

**Low Cost High IP3 Mixer for Cellular Applications**

**CSM1-10**  
V3

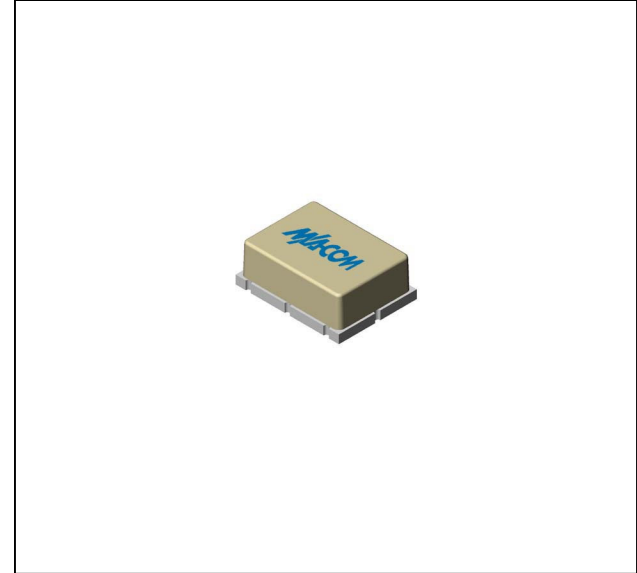
**Features**

- LO & RF 10 TO 1500 MHz
- IF 1 TO 500 MHz
- LO DRIVE +10 dBm (NOMINAL)
- SURFACE MOUNT
- HIGH INTERCEPT +19dBm (TYP.)
- +260°C REFLOW COMPATIBLE

**Description**

The CSM1-10 is a double balanced mixer, designed for use in the high volume wireless applications. The design utilizes Schottky ring quad diodes and broadband baluns to attain excellent performance.

**Product Image**



**Ordering Information**

| Part Number | Package       |
|-------------|---------------|
| CSM1-10     | Surface Mount |

www.DataSheet4U.com

**Electrical Specifications:  $Z_0 = 50\Omega$   $L_o = +10$  dBm (Downconverter application only)**

| Parameter                | Test Conditions  | Units    | Typical                        | Guaranteed |               |
|--------------------------|--|----------|--------------------------------|------------|---------------|
|                          |  |          |                                | +25°C      | -40° to +85°C |
| SSB Conversion Loss(max) | fR = 10 to 1000 MHz, fL = 10 to 1000 MHz, fl = 1 to 500 MHz<br>fR = 1000 to 1500 MHz, fL = 1000 to 1500 MHz, fl = 1 to 500 MHz | dB<br>dB | 6.5                            | 7.0        | 7.5           |
|                          |  |          | 7.5                            | 8.0        | 8.5           |
| SSB Noise Figure         |  | dB       | Within 1 dB of conversion loss |            |               |
| L - R Isolation (min)    | fL = 10 to 1500 MHz  | dB       | 40                             | 35         | 33            |
| L - I Isolation (min)    | fL = 10 to 1500 MHz  | dB       | 30                             | 25         | 23            |
| R - I Isolation (min)    | fR = 10 to 1500 MHz  | dB       | 27                             |            |               |
| 1 dB Conversion Comp     | fL = +10 dBm   | dBm      | +6                             |            |               |
| Input IP3                | fL = 10 to 1500 MHz, fl = 1 to 500 MHz, fR = 10 to 1500 MHz  | dBm      | +19                            |            |               |
| R-Port VSWR              | fR = 10 to 1500 MHz  |          | 1.50:1                         |            |               |
| L-Port VSWR              | fL = 10 to 1500 MHz  |          | 1.75:1                         |            |               |
| I-Port VSWR              | fl = 10 to 500 MHz   |          | 1.50:1                         |            |               |

1

M/A-COM Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. M/A-COM makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does M/A-COM assume any liability whatsoever arising out of the use or application of any product(s) or information.

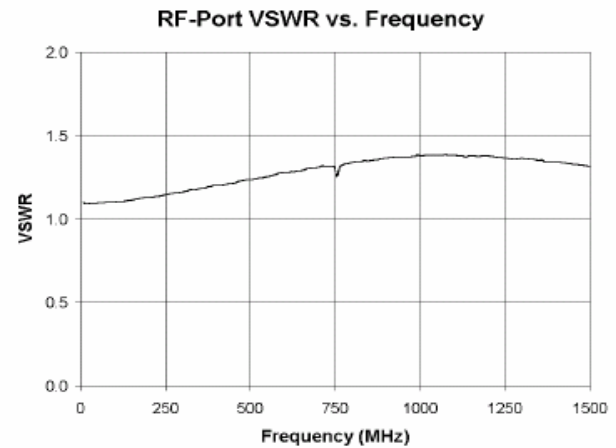
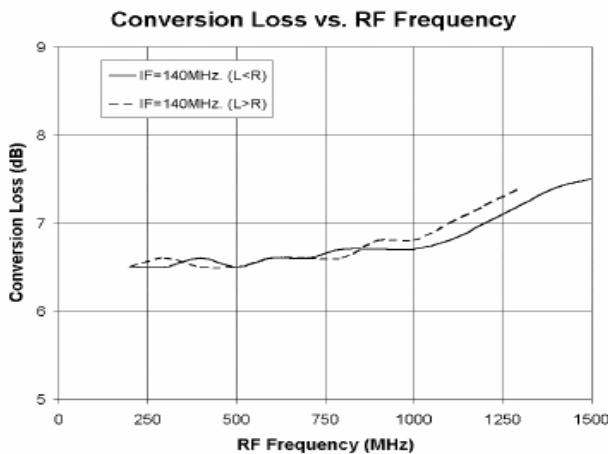
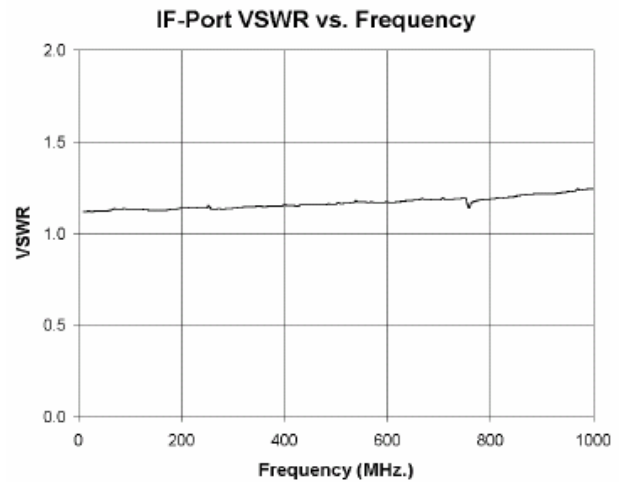
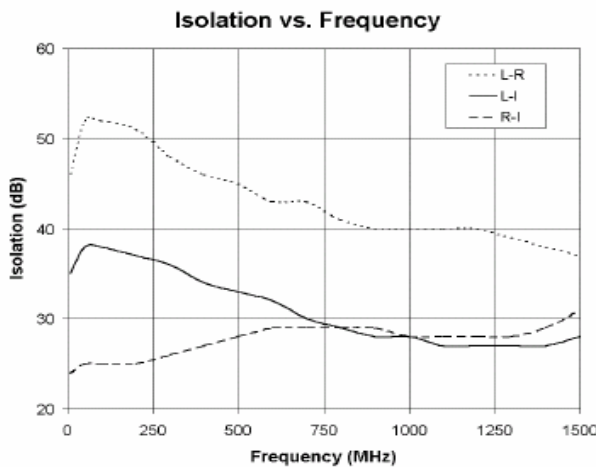
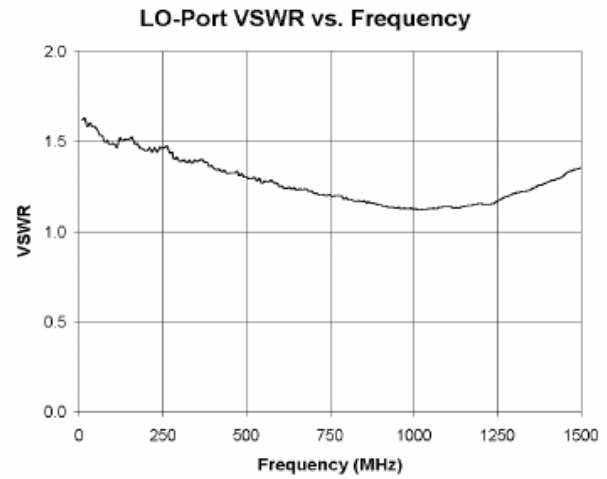
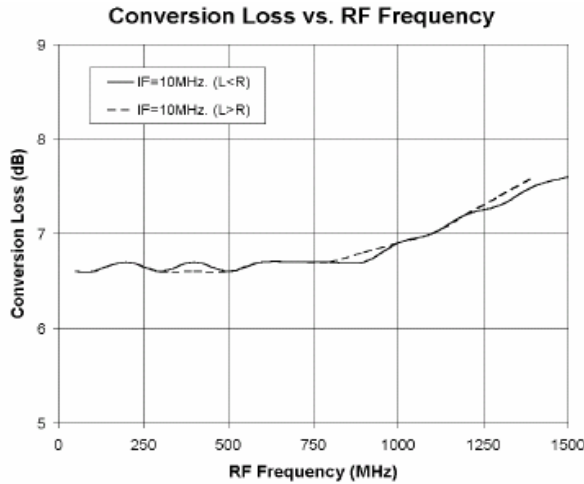
- **North America** Tel: 800.366.2266 / Fax: 978.366.2266
- **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- **Asia/Pacific** Tel: 81.44.844.8296 / Fax: 81.44.844.8298

Visit [www.macom.com](http://www.macom.com) for additional data sheets and product information.

**Low Cost High IP3 Mixer for Cellular Applications**

**CSM1-10**  
V3

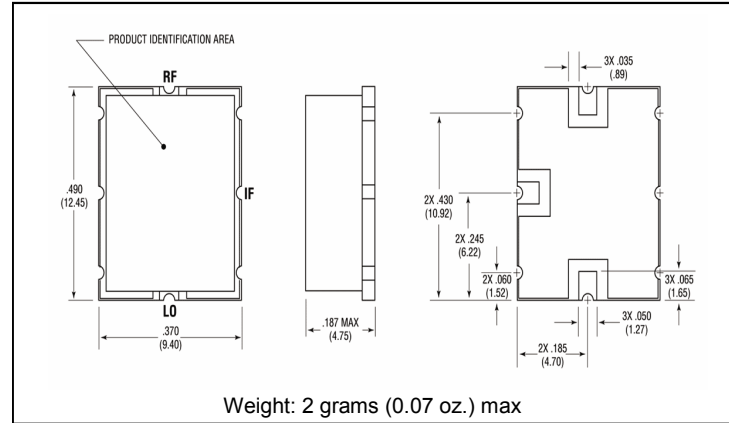
**Typical Performance Curves**



**Low Cost High IP3 Mixer for  
Cellular Applications**

**CSM1-10**  
V3

**Outline Drawing: Surface Mount \***



\* Dimensions are inches (millimeters)  $\pm 0.015$  (0.38) unless otherwise specified.

**Absolute Maximum Ratings**

| Parameter             | Absolute Maximum                           |
|-----------------------|--|
| Operating Temperature | -54°C to +85°C                             |
| Storage Temperature   | -65°C to +100°C                            |
| Peak Input Power      | +20 dBm max @ -25°C<br>+17 dBm max @ +85°C |
| Peak Input Current    | 50 mA DC                                   |