



# High IP3 Mixer, 235 - 245 MHz

V 1P.00

Preliminary

MAMXES0103

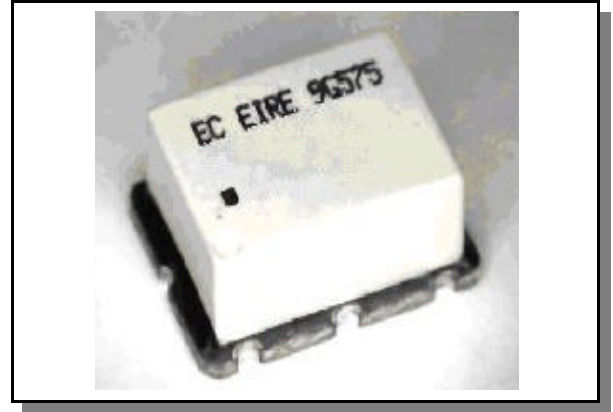
## Features

- Very High IP3, >+30.0 dBm
- Small SMT footprint
- +17 dBm LO Drive

## Description

M/A-COM's MAMXES0103 uses a novel FET design to achieve very high linearity without external biasing.

## SM2



## Pin Configuration

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

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

Parameter	Absolute Maximum
RF Input Power	+22 dBm
Peak IF Current	40 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

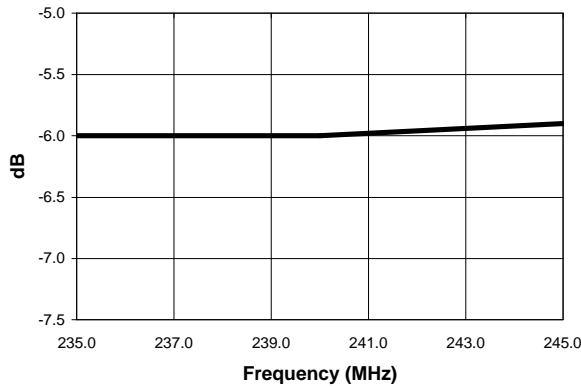
1. Operation of this device above any one of these parameters may cause permanent damage.

## Electrical Specifications: $T_A = 25^\circ\text{C}$ , Impedance = 50 Ohms, LO Drive = +17 dBm

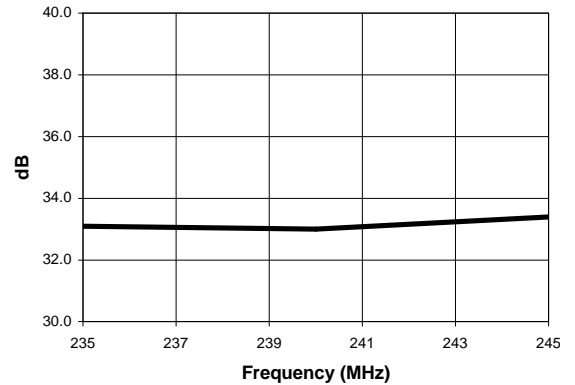
Parameter	Frequency (MHz)	Units	Minimum	Typical	Maximum
Frequency Range	RF: 235-245 LO: 255.36 IF: 10.36-20.36	— — —	— — —	— — —	— — —
Conversion loss	235-245	dB	—	6.0	7.5
L-R Isolation	255.36	dB	35.0	40.0	—
L-I Isolation	255.36	dB	35.0	45.0	—
R-I Isolation	235-245	dB	35.0	45.0	—
LO VSWR	255.36	—	—	1.4:1	—
RF VSWR	235-245	—	—	1.7:1	—
IF VSWR	10.36-20.36	—	—	1.9:1	—
Input IP3	235-245	dBm	30.0	36.0	—
1 dB Compression		dBm	—	22.0	—

### Typical Performance Curves

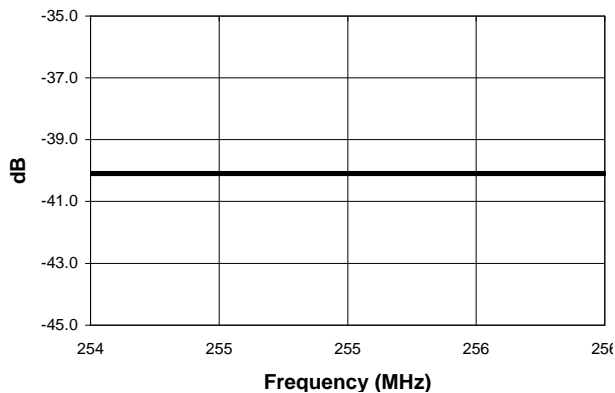
**Conversion Loss**



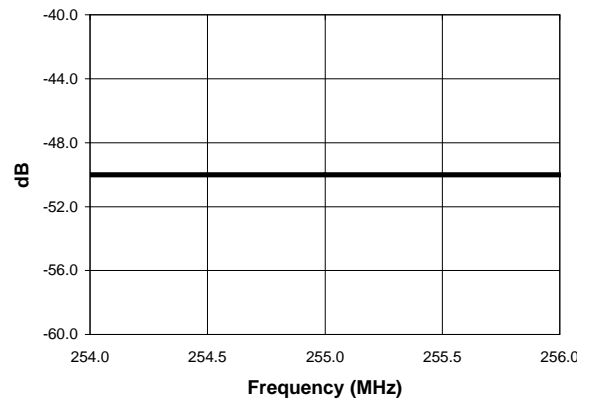
**Input IP3**



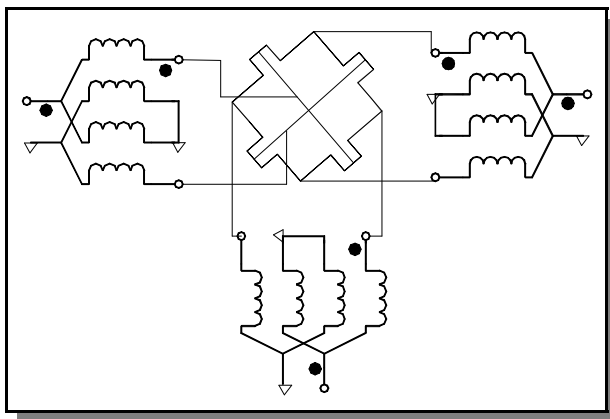
**LO-RF ISOLATION**



**LO-IF ISOLATION**



### Schematic

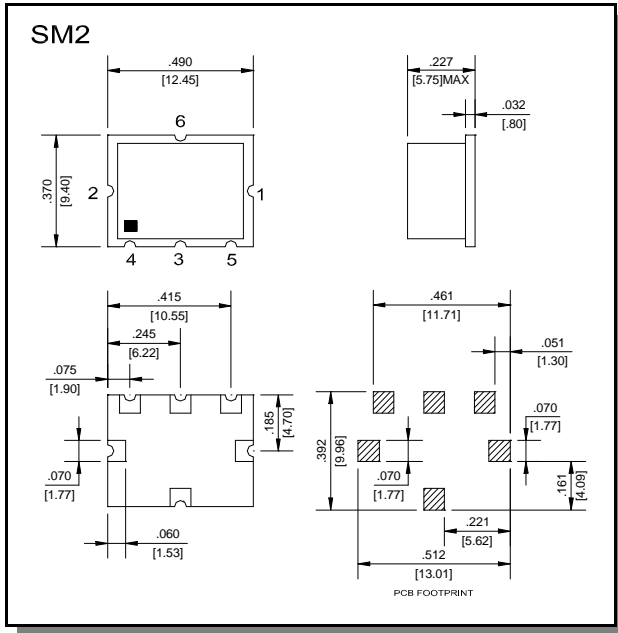


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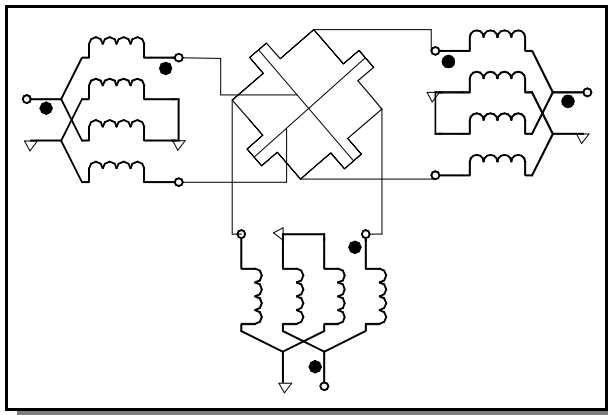
SM2



Ordering Information

Part Number	Package
MAMXES0103	Tape & Reel

Schematic



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