

Low Cost High IP3 Mixer for **PCS/WLL Applications**

Rev. V3

Features

- LO & RF 10 TO 2800 MHz
- IF 10 TO 2000 MHz
- LO DRIVE +13 dBm (NOMINAL)
- SURFACE MOUNT
- HIGH INTERCEPT +22 dBm (TYP.)
- +260°C REFLOW COMPATIBLE

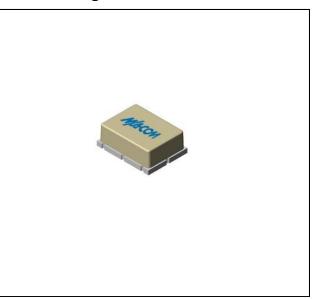
Description

The CSM2-13 is a double balanced mixer, designed for use in the high volume wireless applications. The design utilizes Schottky ring quad diodes and broadband baluns to attain excellent performance.

Ordering Information

Part Number	Package
CSM2-13	Surface Mount

Product Image



Electrical Specifications: $Z_0 = 50\Omega$ Lo = +13 dBm (Downconverter application only)

Davamatas	Tot Conditions		Typical	Guaranteed	
Parameter Test Conditions		Units		+25°C	-40° to +85°C
SSB Conversion Loss(max)	fR = 10 to 1200 MHz, fL = 10 to 1200 MHz, fI = 10 to 1000 MHz fR = 1200 to 2800 MHz, fL = 1200 to 2800 MHz, fi = 10 to 2000 MHz	dB dB	7.5 9.0	8.0 10.0	8.5 10.5
SSB Noise Figure		dB	Within 1 dB of conversion loss		
L - R Isolation (min)	fL = 10 to 1200 MHz fL = 1200 to 2800 MHz	dB dB	35 30	32 28	30 26
L - I Isolation (min)	fL = 10 to 2800 MHz	dB	25	23	21
R - I Isolation (min)	fR = 10 to 2800 MHz	dB	21		
1 dB Conversion Comp.	fL = +13 dBm	dBm	+10		
Input IP3	$\label{eq:fl} \begin{array}{l} {\rm fL} = 10 \ {\rm to} \ 2000 \ {\rm MHz}, \ {\rm fl} = 10 \ {\rm to} \ 1000 \ {\rm MHz}, \ {\rm fR} = 10 \ {\rm to} \ 2000 \ {\rm MHz} \\ {\rm fL} = 2000 \ {\rm to} \ 2800 \ {\rm MHz}, \ {\rm fl} = 10 \ {\rm to} \ 2000 \ {\rm MHz}, \ {\rm fR} = 2000 \ {\rm to} \ 2800 \ {\rm MHz} \\ \end{array}$	dBm dBm	+22 +20		
R-Port VSWR	fR = 10 to 2800 MHz		1.7:1		
L-Port VSWR	fL =10 to 2000 MHz fL = 2000 to 2800 MHz		2.0:1 2.5:1		
I-Port VSWR	fl = 10 to 2000 MHz		1.8:1		

Commitment to produce in volume is not guaranteed.

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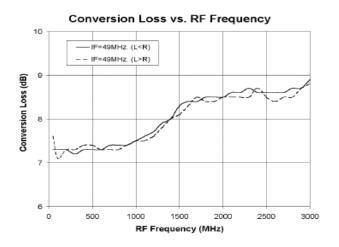
[•] India Tel: +91.80.4155721 • China Tel: +86.21.2407.1588 Visit www.macomtech.com for additional data sheets and product information.

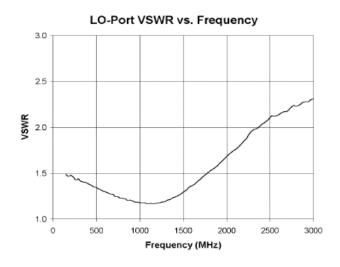


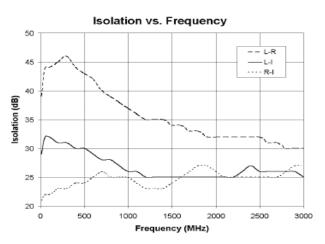
Low Cost High IP3 Mixer for PCS/WLL Applications

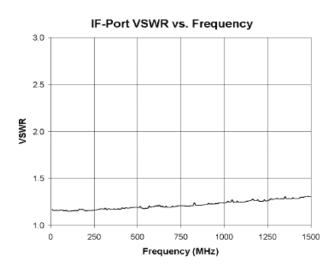
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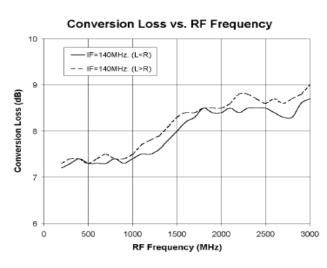
Typical Performance Curves

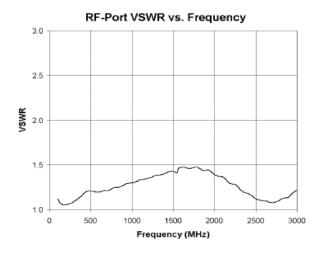












ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

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Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available.

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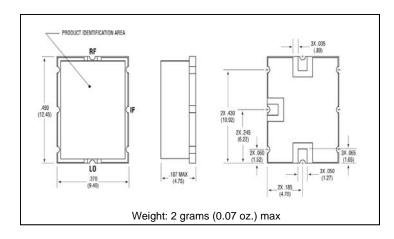
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Outline Drawing: Surface Mount *



* 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	+20 dBm max @ -25°C +17 dBm max @ +85°C		
Peak Input Current	50 mA DC		

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