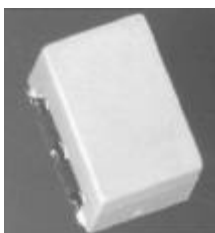


# E-Series Surface Mount Mixer 5 – 1900 MHz



## Features

- LO Power +7 dBm
- Up to +1 dBm RF
- Surface Mount

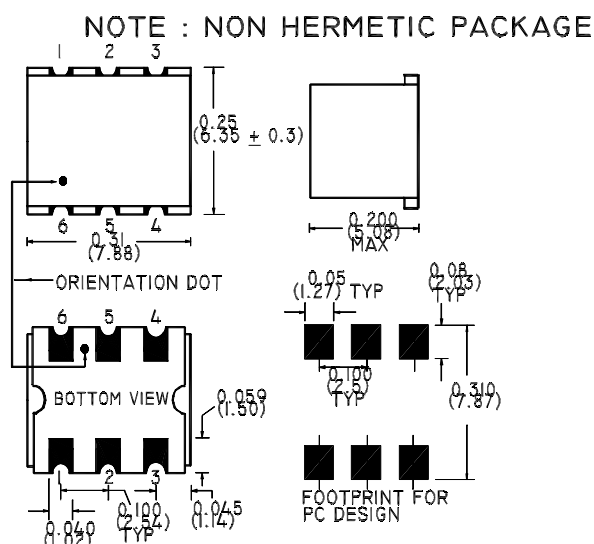


## Description

M/A-COM's MAMXES0001 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. MAMXES0001 is available in an SM-87 surface mount package and reflows using standard soldering reflow profiles.

## SM-87 Package

Note: Non Hermetic Package



## Electrical Specifications @ +25°C, Z<sub>0</sub> = 50 Ohms, LO = +7dBm

| Parameter                    | Units | Minimum | Typical | Maximum |
|------------------------------|-------|---------|---------|---------|
| Frequency Range              |       |         |         |         |
| RF 5 - 1900                  | MHz   | —       | —       | —       |
| LO 5 - 1900                  | MHz   | —       | —       | —       |
| IF 5 - 1000                  | MHz   | —       | —       | —       |
| Conversion Loss              |       |         |         |         |
| 10 - 950                     | dB    | —       | 7.2     | 8.0     |
| 5 - 1900                     | dB    | —       | 7.4     | 9.8     |
| Isolation (LO - RF)          |       |         |         |         |
| 5 - 50                       | MHz   | 45      | 50      | —       |
| 50 - 950                     | MHz   | 25      | 37      | —       |
| 950 - 1900                   | MHz   | 25      | 30      | —       |
| Isolation (LO - IF)          |       |         |         |         |
| 5 - 50                       | MHz   | 45      | 56      | —       |
| 50 - 950                     | MHz   | 25      | 40      | —       |
| 950 - 1900                   | MHz   | 25      | 29      | —       |
| RF Input for 1dB Compression | dBm   | —       | —       | +1      |

S 1405 B



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Specifications subject to change without notice.

## Absolute Maximum Ratings

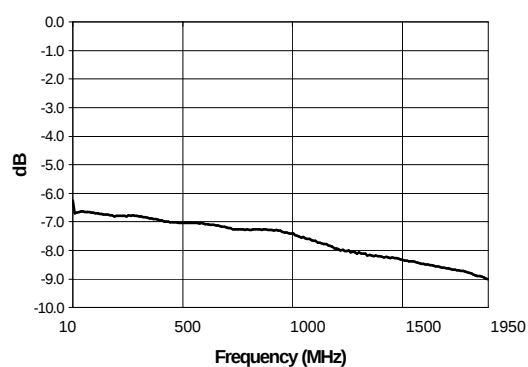
| Parameter                    | Absolute Maximum |
|------------------------------|------------------|
| RF Power                     | 150 mW           |
| Peak IF Current              | 40 mA            |
| Storage Temperature          | -55°C to +100°C  |
| Operating Temperature        | -55°C to +100°C  |
| Pin Temperature (10 Seconds) | 260°C            |

## Functional Configuration

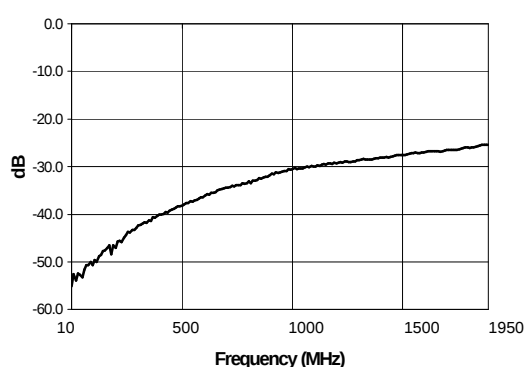
| Function    | Pin No. |
|-------------|---------|
| LO          | 1       |
| RF          | 5       |
| IF          | 4       |
| Ground      | 2, 3, 6 |
| Case Ground | —       |
| Unconnected | —       |

## Typical Performance @ +25°C

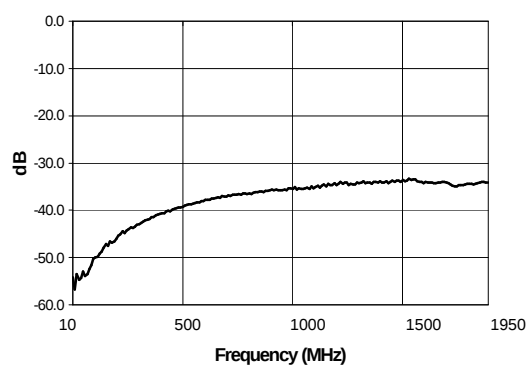
### Conversion Loss



### L-R Isolation



### L-X Isolation



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