

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, $T_A = 25^\circ\text{C}$, $Z_0 = 50 \Omega$, 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 |

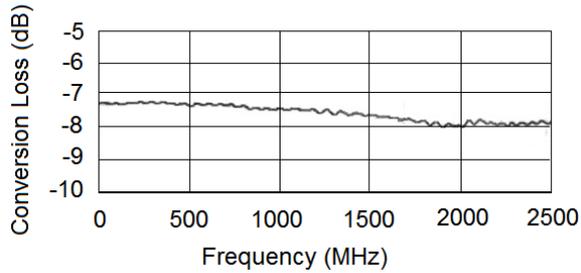
Ordering Information

| Part Number | Package |
|--------------------|----------------|
| MAMX-009239-001500 | 900 piece reel |

Absolute Maximum Ratings

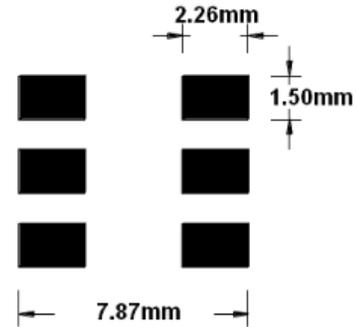
| Parameter | Value |
|-----------------------|-------------------|
| RF Power | 50 mW |
| Peak IF Current | 40 mA |
| Pin Temperature | 260°C, 10 seconds |
| Operating Temperature | -40°C to +85°C |
| Storage Temperature | -55°C to +125°C |

Typical Performance Curves¹

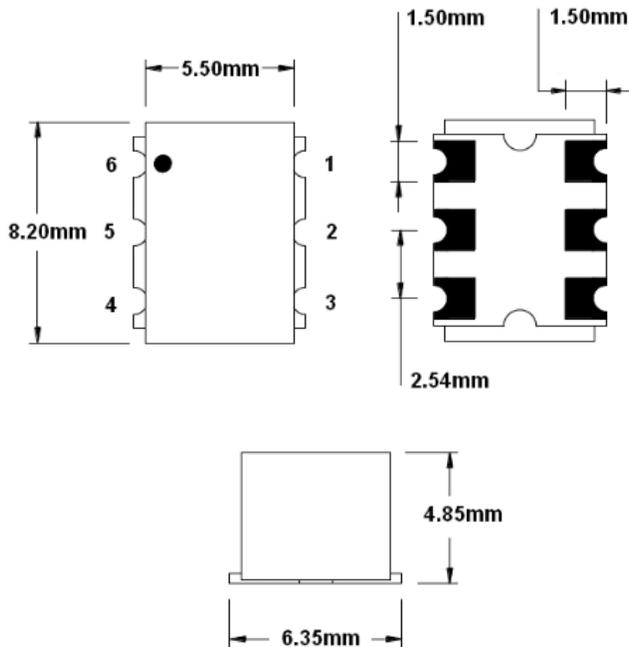


1. Full temperature plots available on request.

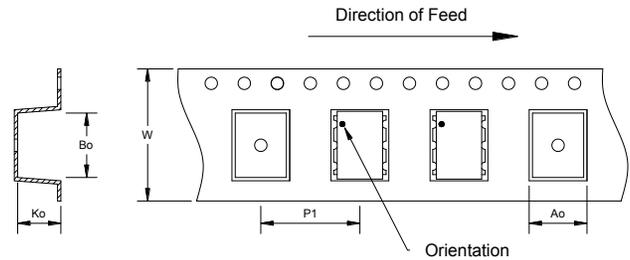
Recommended Board Layout



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 |

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