

# E-Series Surface Mount Mixer 5 – 1000 MHz

MAMXES0115 V4

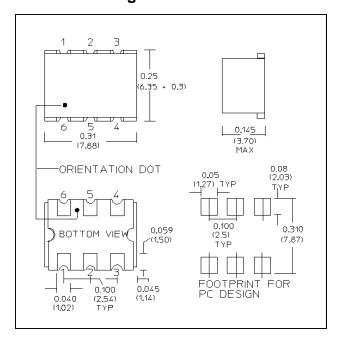
#### **Features**

- 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, $Z_0 = 50$ Ohms, LO = +7dBm

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

### **Ordering Information**

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

<sup>\*</sup> Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

<sup>•</sup> North America Tel: 800.366.2266 • Europe Tel: +353.21.244.6400

India Tel: +91.80.4155721
 China Tel: +86.21.2407.1588
 Visit www.macomtech.com for additional data sheets and product information.



## **E-Series Surface Mount Mixer** 5 – 1000 MHz

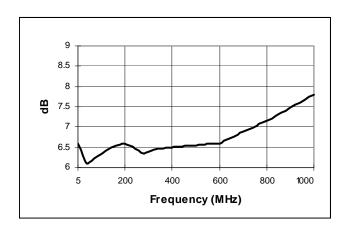
MAMXES0115

## **Pin Configuration**

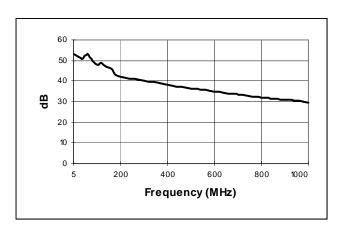
Pin No.	Function
1	LO
2	Ground
3	Ground
4	RF
5	IF
6	Ground

## **Typical Performance Curves**

#### **Conversion Loss**



#### L-I Isolation

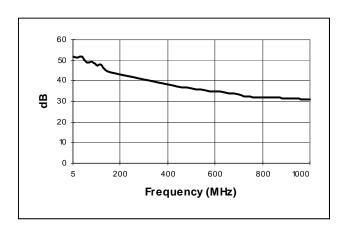


## Absolute Maximum Ratings 1

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

<sup>1.</sup> Operation of this device above any one of these parameters may cause permanent damage.

#### L-R Isolation



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. Commitment to produce in volume is not guaranteed.

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

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,

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