Frequency	—	5 - 2500	MHz	—	—	—
IF Frequency	—	5 - 1500	MHz	—	—	—
Conversion Loss	—	10 - 1250	dB	—	6.3	8.5
		5 - 2500	dB	—	7.3	9.8
Isolation	LO to RF	5 - 50	dB	28	45	—
		50 - 1250	dB	23	35	—
		1250 - 2500	dB	20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

Typical Performance Curves @ +25°C

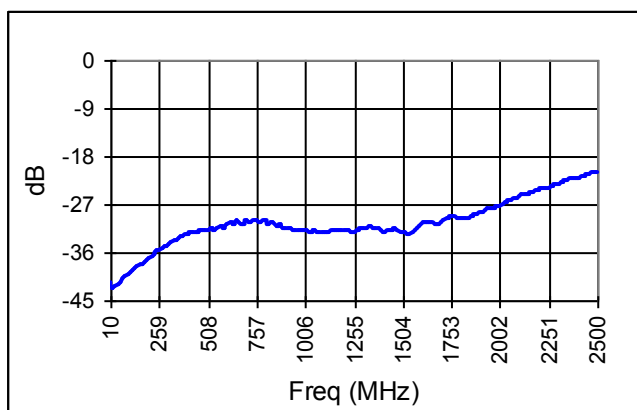
Conversion Loss



LO - RF Isolation

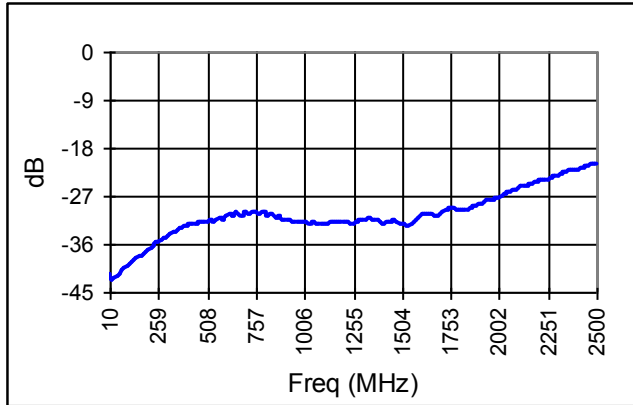


LO - IF Isolation

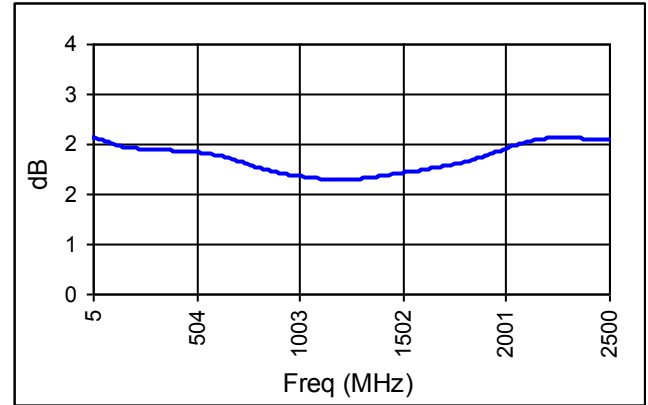


Typical Performance Curves @ +25°C

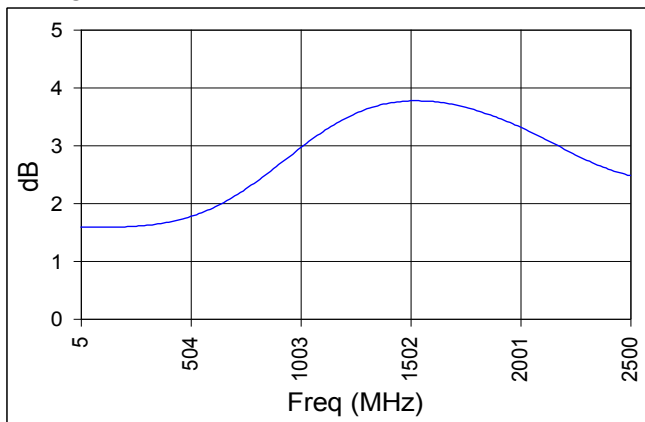
LO - IF Isolation



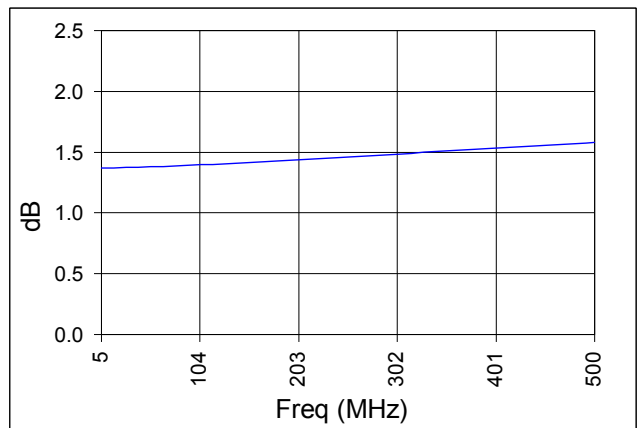
LO VSWR



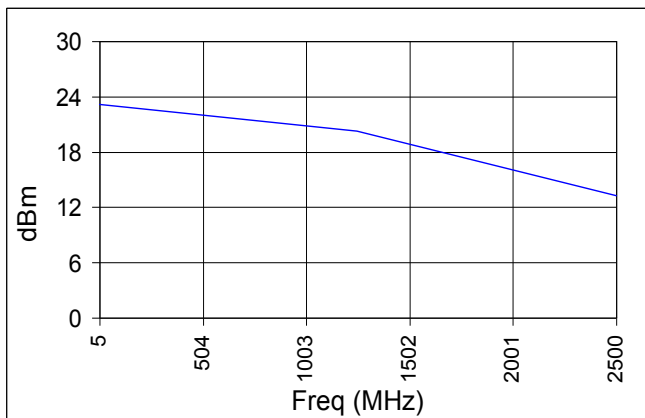
RF VSWR



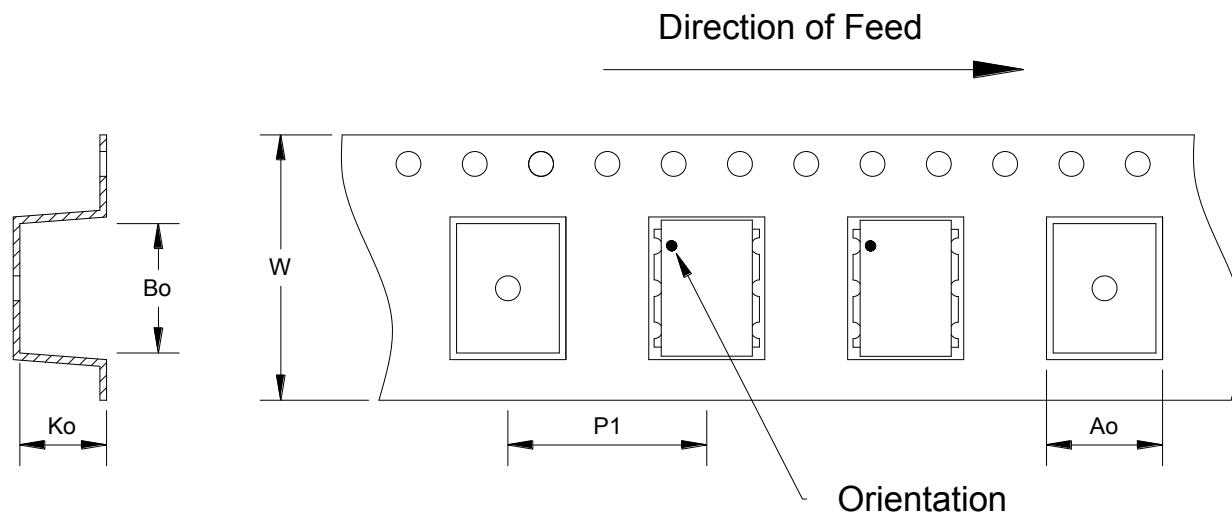
IF VSWR



IP3



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

M/A-COM Technology Solutions Inc. All rights reserved.

Information in this document is provided in connection with M/A-COM Technology Solutions Inc ("MACOM") products. These materials are provided by MACOM as a service to its customers and may be used for informational purposes only. Except as provided in MACOM's Terms and Conditions of Sale for such products or in any separate agreement related to this document, MACOM assumes no liability whatsoever. MACOM assumes no responsibility for errors or omissions in these materials. MACOM may make changes to specifications and product descriptions at any time, without notice. MACOM makes no commitment to update the information and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to its specifications and product descriptions. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document.

THESE MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF MACOM PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, CONSEQUENTIAL OR INCIDENTAL DAMAGES, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. MACOM FURTHER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. MACOM SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS, WHICH MAY RESULT FROM THE USE OF THESE MATERIALS.

MACOM products are not intended for use in medical, lifesaving or life sustaining applications. MACOM customers using or selling MACOM products for use in such applications do so at their own risk and agree to fully indemnify MACOM for any damages resulting from such improper use or sale.

5

M/A-COM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.
Visit www.macom.com for additional data sheets and product information.