MY84 / MY84C



Double-Balanced Mixer

Rev. V3

Features

- LO 1.8 to 10 GHz
- RF 1.8 to 10 GHz
- IF DC to 1000 MHz
- LO Drive +9 dBm (nominal)
- Low Noise Figure

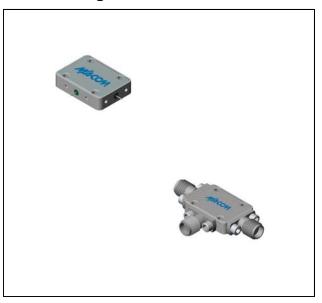
Description

The MY84 is a double balanced mixer, designed for use in military, commercial and test equipment applications. The design utilizes Schottky ring quad diodes and broadband soft dielectric baluns to attain excellent performance. This mixer can also be used as a phase detector and/or bi-phase modulator since the IF port is DC coupled to the diodes. The use of high temperature solder and welded assembly processes used internally makes it ideal for use in manual, semi-automated assembly. Environmental screening available to MIL-STD-883, MIL-STD-202, or MIL-DTL-28837, consult factory.

Ordering Information

Part Number	Package			
MY84	Versapac			
MY84C	SMA Connectorized			

Product Image



Electrical Specifications: $Z_0 = 50\Omega$ Lo = +9 dBm (Downconverter application only)

Parameter	Test Conditions		Typical	Guaranteed	
raiametei				+25°C	-54º to +85ºC
SSB Conversion Loss (max)	fR = 1.8 to 5.5 GHz, fL = 1.8 to 6 GHz, fI = 0.03 to 0.5 GHz fR = 5.5 to 10 GHz, fL = 5 to 10 GHz, fI = 0.03 to 1 GHz	dB	6.0 6.5	7.5 8.5	8.0 9.0
SSB Noise Figure (max)	max) Within 1 dB of conversion loss				
Isolation, L to R (min)	fL = 1.8 to 6 GHz fL = 6 to 10 GHz	dB	45 32	30 20	28 18
Isolation, L to I (min)	fL = 1.8 to 10 GHz	dB	30	18	16
1 dB Conversion Comp. fL = +9 dBm		dBm	+4		
Input IP3	fR1 = 5 GHz at -10 dBm, fR2 = 5.01 GHz at -10 dBm, fL = 5.5 GHz at +9 dBm	dBm	+11		

Commitment to produce in volume is not guaranteed.

[•] India Tel: +91.80.4155721

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

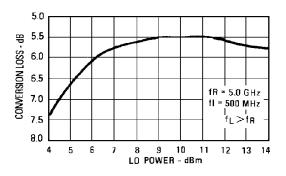


Double-Balanced Mixer

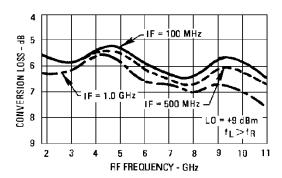
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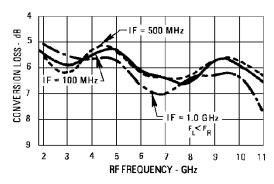
Typical Performance Curves

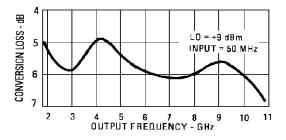
Conversion Loss vs. LO Drive Power



Conversion Loss

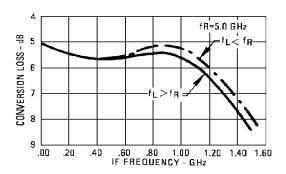




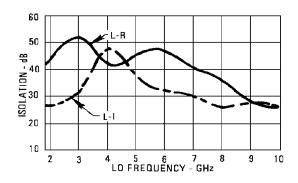


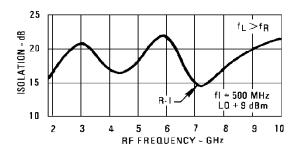
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Conversion Loss



Isolation





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