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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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#### **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

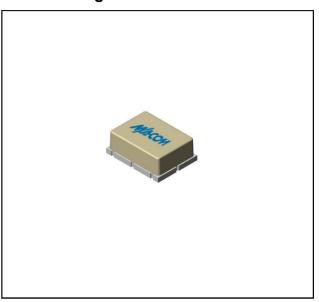
#### **Description**

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)

Parameter	Test Conditions	Units	Typical	Gua	Guaranteed	
Parameter	rest Conditions			+25°C	-40° to +85°C	
SSB Conversion Loss(max)	fR = 1 to 2400 MHz, fL = 1 to 2400 MHz, fl = 1 to 2000 MHz fR = 1 to 3400 MHz , fL = 1 to 3400 MHz , fl = 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	_		

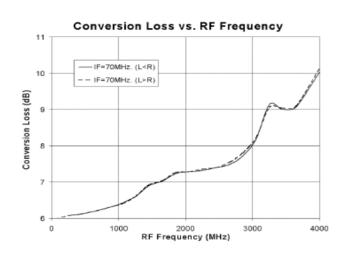
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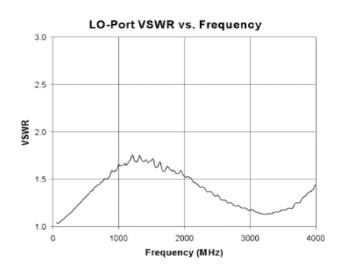


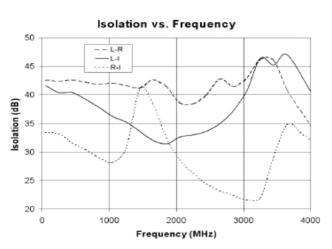
### **Termination Insensitive Mixer**

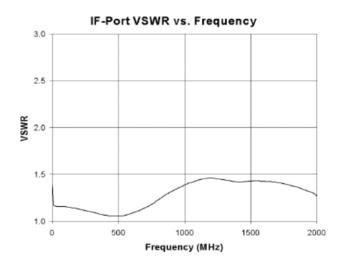
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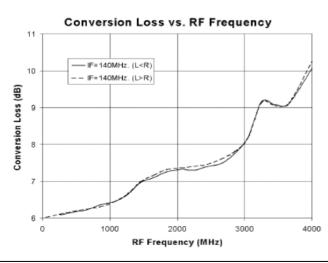
#### **Typical Performance Curves**

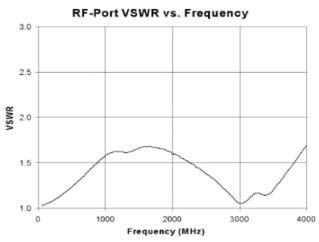










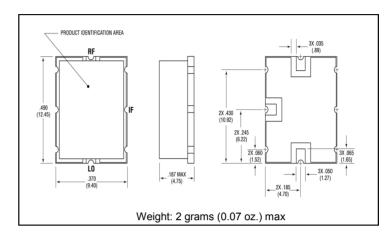




### **Termination Insensitive Mixer**

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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		

# CSM4T



#### **Termination Insensitive Mixer**

Rev. V5

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