

**E-Series Surface Mount Mixer  
5 – 1500 MHz**

**MAMX-007247-MRS5MH  
V1P**

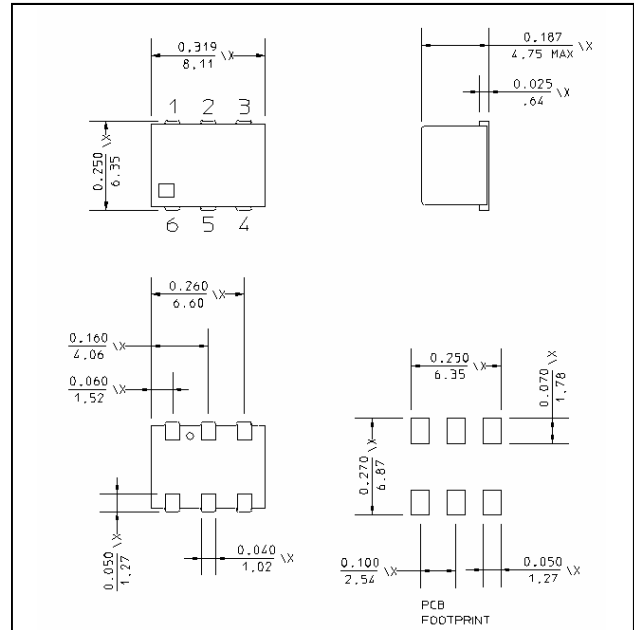
**Features**

- LO Power +13 dBm
- Up to +9 dBm RF
- Surface Mount
- RoHS\* Compliant version of the EMRS-5MH
- Tape and reel packaging available

**Description**

M/A-COM's MAMX-007247-MRS5MH is a RoHS compliant Low Cost, medium Drive, surface mount Mixer designed for use in high volume wireless applications. The MAMX-007247-MRS5MH mixer is offered in an SM-1 surface mount package. The mixer is designed to be utilized in both standard reflow and high temperature soldering reflow profiles. Parts are packaged in tape & reel.

**SM-1 Package**



**Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 50\Omega$ <sup>1</sup>**

| Parameter             | Test Conditions   | Frequency                        | Units    | Min            | Typ            | Max        |
|-----------------------|-------------------|----------------------------------|----------|----------------|----------------|------------|
| RF Frequency          | DC bias 5V ± 0.3V | 5 - 1500                         | MHz      | —              | —              | —          |
| LO Frequency          | DC bias 5V ± 0.3V | 5 - 1500                         | MHz      | —              | —              | —          |
| IF Frequency          | DC bias 5V ± 0.3V | DC - 1000                        | MHz      | —              | —              | —          |
| Conversion Loss       | —                 | 10 - 750<br>5 - 1500             | dB<br>dB | -              | 6.5<br>7.5     | 7.5<br>9.5 |
| Isolation             | LO to RF          | 5 - 50<br>50 - 750<br>750 - 1500 | dB       | 40<br>20<br>18 | 60<br>40<br>30 | —          |
| Isolation             | LO to IF          | 5 - 50<br>50 - 750<br>750 - 1500 | dB       | 30<br>18<br>8  | 55<br>30<br>15 | —          |
| Input 1dB Compression | —                 | 810 - 1000                       | dBm      | —              | 9.0            | —          |

**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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### Pin Configuration

| Pin No. | Function |
|---------|----------|
| 1       | LO I/P   |
| 2       | Ground   |
| 3       | Ground   |
| 4       | RF O/P   |
| 5       | IF I/P   |
| 6       | Ground   |

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

| Parameter                    | Absolute Maximum |
|------------------------------|------------------|
| RF Power                     | 150 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.

### Ordering Information

| Part Number        | Package                          |
|--------------------|----------------------------------|
| MAMX-007247-MRS5MH | Tape and Reel (900 pieces/ Reel) |