

E-Series Surface Mount Mixer 2-2200 MHz

M/A-COM Products
Advanced - Rev. V1

Features

- LO Power +23 dBm
- Up to +23 dBm RF
- Surface Mount
- Tape and reel packaging available
- 260°C Reflow Compatible
- RoHS* compliant

Product Image



Description

M/A-COM's MAMX-009646-23DBML is a RoHS Compliant Low Cost, Broadband, high performance Double Double Balanced Mixer designed for use in high volume wireless applications. The device has been optimized by careful selection of the FET and Balun Transformer for excellent performance. The MAMX-009646-23DBML is available in an LSM1 surface mount package and is designed to be utilized in both standard reflow and high temperature soldering reflow profiles. Parts are packaged in tape & reel.

Ordering Information

Part Number	Package
MAMX-009646-23DBML	Tape and Reel (900 piece Reel)

Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$, LO = +23 dBm

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
RF Frequency	—	2 - 2200	MHz	—	—	—
LO Frequency	—	2 - 2200	MHz	—	—	—
IF Frequency	—	2 - 2200	MHz	—	—	—
Conversion Loss	—	2 - 1100	dB	—	6.0	8.0
		1100 - 2000	dB	—	7.3	8.5
		2000 - 2200	dB	—	9.0	10.0
Isolation	LO to RF	2 - 1100	dB	30	47	—
		1100 - 2200	dB	20	25	—
Isolation	LO to IF	2 - 1100	dB	32	43	—
		1100 - 2200	dB	25	28	—
Input 1 dB Compression	—	2 - 2200	dBm	—	—	23
IIP3	—	2 - 2200	dB	30	33	—

Pin Configuration

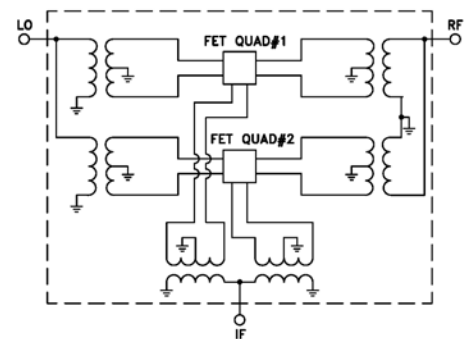
Pin No.	Function
10	LO
2	RF
14	IF
1,3,4,5,6,7,8,9, 11,12,13,15,16	Ground

Absolute Maximum Ratings ^{1,2}

Parameter	Absolute Maximum
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 does not recommend sustained operation near these survivability limits.

Schematic



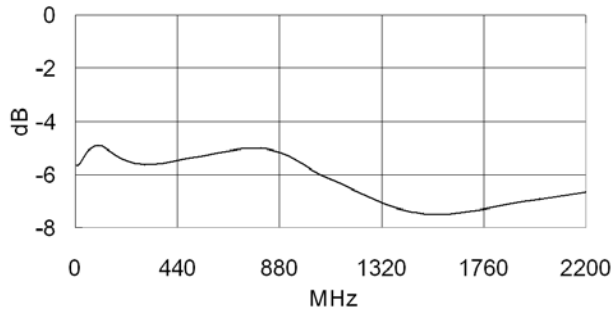
ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.
PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available.

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 Visit www.macomtech.com for additional data sheets and product information.

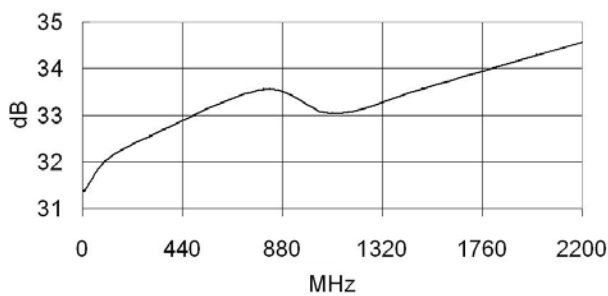
M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make

Typical Performance Curves at +25°C

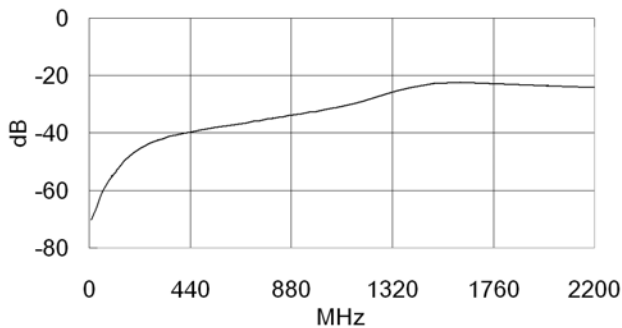
Conversion Loss



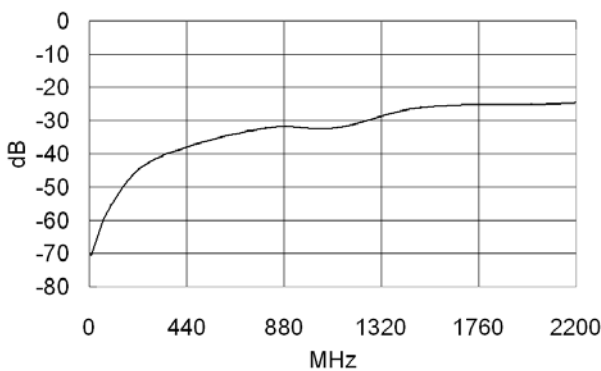
IIP3



LO-RF Isolation



LO-IF Isolation



SM-194 Package Outline Drawing

