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Electronics

# LEAD



MAMXES0121

**V1** 

# E-Series Surface Mount Mixer 350 – 2000 MHz

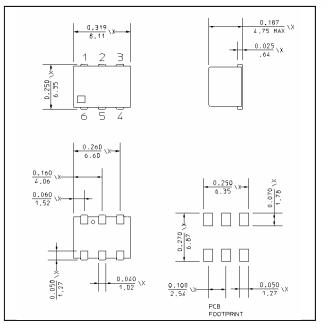
### Features

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

Parameter	Test Conditions	Frequency	Units	Min	Тур	Мах
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)	

- North America Tel: 800.366.2266 / Fax: 978.366.2266
- Europe Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298

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E-Series Surface Mount Mixer 350 – 2000 MHz MAMXES0121 V1

# **Pin Configuration**

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

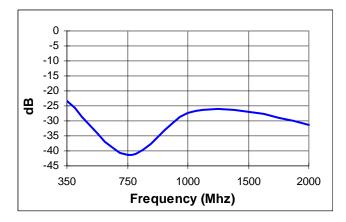
# Absolute Maximum Ratings<sup>1</sup>

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		

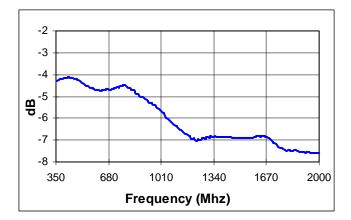
1. Operation of this device above any one of these parameters may cause permanent damage.

## **Typical Performance Curves**

LO to IF Isolation



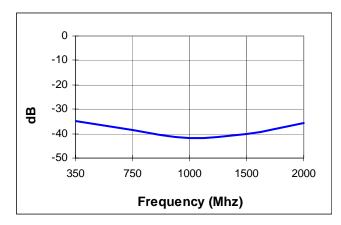
#### Conversion Loss @ 70 MHz



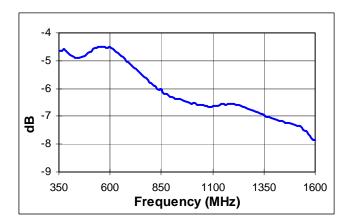
<sup>2</sup> 

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#### LO to RF Isolation



#### Conversion Loss @ 400 MHz



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