CSM5T

Wide Band Termination Insensitive Mixer

Rev. V2

Features

- LO 50 TO 4800 MHz
- RF 50 TO 4800 MHz
- IF 50 TO 3000 MHz
- LO DRIVE +10 dBm (NOMINAL)
- HIGH INTERCEPT +18 dBm (TYP.)

Description

The CSM5T 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
CSM5T	Surface Mount

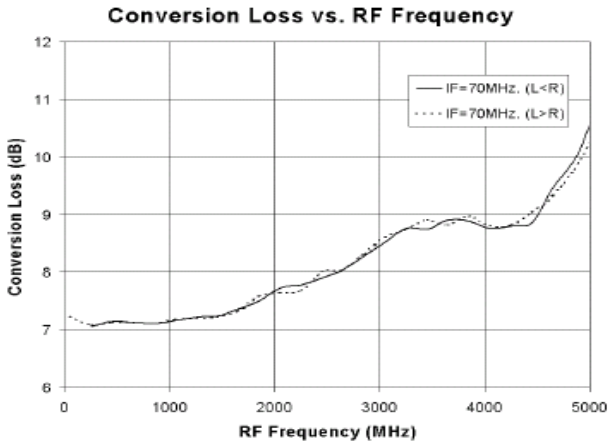
Electrical Specifications: $Z_0 = 50\Omega$ Lo = +10 dBm (Downconverter application only)

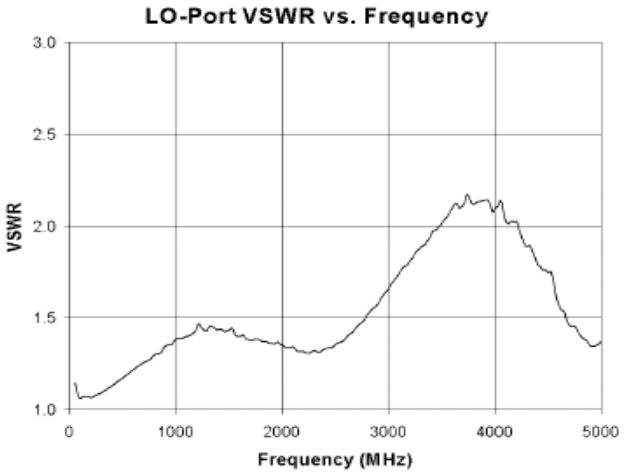
Parameter	Test Conditions	Units	Typical	Guaranteed	
				+25ºC	-40º to +85ºC
SSB Conversion Loss (max) & SSB Noise Figure (max)	fR = 0.05 to 1.5 GHz, fL = 0.05 to 1.5 GHz, fI = 0.05 to 1.5 GHz fR = 1.5 to 3.0 GHz, fL = 1.5 to 3.0 GHz, fI = 0.05 to 3.0 GHz fR = 3.0 to 4.8 GHz, fL = 3.0 to 4.8 GHz, fI = 0.05 to 3.0 GHz	dB dB dB	7.2 8.0 8.8	8.5 9.3 11.5	9.0 9.8 12.0
L - R Isolation (min)	fL = 0.05 to 1.0 GHz fL = 1.0 to 4.8 GHz	dB dB	35 32	25 23	23 21
L - I Isolation (min)	fL = 0.05 to 1.0 GHz fL = 1.0 to 4.8 GHz	dB dB	40 35	32 22	30 20
R - I Isolation (min)	fR = 0.05 to 2.0 GHz fR = 2.0 to 4.8 GHz	dB dB	30 20		
1 dB Conversion Comp.	fL= +10 dBm	dBm	+7		
Input IP3	fL = 0.5 to 4.8 GHz, fI = 0.05 to 2.5 GHz, fR = 0.5 to 4.8 GHz	dBm	+18		
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		

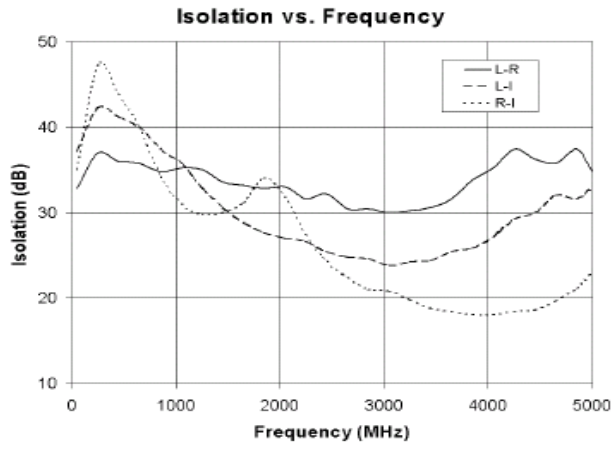
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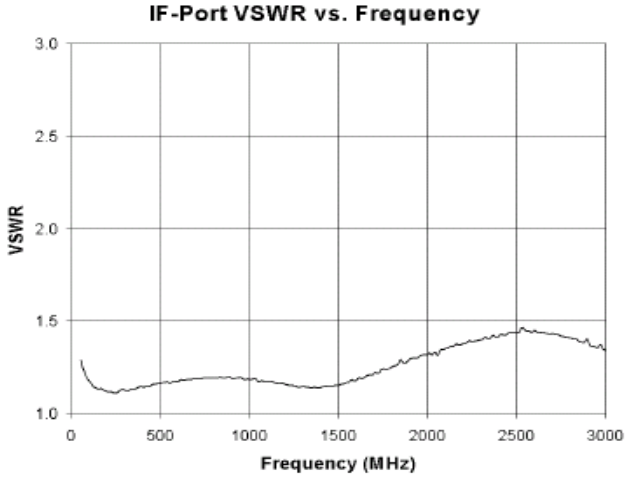
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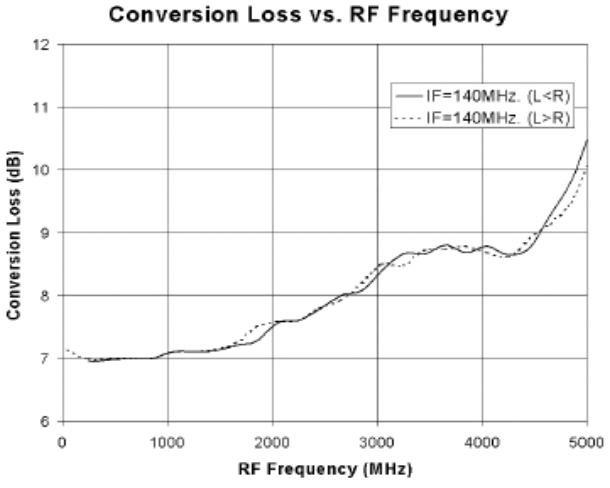
Typical Performance Curves

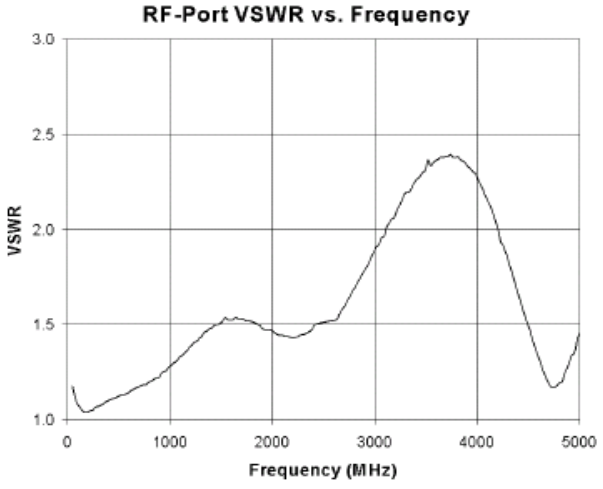








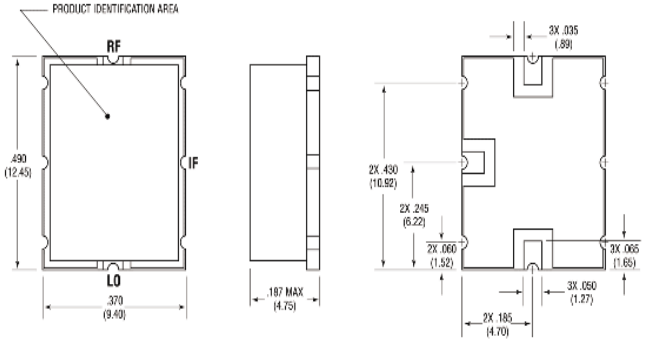




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Outline Drawing: Surface Mount *



Weight: 2 grams (0.07 oz.) max

* Dimensions are inches (millimeters) ±0.015 (0.38) unless otherwise specified.

Absolute Maximum Ratings

Parameter	Absolute Maximum
Operating Temperature	-54ºC to +85ºC
Storage Temperature	-65ºC to +100ºC
Peak Input Power	+20 dBm max @ +25ºC +17 dBm max @ +85ºC
Peak Input Current	50 mA DC

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