

**Wide Band Termination Insensitive Mixer**

**CSM5T17**

V2

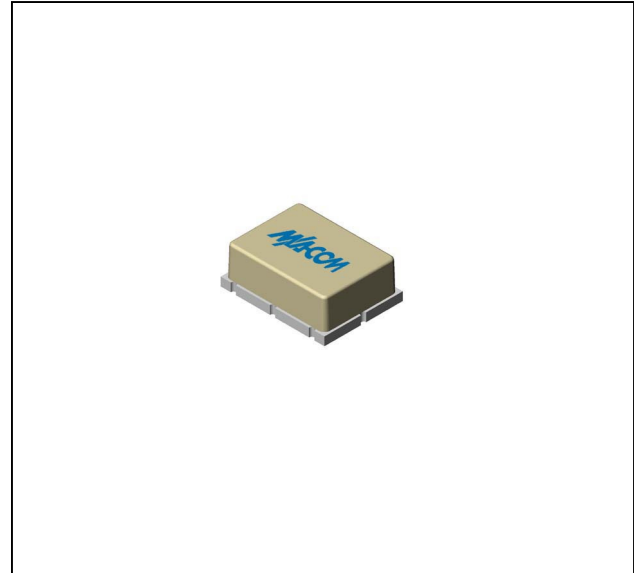
**Features**

- LO 50 TO 4800 MHz
- RF 50 TO 4800 MHz
- IF 50 TO 3000 MHz
- LO DRIVE +17 dBm (NOMINAL)
- HIGH INTERCEPT +23 dBm (TYP.)

**Description**

The CSM5T17 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
CSM5T17	Surface Mount

**Electrical Specifications:  $Z_0 = 50\Omega$   $Lo = +17$  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 = 0.05 to 3.4 GHz, fL = 0.05 to 3.4 GHz, fI = 0.05 to 3.0 GHz fR = 3.4 to 4.8 GHz, fL = 3.4 to 4.8 GHz, fI = 0.05 to 3.0 GHz	dB	7.8	8.5	11.5
			10.0	11.5	12.5
L - R Isolation (min)	fL = 0.05 to 4.8 GHz	dB	33	23	21
L - I Isolation (min)	fL = 0.05 to 4.8 GHz	dB	37	22	20
R - I Isolation (min)	fR = 0.05 to 2.0 GHz fR = 2.0 to 4.8 GHz	dB	30		
		dB	22		
1 dB Conversion Comp.	fL = +17 dBm	dBm	+14		
Input IP3	fL = 0.5 to 4.8 GHz, fI = 0.05 to 3.0 GHz, fR = 0.5 to 4.8 GHz	dBm	+23		
R-Port VSWR	fR = 0.05 to 4.8 GHz		2.0:1		
L-Port VSWR	fL = 0.05 to 4.8 GHz		2.0:1		
I-Port VSWR	fI = 0.05 to 3.0 GHz		2.0:1		

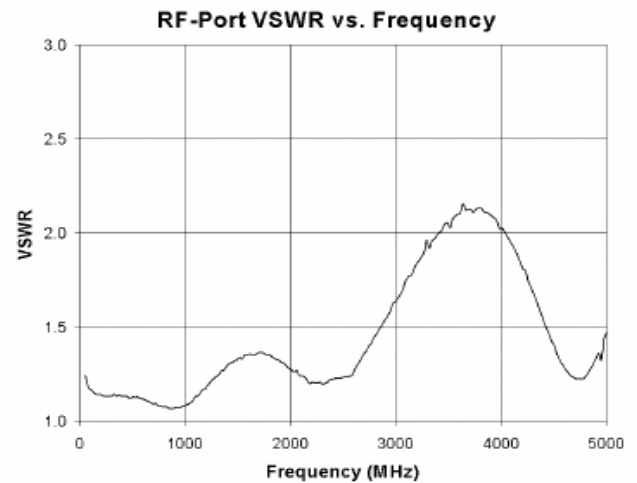
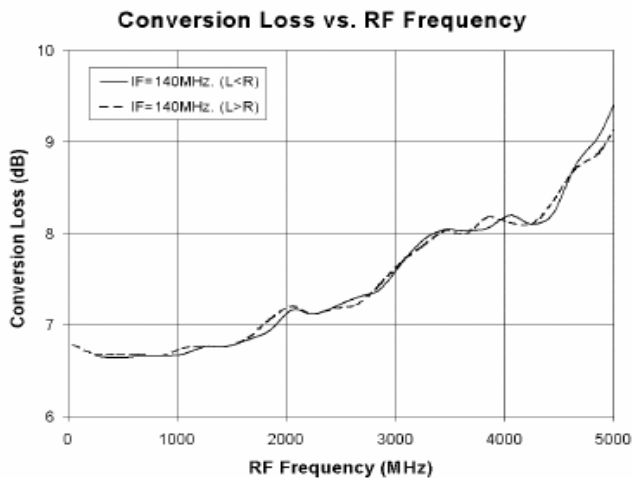
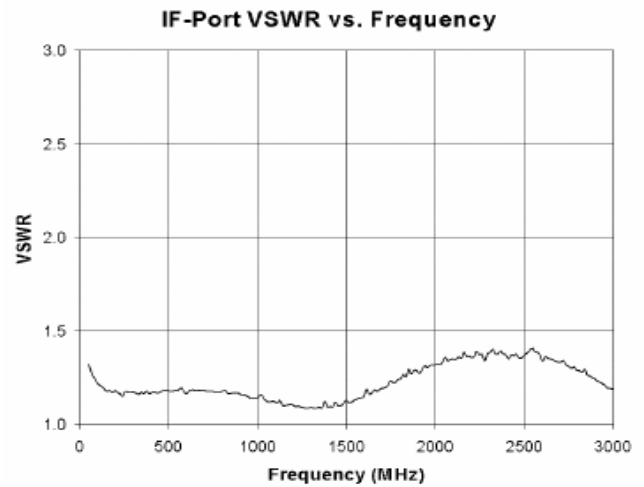
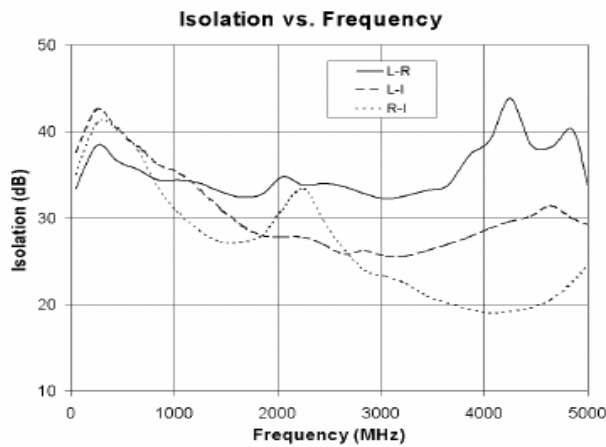
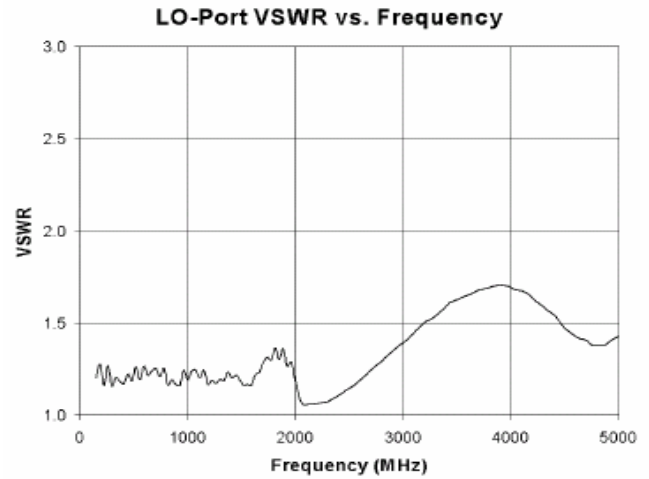
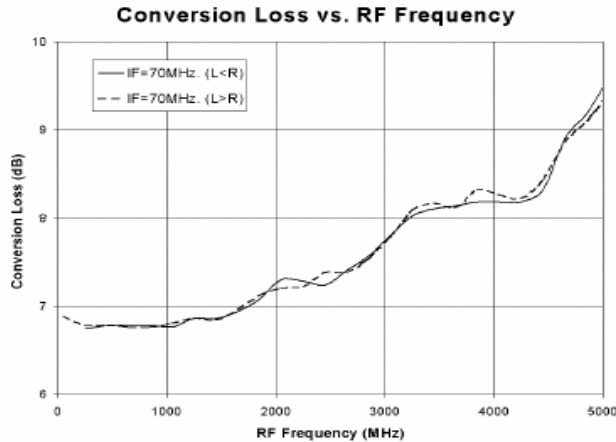
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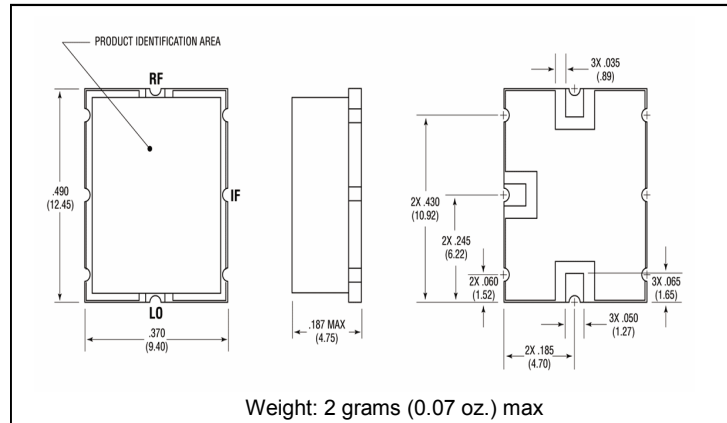
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- **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- **Asia/Pacific** Tel: 81.44.844.8296 / Fax: 81.44.844.8298

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

Typical Performance Curves



**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 +17 dBm max @ +85°C
Peak Input Current	50 mA DC