

**E-Series Surface Mount Mixer**  
880 – 915 MHz

**MAMXES0120**  
V2

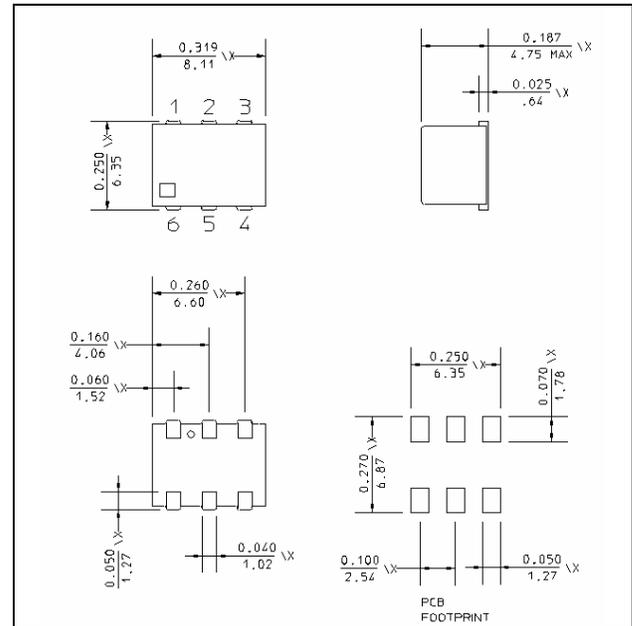
**Features**

- LO Power +17 dBm
- Up to +13 dBm RF
- Surface Mount
- RoHS\* Compliant version of the EMRS-6HX1
- Tape and reel packaging available

**Description**

M/A-COM's MAMXES0120 is a RoHS compliant device that is equivalent to the EMRS-6HX1 mixer. This device is a Low Cost, Low Drive, surface mount Mixer designed for use in high volume wireless applications. The MAMXES0120 mixer is offered in an SM-1 surface mount package and is designed to be utilized in both standard reflow and high temperature soldering reflow profiles.

**Outline Drawing — SM-1**



**Electrical Specifications: @ -10°C — +85°C, Z<sub>0</sub> = 50 Ohms, LO = +17dBm**

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
RF Frequency	—	880 - 915	MHz	—	—	—
LO Frequency	—	1000 - 1130	MHz	—	—	—
IF Frequency	—	150 - 170	MHz	—	—	—
Conversion Loss	—	880 - 915 MHz	dB	—	5.5	8.0
Isolation (LO - RF)	—	1000 - 1130 MHz	dB	25	30	—
Isolation (LO - IF)	—	1000 - 1130 MHz	dB	25	30	—
RF Input for 1 dB Compression	—	—	dBm	—	—	+13
IIP3	—	880 - 915	dBm	23	27	—
RF VSWR	—	880 - 915	Ratio	1.7:1	2.0:1	2.3:1
LO VSWR	—	880 - 915	Ratio	1.3:1	1.5:1	1.8:1
IF VSWR	—	880 - 915	Ratio	1.0:1	1.2:1	1.4:1

**Ordering Information**

Part Number	Package
MAMXES00120	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 <sup>1</sup>

Parameter	Absolute Maximum
Max RF Power	50 mW
Peak IF Current	40 mA
Pin Temperature (10 seconds)	260° C
Operating Temperature	-10°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.