

Termination Insensitive Mixer

Rev. V5

Features

- LO 1 TO 3400 MHz
- RF 1 TO 3400 MHz
- IF 1 TO 2000 MHz
- LO DRIVE +10 dBm (NOMINAL)
- HIGH INTERCEPT +18 dBm (TYP.)
- +260°C REFLOW COMPATIBLE

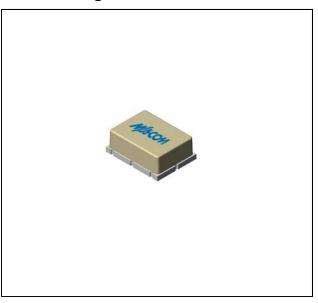
Description

The CSM4T 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.



Part Number	Package
CSM4T	Surface Mount

Product Image



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

	T 0	Units	Typical	Guaranteed	
Parameter	Test Conditions			+25°C	-40° to +85°C
SSB Conversion Loss(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 dB	8.0 9.0	9.0 10.0	10.5 11.5
SSB Noise Figure		dB	Within 1 dB of conversion loss		
L - R Isolation (min)	fL = 1 to 2400 MHz fL = 2400 to 3400 MHz	dB	35 25	25 20	24 18
L - I Isolation (min)	fL = 1 to 2400 MHz fL = 2400 to 3400 MHz	dB	35 25	25 20	23 18
R - I Isolation (min)	fR = 1 to 3400 MHz	dB	25		
1 dB Conversion Comp.	fL= +10 dBm	dBm	+7		
Input IP3	fL = 100 to 3400 MHz, fI = 50 to 2000 MHz, fR = 100 to 3400 MHz	dBm	+18		
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	fl = 1 to 2000 MHz		2.0:1		

Commitment to produce in volume is not guaranteed.

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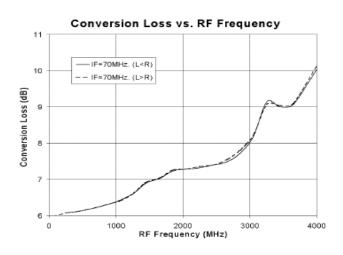
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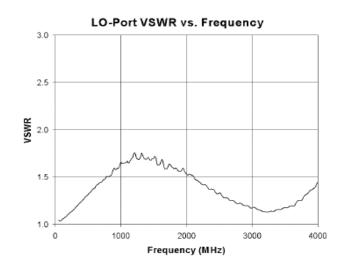


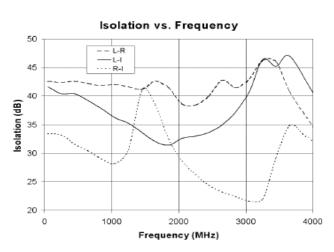
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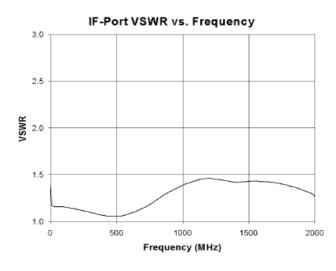
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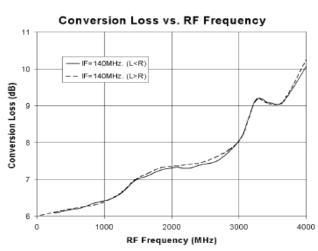
Typical Performance Curves

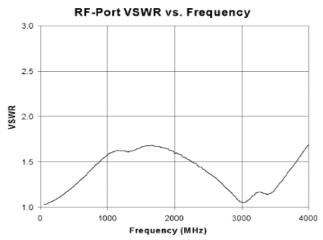












ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

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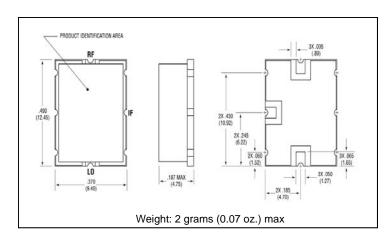
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Outline Drawing: Surface Mount *



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	+13 dBm max @ +25°C +10 dBm max @ +85°C		
Peak Input Current	50 mA DC		

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