

**E-Series Surface Mount High IP3 Mixer  
235 – 245 MHz**

**MAMX-007242-ES0103  
V1 P**

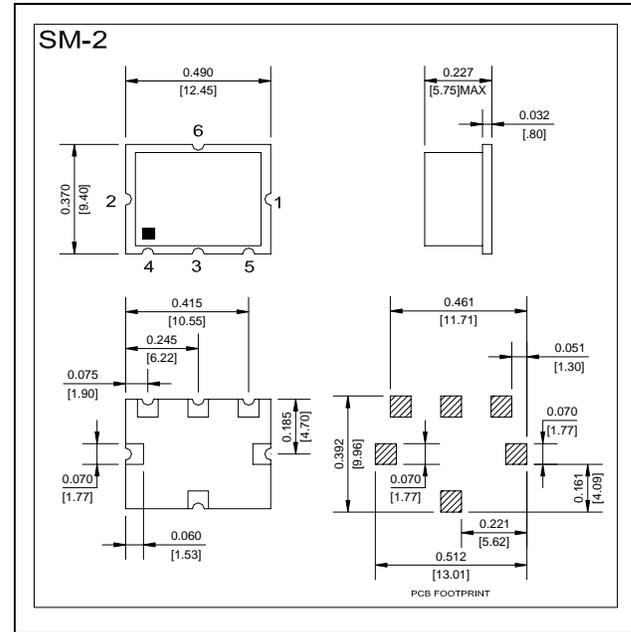
**Features**

- LO Power +17 to +21 dBm
- High IP3 >+30 dBm
- Surface Mount
- Tape and reel packaging available
- 260°C Reflow Compatible
- RoHS\* compliant version of the MAMXES0103

**Description**

M/A-COM's MAMX-007242-ES0103 is a RoHS Compliant Low Cost Mixer designed for use in high volume wireless applications. The device uses a novel FET design to achieve very high linearity without external biasing. The MAMX-007242-ES0103 is available in an SM-2 surface mount package and is designed to be utilized in both standard reflow and high temperature soldering reflow profiles. Parts are packaged in tape & reel.

**SM - 2 Package**



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**Ordering Information**

Part Number	Package
MAMX-007242-ES0103	Tape and Reel (500 piece Reel)

**Absolute Maximum Ratings** <sup>1,2</sup>

Parameter	Absolute Maximum
RF Input Power	+22 dBm
Peak IF Current	30mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +125°C

1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

**Pin Configuration**

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

**This PRELIMINARY Data Sheet contains information regarding a product M/A-COM has under development. Performance is based on measured results and target specifications. Commitment to produce in volume is not guaranteed.**

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

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**Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 50\Omega$ , LO = +17 to +21 dBm**

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
RF Frequency	—	235 - 245	MHz	—	—	—
LO Frequency	—	255.36	MHz	—	—	—
IF Frequency	—	10.36 - 20.36	MHz	—	—	—
Conversion Loss	—	235 - 245	dB	—	6.0	7.5
Isolation	LO to RF	10 – 2000	dB	35.0	40.0	—
Isolation	LO to IF	10 – 2000	dB	35.0	45.0	—
Isolation	RF to IF	235-245	dB	35.0	45.0	—
LO Return Loss	—	255.36	dB	6	—	—
RF Return Loss	—	235-245	dB	10	—	—
IF Return loss	—	10.36-20.36	dB	10	—	—
Input IP3	—	235-245	dBm	30.0	36.0	—
Noise Figure	—	235-245	dBm	—	7.0	9.5
1 dB Compression	—	—	dBm	—	22.0	—