MY76 / MY76C



Double-Balanced Mixer

Rev. V3

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.)

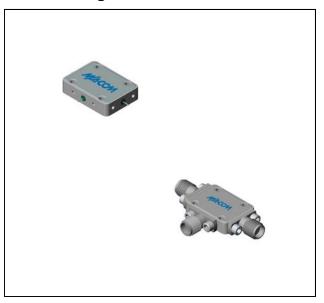
Description

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	
rarameter rest conditions		Units		+25°C	-54º to +85ºC
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		

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India Tel: +91.80.4155721
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 Visit www.macomtech.com for additional data sheets and product information.

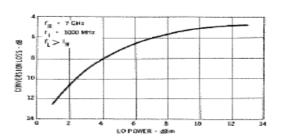


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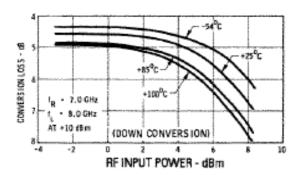
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Typical Performance Curves

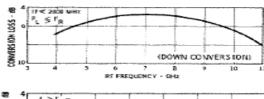
Conversion Loss Vs. LO Drive

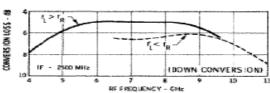


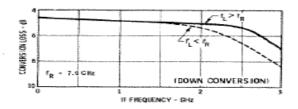
Conversion Loss vs. RF Input Power



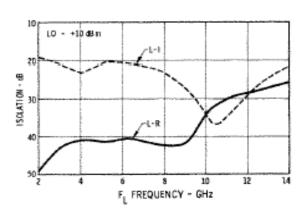
Conversion Loss vs. Frequency



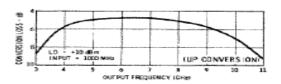




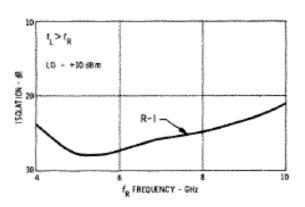
Isolation vs. Frequency



Conversion Loss vs. Output Frequency



Commitment to produce in volume is not guera



- **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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 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 up a may be a vailable.
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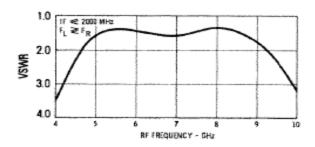
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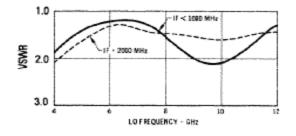
Absolute Maximum Ratings

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		

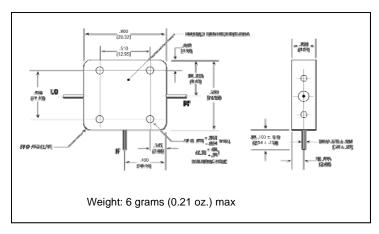
R-Port VSWR vs. Frequency



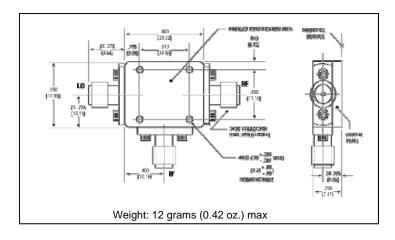
I-Port VSWR vs. f



Outline Drawing: Versapac

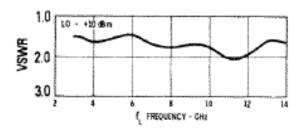


Outline Drawing: SMA Connectorized *



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

L-Port VSWR vs. Frequency



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