

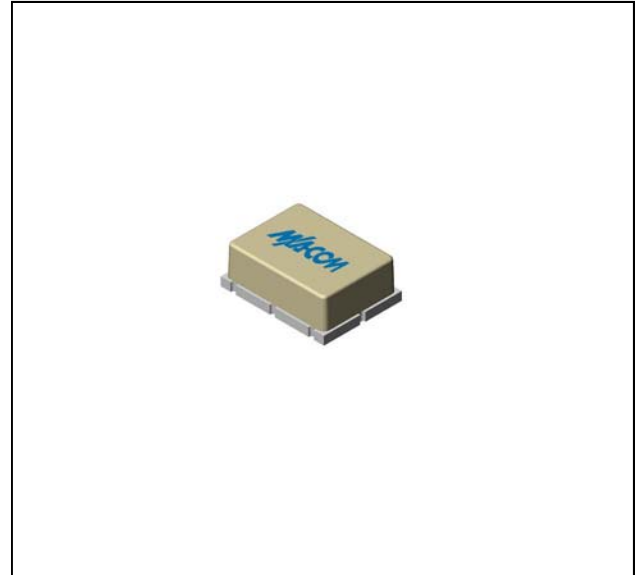
Features

- LO 1 TO 3400 MHz
- RF 1 TO 3400 MHz
- IF 1 TO 2000 MHz
- LO DRIVE +23 dBm (NOMINAL)
- HIGH INTERCEPT +29 dBm (TYP.)

Description

The CSM4TH is a termination insensitive mixer, designed for use in military, wireless, and test equipment applications. The design utilizes Schottky bridge quad diodes, broadband ferrite baluns and internal loads to provide excellent performance without degradation due to external VSWR mismatches. The use of high temperature solder and welded assembly processes used internally makes it ideal for use in semi-automated and automated assembly. Environmental screening available to MIL-STD-883, MIL-STD-202, or MIL-DTL-28837, consult factory.

Product Image



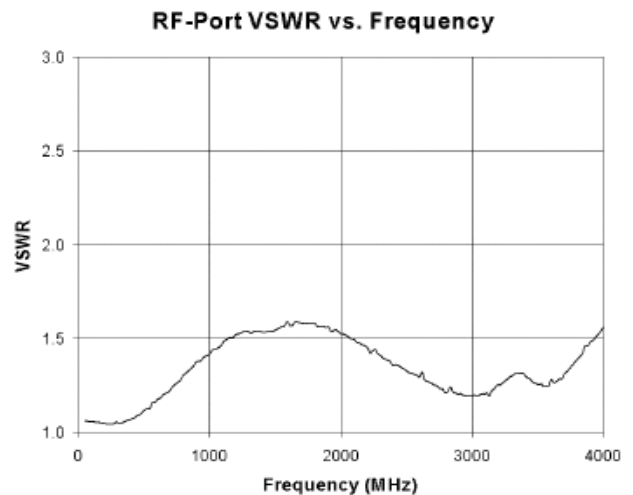
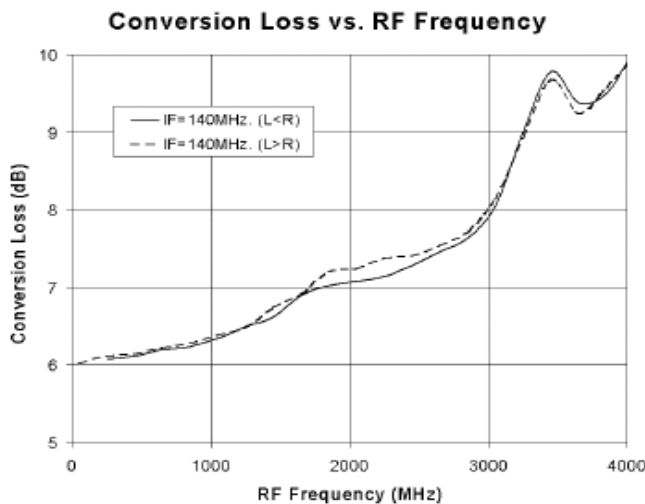
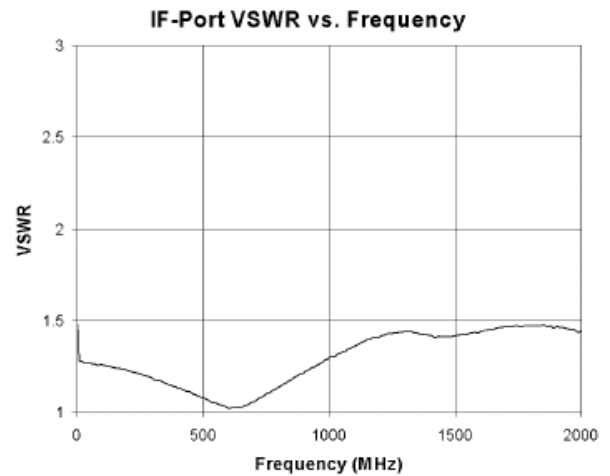
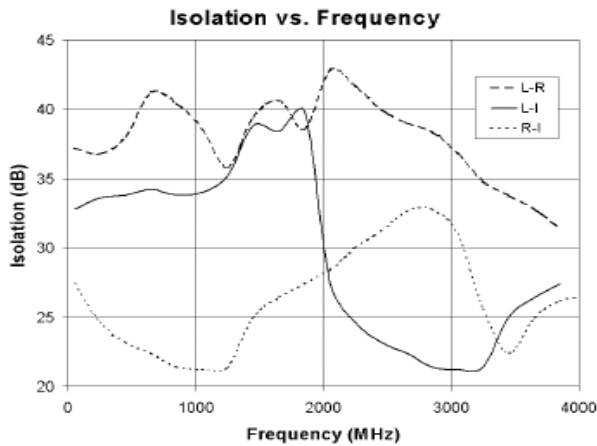
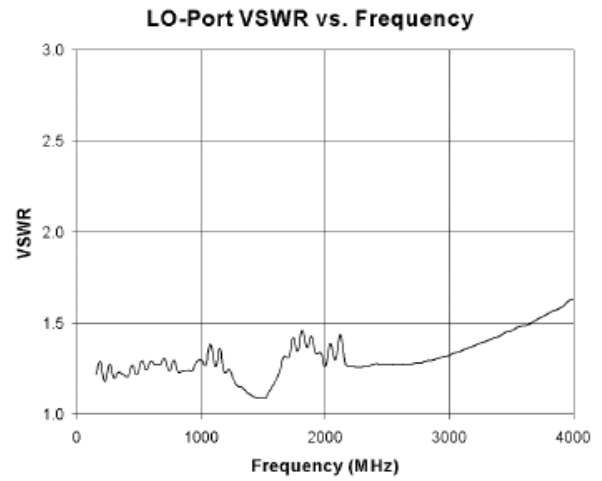
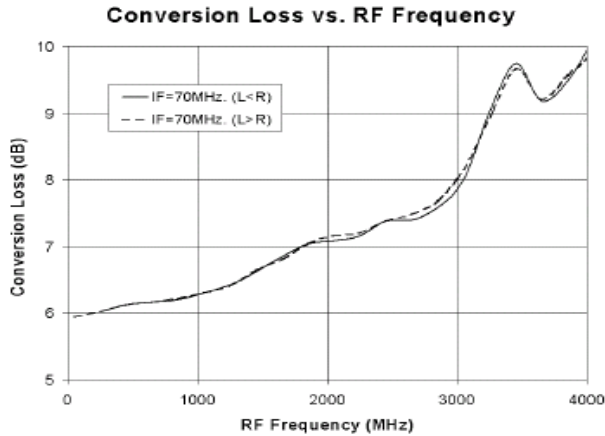
Ordering Information

| Part Number | Package |
|-------------|---------------|
| CSM4TH | Surface Mount |

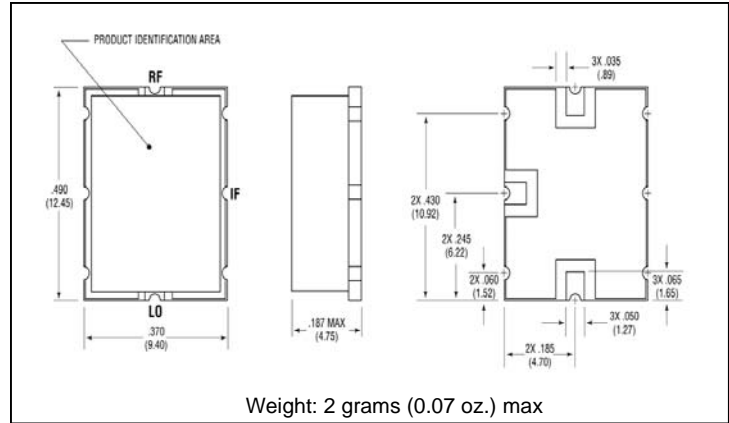
Electrical Specifications: $Z_0 = 50\Omega$ $Lo = +23$ dBm (Downconverter application only)

| Parameter | Test Conditions | Units | Typical | Guaranteed | |
|--|--|-------|---------|------------|---------------|
| | | | | +25°C | -40° to +85°C |
| SSB Conversion Loss (max) & SSB Noise Figure (max) | fR = 1 to 2400 MHz, fL = 1 to 2400 MHz, fI = 1 to 2000 MHz fR = 1 to 3400 MHz, fL = 1 to 3400 MHz, fI = 1 to 2000 MHz | dB | 8.0 | 9.5 | 10.0 |
| | | | 9.0 | 10.5 | 11.0 |
| L - R Isolation (min) | fL = 1 to 2400 MHz fL = 2400 to 3400 MHz | dB | 35 | 26 | 24 |
| | | | 25 | 20 | 18 |
| L - I Isolation (min) | fL = 1 to 2400 MHz fL = 2400 to 3400 MHz | dB | 38 | 27 | 25 |
| | | | 25 | 20 | 18 |
| R - I Isolation (min) | fR = 1 to 3400 MHz | dB | 25 | | |
| 1 dB Conversion Comp. | fL = +23 dBm | dBm | +19 | | |
| Input IP3 | fL = 100 to 3400 MHz, fI = 50 to 2000 MHz, fR = 100 to 3400 MHz | dBm | +28 | | |
| R-Port VSWR | fR = 1 to 3400 MHz | | 2.0:1 | | |
| L-Port VSWR | fL = 1 to 3400 MHz | | 2.0:1 | | |
| I-Port VSWR | fI = 1 to 2000 MHz | | 2.0:1 | | |

Typical Performance Curves



Outline Drawing: Surface Mount *



* Dimensions are inches (millimeters) ± 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 | +26 dBm max @ +25°C +23 dBm max @ +85°C |
| Peak Input Current | 50 mA DC |