

Wide Band Termination Insensitive Mixer

Rev. V2

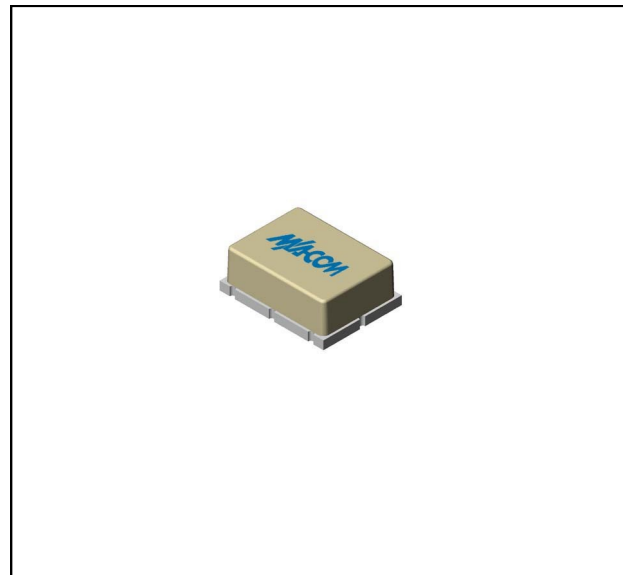
Features

- LO & RF 50 TO 4800 MHz
- IF 50 TO 3000 MHz
- LO DRIVE +23 dBm (NOMINAL)
- SURFACE MOUNT
- HIGH INTERCEPT +28 dBm (TYP.)

Description

The CSM5TH 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 |
|-------------|---------------|
| CSM5TH | Surface Mount |

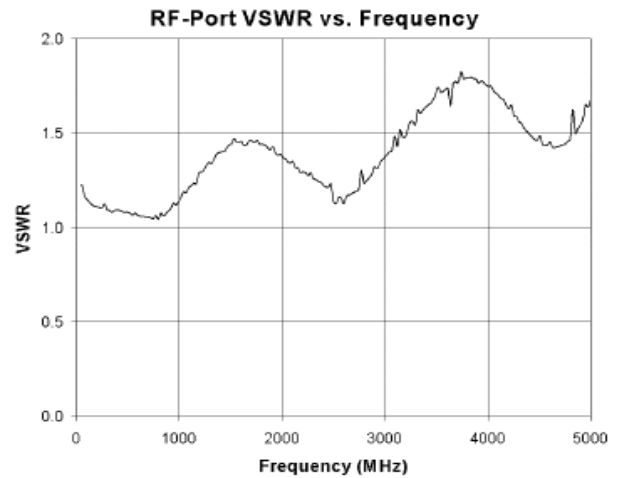
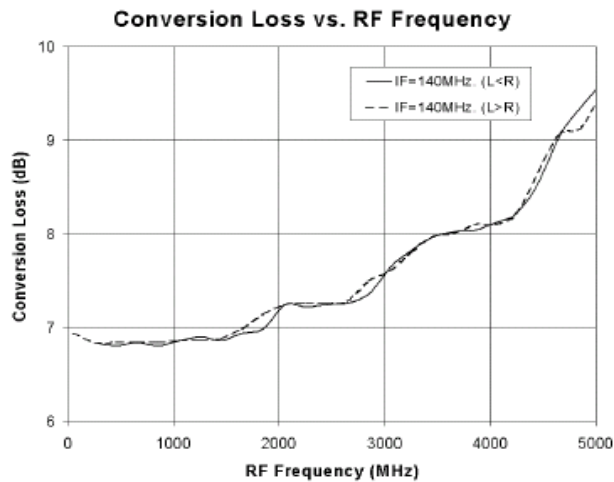
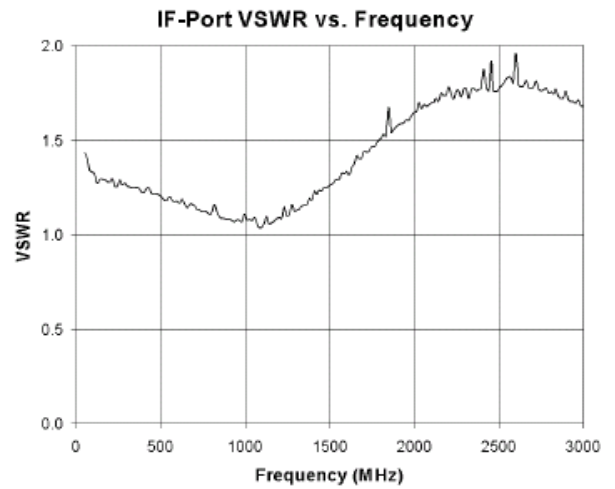
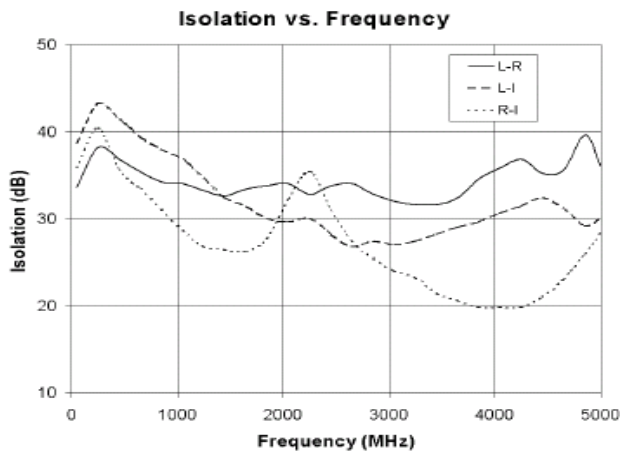
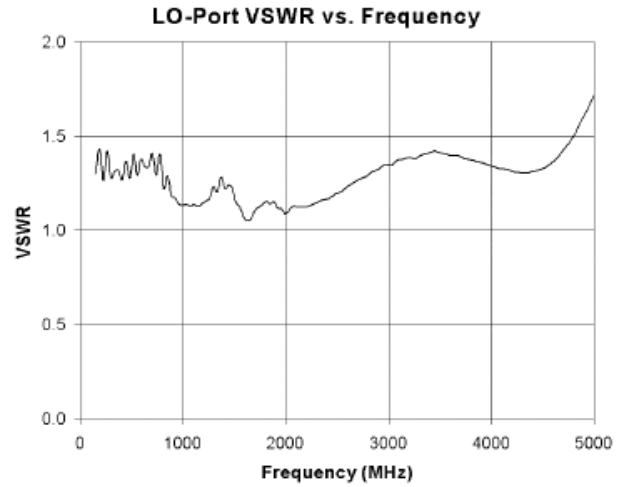
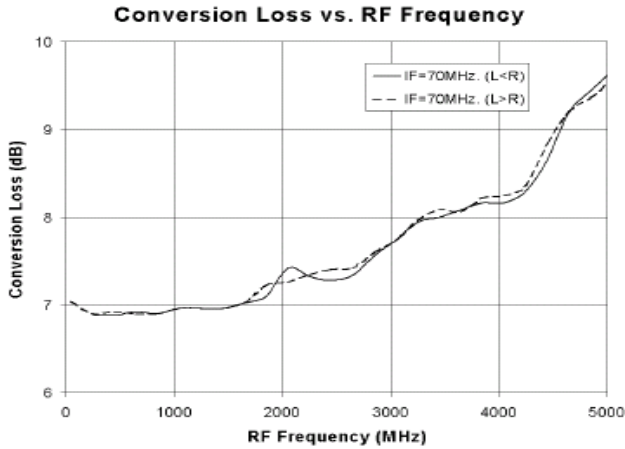
Electrical Specifications: $Z_0 = 50\Omega$ $Lo = +23$ dBm (Downconverter application only)

| Parameter | Test Conditions | Units | Typical | Guaranteed | |
|--|---|-------|---------|------------|---------------|
| | | | | +25°C | -40° to +85°C |
| SSB Conversion Loss (max) & SSB Noise Figure (max) | fR = 50 to 1500 MHz, fL = 50 to 1500 MHz, fl = 50 to 1500 MHz | dB | 7.0 | 8.3 | 8.8 |
| | fR = 1500 to 3000 MHz, fL = 1500 to 3000 MHz, fl = 50 to 3000 MHz | dB | 7.8 | 9.2 | 9.7 |
| | fR = 3000 to 4800 MHz, fL = 3000 to 4800 MHz, fl = 50 to 3000 MHz | dB | 8.8 | 11.5 | 12.0 |
| L - R Isolation (min) | fL = 50 to 1000 MHz | dB | 35 | 25 | 23 |
| | fL = 1000 to 4800 MHz | dB | 32 | 23 | 21 |
| L - I Isolation (min) | fL = 50 to 1000 MHz | dB | 40 | 30 | 28 |
| | fL = 1000 to 4800 MHz | dB | 35 | 22 | 20 |
| R - I Isolation (min) | fR = 50 to 2000 MHz | dB | 30 | | |
| | fR = 2000 to 4800 MHz | dB | 22 | | |
| 1 dB Conversion Comp. | fL = +23 dBm | dBm | +17 | | |
| Input IP3 | fL = 500 to 4800 MHz, fl = 50 to 2500 MHz, fR = 500 to 4800 MHz | dBm | +28 | | |
| R-Port VSWR | fR = 50 to 4800 MHz | | 2.0:1 | | |
| L-Port VSWR | fL = 50 to 4800 MHz | | 2.0:1 | | |
| I-Port VSWR | fl = 50 to 3000 MHz | | 2.0:1 | | |

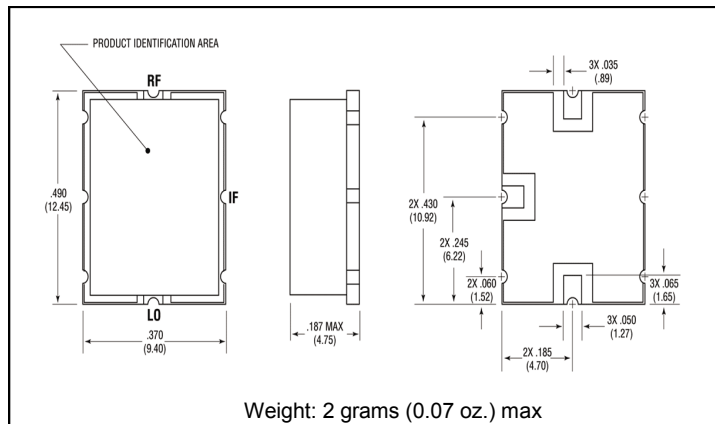
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Typical Performance Curves



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 | +27 dBm max @ -25°C +23 dBm max @ +85°C |
| Peak Input Current | 50 mA DC |

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- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.