



Double-Balanced Mixer

MY76/MY76C

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Features

- LO 2.5 TO 11.5 GHz
- RF 4.5 TO 9.5 GHz
- IF DC TO 2.0 GHz
- LO DRIVE: +10 dBm (NOMINAL)
- LOW NOISE FIGURE 5.5 dB (TYP.)

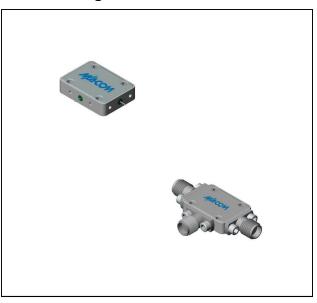
Description

The MY76 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 and ferrite 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
MY76	Versapac
MY76C	SMA Connectorized

Product Image



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

Parameter	Parameter Test Conditions		Typical	Guaranteed	
r di dilicici		Units		+25°C	-54° to +85°C
SSB Conversion Loss (max) & SSB Noise Figure (max)	fR = 6 to 8 GHz, fL = 4 to 9 GHz, fI = 0.03 to 2 GHz fR = 5 to 9 GHz, fL = 4 to 9 GHz, fI = 0.03 to 1 GHz fR = 4.5 to 9.5 GHz, fL = 2.5 to 11.5 GHz, fI = 0.03 to 2 GHz	dB dB dB	5.5 5.5 6.0	7.0 7.0 8.0	7.5 7.5 8.5
Isolation, L to R (min)	fL = 2.5 to 9 GHz fL = 9 to 11.5 GHz	dB dB	40 30	25 20	23 18
Isolation, L to I (min)	fL = 4 to 11.5 GHz fL = 2.5 to 4 GHz	dB dB	25 20	15 10	13 8
1 dB Conversion Comp. fL = +10 dBm		dBm	+3		
Input IP3	fR1 = 7 GHz at –6 dBm, fR2 = 7.01 GHz at –6 dBm, fL = 8 GHz at +10 dBm	dBm	+13		

North America Tel: 800.366.2266 / Fax: 978.366.2266
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information.





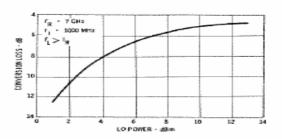
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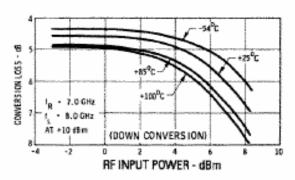
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Typical Performance Curves

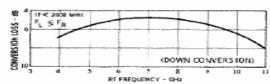
Conversion Loss Vs. LO Drive

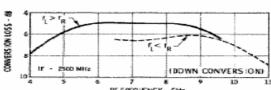


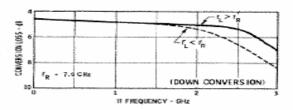
Conversion Loss vs. RF Input Power



Conversion Loss vs. Frequency



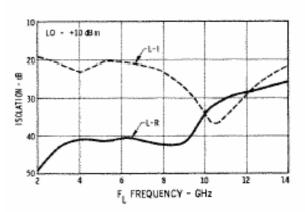




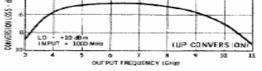
Isolation vs. Frequency

1, > 18

LO - +30 dBm







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f_R FREQUENCY - GHz





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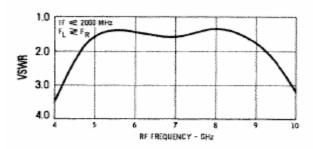
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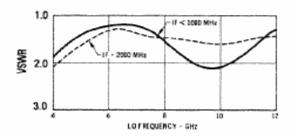
Absolute Maximum Ratings

Parameter	Absolute Maximum		
Operating Temperature	-54°C to +100°C		
Storage Temperature	-65°C to +100°C		
Peak Input Power	+23 dBm max @ +25°C +20 dBm max @ +100°C		
Peak Input Current	100 mA DC		

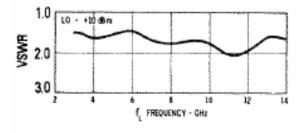
R-Port VSWR vs. Frequency



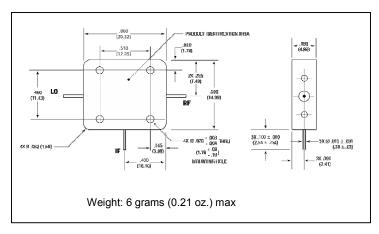
I-Port VSWR vs. fL



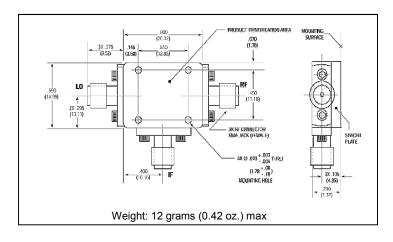
L-Port VSWR vs. Frequency



Outline Drawing: Versapac



Outline Drawing: SMA Connectorized *



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

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