

E-Series Surface Mount Mixer 10 - 2500 MHz

Rev. V3

Features

- LO Power +17 dBm
- Up to +13 dBm RF
- Surface Mount
- Wide Frequency Band
- RoHS* Compliant
- Tape and Reel Packaging



Description

The MAMX-009239-001500 is a high drive, surface mount mixer designed for use in high volume wireless applications.

This device is designed to be utilized in both standard reflow and high temperature soldering reflow profiles.

Pin Configuration

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

Electrical Specifications: RF Freq. = 10 - 2500 MHz, T_A = 25°C, Z₀ = 50 Ω, LO = 17 dBm

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Conversion Loss	Low Range, 10 - 1250 MHz Upper Range, 1250 - 2500 MHz	dB	—	5.5 7.6	7 9
LO-IF Isolation	Low Range, 10 - 1250 MHz Upper Range, 1250 - 2500 MHz	dB	30 23	40 30	—
LO-RF Isolation	Low Range, 10 - 1250 MHz Upper Range, 1250 - 2500 MHz	dB	35 23	40 35	—
IIP3	10 - 2500 MHz	dBm	23	25	31
RF Input for 1 dB Compression	10 - 2500 MHz	dBm	—	—	13

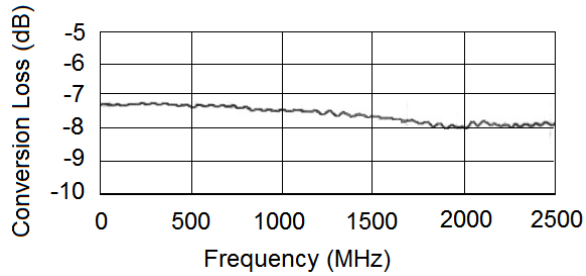
Ordering Information

Part Number	Package
MAMX-009239-001500	900 piece reel

Absolute Maximum Ratings

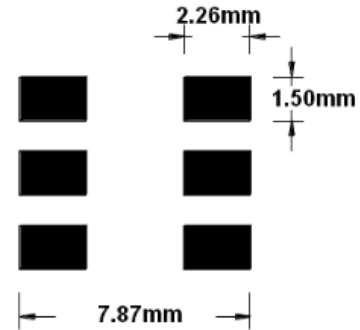
Parameter	Value
RF Power	50 mW
Peak IF Current	40 mA
Pin Temperature	260°C, 10 seconds
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

Typical Performance Curves¹

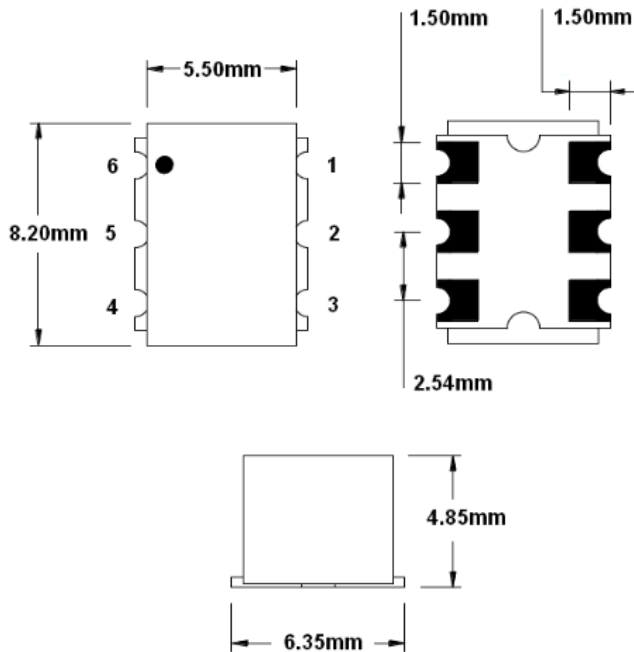


1. Full temperature plots available on request.

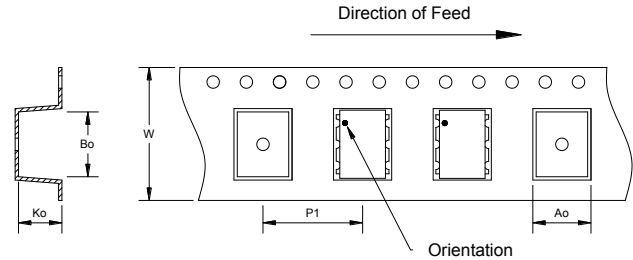
Recommended Board Layout



Outline Drawing



Carrier Tape Orientation



Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	900
Ao	mm	7.00 +/-0.1
Bo	mm	8.60 +/-0.1
Ko	mm	5.23 +/-0.1
W	mm	16.00 +/-0.3
P1	mm	12.00 +/-0.1

MACOM Technology Solutions Inc. All rights reserved.

Information in this document is provided in connection with MACOM 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.