MY50 / MY50C



Triple-Balanced Mixer

Rev. V2

Features

- LO 2.0 to 26 GHz
- RF 2.0 to 26 GHz
- IF 1.0 to 15 GHz
- LO Drive +10 dBm (nominal)
- **High Compression Point**
- Very Wide Bandwidth

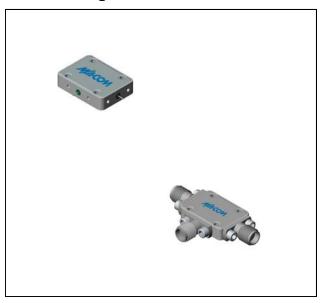
Description

MY50 is a triple 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. The use of high temperature solder 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		
MY50	Versapac		
MY50C	SMA Connectorized		

Product Image



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

Doromotor	Took Conditions	Units	Typical	Guaranteed	
Parameter	Test Conditions			+25°C	-54º to +85ºC
SSB Conversion Loss (max)	fR = 2.5 to 18 GHz, fL = 2 to 18 GHz, fI = 2 to 10 GHz fR = 2 to 18 GHz, fL = 2 to 26 GHz, fI = 2 to 12 GHz fR = 2 to 26 GHz, fL = 2 to 26 GHz, fI = 1 to 15 GHz	dB	7.5 8.0 9.0	9.5 10.5 11.5	10.0 11.0 12.0
SSB Noise Figure (max)	Within 1 db of conversion loss	dB			
Isolation, L to R (min)	fL = 2 to 3 GHz fL = 3 to 26 GHz	dB	30 22	20 15	18 13
Isolation, L to I (min)	fL = 2 to 7 GHz fL = 7 to 26 GHz	dB	30 22	20 15	18 13
1 dB Conversion Comp.	fL = +10 dBm	dBm	+5		
Input IP3	fR1 = 5 GHz at -6 dBm, fR2 = 5.01 GHz at -6 dBm, fL = 8 GHz at +10 dBm fR1 = 25 GHz at -6 dBm, fR2 = 25.01 GHz at -6 dBm, fL = 15 GHz at +10 dBm	dBm	+15 +15		

Commitment to produce in volume is not guaranteed.

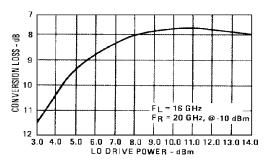


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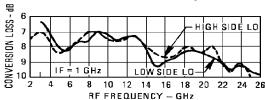
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Typical Performance Curves

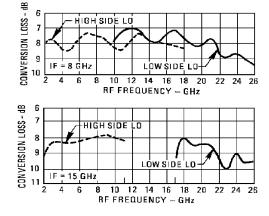
Conversion Loss vs. LO Drive Level



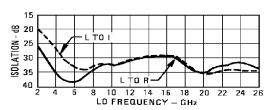
Conversion Loss vs. Frequency

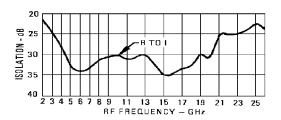


Conversion Loss vs. Frequency

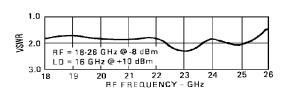


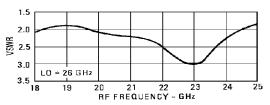
Isolation vs. Frequency



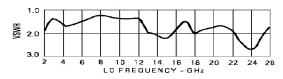


R-Port VSWR





L-Port VSWR



PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology 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. Commitment to produce in volume is not guaranteed.

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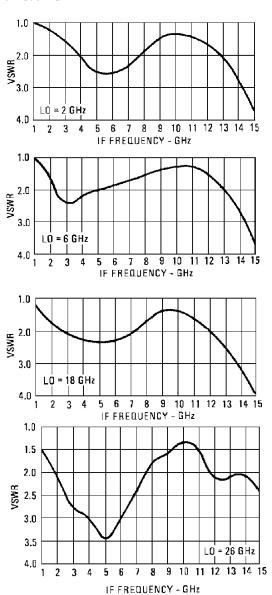
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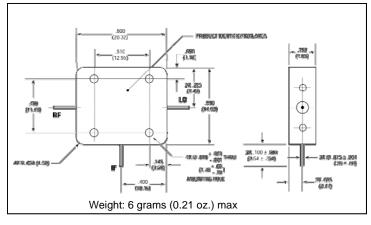
Absolute Maximum Ratings

Parameter	Absolute Maximum		
Operating Temperature	-54°C to +100°C		
Storage Temperature	-65°C to +100°C		
Peak Input Power	+26 dBm max @ +25°C +22 dBm max @ +100°C		
Peak Input Current	100 mA DC		

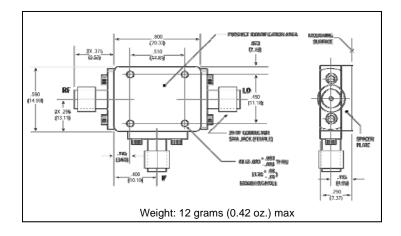
I-Port VSWR



Outline Drawing: Versapac



Outline Drawing: SMA Connectorized



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

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