

E-Series Surface Mount Mixer
5 – 1000 MHz

MAMXES0115
V4

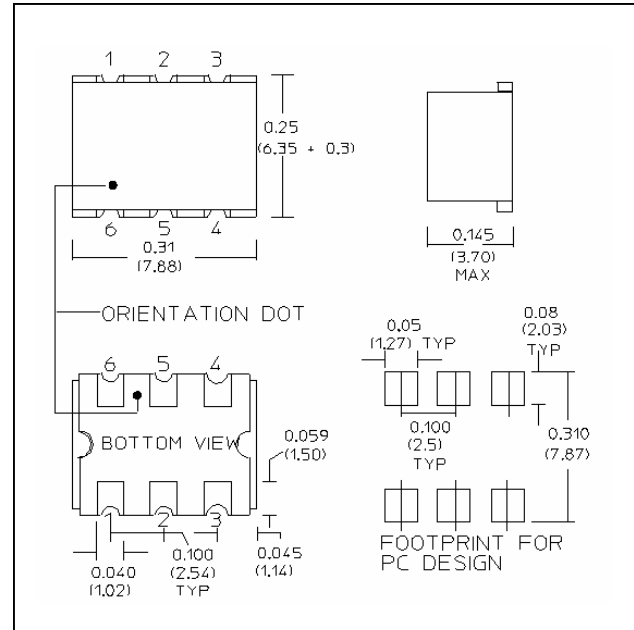
Features

- LO Power +7 dBm
- Up to +1 dBm RF
- Surface Mount
- Low Profile
- RoHS* Compliant version of the ELCM-2
- Tape and reel packaging available

Description

M/A-COM's MAMXES0115 is a RoHS compliant device that is equivalent to the ELCM-2 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 MAMXES0115 mixer is offered in an SM-89 surface mount package and is designed to be utilized in both standard reflow and high temperature soldering reflow profiles.

Outline Drawing — SM-89



Electrical Specifications: @ +25°C, Z₀ = 50 Ohms, LO = +7dBm

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
RF Frequency	—	5 - 1000	MHz	—	—	—
LO Frequency	—	5 - 1000	MHz	—	—	—
IF Frequency	—	DC - 1000	MHz	—	—	—
Conversion Loss	—	10 - 500 MHz	dB	—	6.5	8.0
		5 - 1000 MHz	dB	—	7.0	9.5
Isolation (LO - RF)	—	5 - 50 MHz	dB	40	50	—
		50 - 500 MHz	dB	20	40	—
		500 - 1000 MHz	dB	18	25	—
Isolation (LO - IF)	—	5 - 50 MHz	dB	45	55	—
		50 - 500 MHz	dB	20	30	—
		500 - 1000 MHz	dB	12	20	—
RF Input for 1 dB Compression	—	—	dBm	—	—	+1

Ordering Information

Part Number	Package
MAMXES0115	Tape and Reel (900 pieces/ Reel)

* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

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Pin Configuration

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

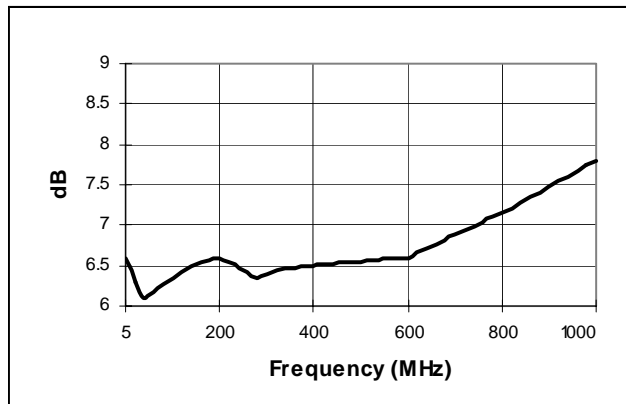
Absolute Maximum Ratings ¹

Parameter	Absolute Maximum
Max RF Power	50 mW
Peak IF Current	40 mA
Pin Temperature (10 sec-onds)	260° C
Operating Temperature	-55°C to +100°C
Storage Temperature	-65°C to +125°C

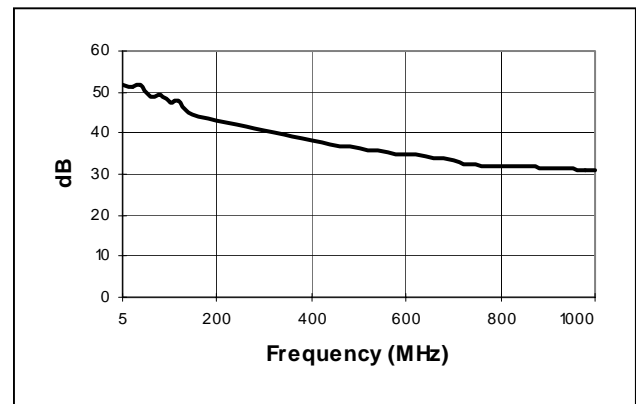
1. Operation of this device above any one of these parameters may cause permanent damage.

Typical Performance Curves

Conversion Loss



L-R Isolation



L-I Isolation

