

E-Series Surface Mount Mixer

350 – 2000 MHz

MAMXES0121
V1

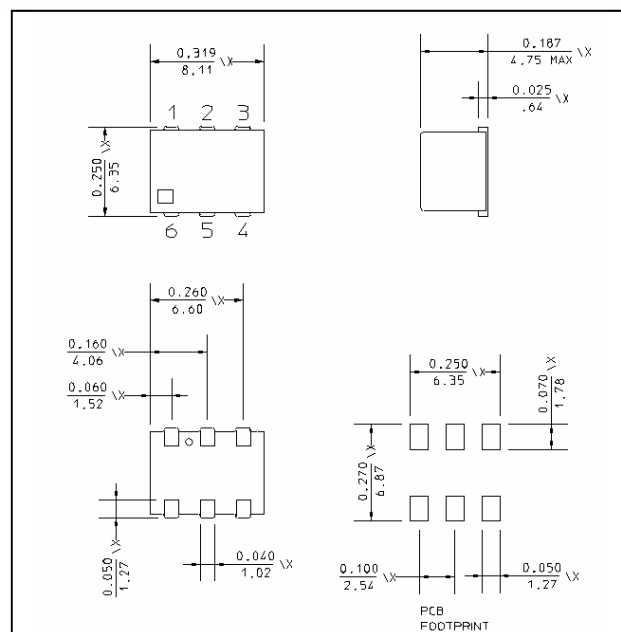
Features

- LO Power +7 dBm
- Up to +1 dBm RF
- Surface Mount
- RoHS Compliant
- Tape and reel packaging available

Description

M/A-COM's MAMXES0121 is a RoHS compliant device that is equivalent to the EMRS-11F mixer. This device is a Low Cost, Broadband, high performance Double Balanced Mixer designed for use in high volume wireless applications. The device has been optimised by careful selection of the Schottky Diode and Balun Transformer for excellent performance. The MAMXES0121 is available in an SM-1 surface mount package and reflows using both standard reflow and high temperature soldering reflow profiles. Parts are packaged in tape & reel.

Outline Drawing — SM-1



Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$ ¹, LO = +7 dBm

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
RF Frequency	—	350 - 2000	MHz	—	—	—
LO Frequency	—	350 - 2000	MHz	—	—	—
IF Frequency	—	DC - 400	MHz	—	—	—
Conversion Loss	—	350 - 1000 350 - 2000	dB dB	— —	5.5 6.8	7.0 9.2
Isolation	LO to RF	350 - 750 750 - 1000 1000 - 2000	dB dB dB	20 18 20	25 25 30	— — —
Isolation	LO to IF	350 - 750 750 - 1000 1000 - 2000	dB dB dB	14 22 22	22 29 28	— — —
Input 1 dB Compression	—	350 - 2000	dBm	—	—	1

Ordering Information

Part Number	Package
MAMXES00121	Tape and Reel (900 pieces/ Reel)

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Pin Configuration

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

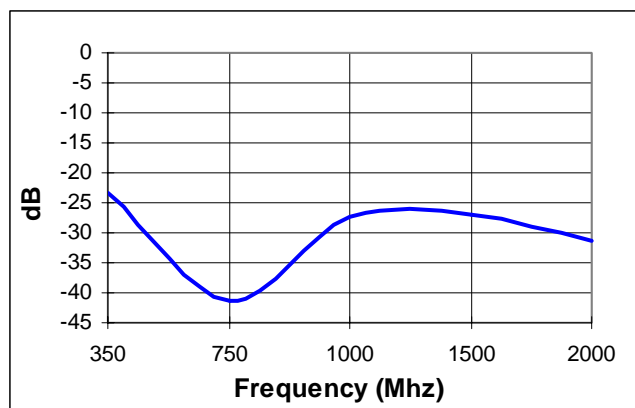
Absolute Maximum Ratings ¹

Parameter	Absolute Maximum
Max RF Power	50 mW
Peak IF Current	40 mA
Pin Temperature (10 seconds)	+260° C
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

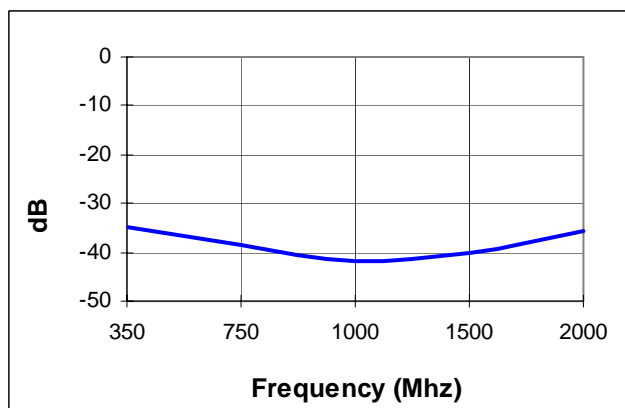
1. Operation of this device above any one of these parameters may cause permanent damage.

Typical Performance Curves

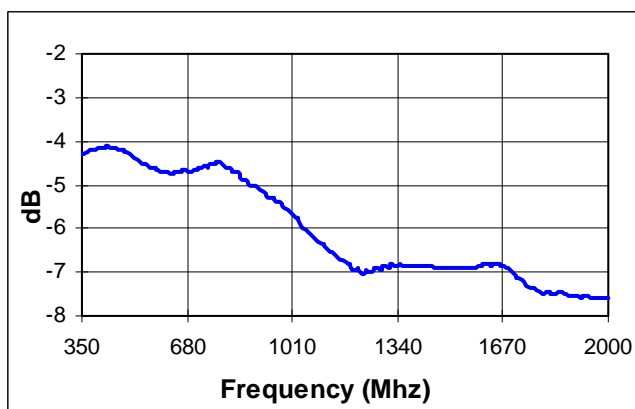
LO to IF Isolation



LO to RF Isolation



Conversion Loss @ 70 MHz



Conversion Loss @ 400 MHz

