MY50A / MY50AC



Triple-Balanced Mixer

Rev. V2

Features

- LO 2 TO 26 GHz
- RF 2 TO 18 GHz
- IF 1 TO 12 GHz
- LO DRIVE +10 dBm (nominal)
- HIGH COMPRESSION POINT

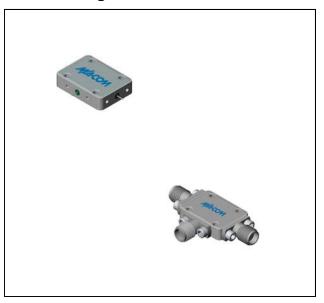
Description

MY50A 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		
MY50A	Versapac		
MY50AC	SMA Connectorized		

Product Image



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

Doromotor	Test Conditions	Units	Typical	Guaranteed	
Parameter				+25°C	-54º to +85ºC
SSB Conversion Loss (max) & SSB Noise Fig- ure (max)	fR = 2.5 to 18 GHz, fL = 2 to 18 GHz, fI = 1 to 10 GHz fR = 2 to 18 GHz, fL = 2 to 26 GHz, fI = 1 to 12 GHz	dB dB	7.5 8.0	9.5 10.5	10.0 11.0
Isolation, L to R (min)	fL = 2 to 3 GHz fL = 3 to 26 GHz	dB dB	22 30	15 20	
Isolation, L to I (min)	fL = 7 to 26 GHz fL = 2 to 7 GHz	dB dB	30 22	20 15	
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 = 15 GHz at -6 dBm, fR2 = 15.01 GHz at -6 dBm, fL =25 GHz at +10 dBm	dBm dBm	+15 +12		

Commitment to produce in volume is not guaranteed.

[•] North America Tel: 800.366.2266 • Europe Tel: +353.21.244.6400

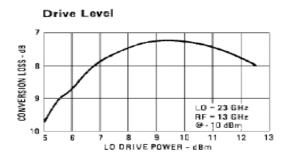
[•] India Tel: +91.80.4155721



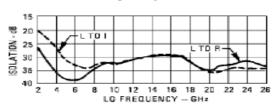
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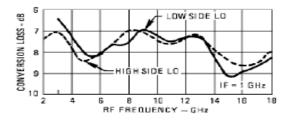
Typical Performance Curves



Isolation vs. Frequency

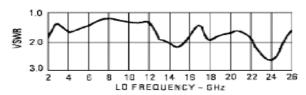


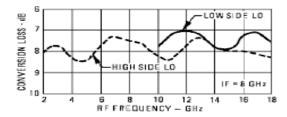
Conversion Loss vs. Frequency LO @ +10 dBm



20 ISOLATION - dB TDI 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 RF FREQUENCY -- GHz

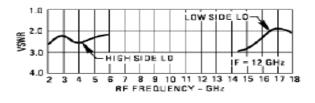
L-Port VSWR





CONVERSION LOSS - dB LOW SIDE LO HIGH SIDE LO IF = 12 GHz 6 8 10 12 RFFREQUENCY ~ GHz 16

R-Port VSWR



2

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MY50A / MY50AC



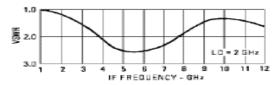
Triple-Balanced Mixer

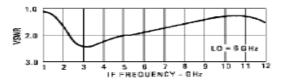
Rev. V2

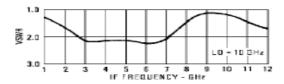
Absolute Maximum Ratings

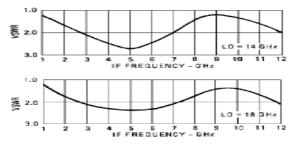
Parameter	Absolute Maximum		
Operating Temperature	-54°C to +100°C		
Storage Temperature	-65°C to +100°C		
Peak Input Power	+26 dBm max @ +25°C +22 dBm max @ +100°C		
Peak Input Current	mA DC		

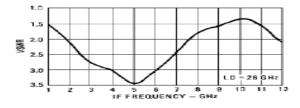
I-Port VSWR vs. Frequency, LO @ +10 dBm





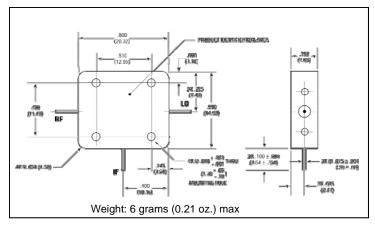




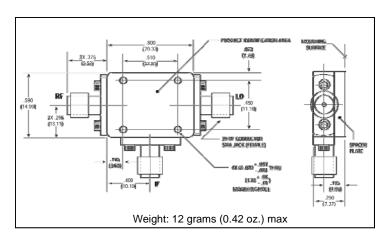


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Outline Drawing: Versapac



Outline Drawing: SMA Connectorized



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

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