# MY88H / MY88HC



## **Triple-Balanced Mixer**

Rev. V2

#### **Features**

- LO 2 TO 18 GHz
- RF 2 TO 18 GHz
- IF 2 TO 8 GHz
- LO DRIVE +21 dBm (nominal)
- WIDE BANDWIDTH
- HIGH THIRD-ORDER I.P. +24 dBm (TYP.)

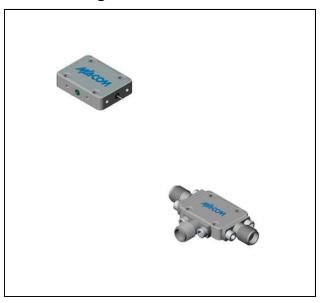
### **Description**

MY88H 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		
MY88H	Versapac		
MY88HC	SMA Connectorized		

### **Product Image**



# Electrical Specifications: $Z_0 = 50\Omega$ Lo = +21 dBm (Downconverter Application only)

Parameter	Test Conditions	Units	Typical	Guaranteed	
Parameter				+25°C	-54º to +85ºC
SSB Conversion Loss (max) & SSB Noise Figure (max)	fR = 2 to 10 GHz, fL = 2 to 18 GHz, fI = 2 to 8 GHz fR = 10 to 18 GHz, fL = 2 to 18 GHz, fI = 2 to 8 GHz	dB dB	7.5 8.0	10.0 10.5	10.3 10.8
Isolation, L to R (min)	fL = 2 to 18 GHz	dB	28	15	14
Isolation, L to I (min)	fL = 2 to 18 GHz	dB	32	17	16
1 dB Conversion Comp.	fL = +24 dBm	dBm	+17		
Input IP3	fR1 = 6 GHz at 0 dBm, fR2 = 6.01 GHz at 0 dBm, fL = 8 GHz at +21 dBm fR1 = 14 GHz at 0 dBm, fR2 = 14.01 GHz at 0 dBm, fL = 10 GHz at +21 dBm	dBm dBm	+26 +24		

<sup>•</sup> North America Tel: 800.366.2266 • Europe Tel: +353.21.244.6400

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Visit www.macomtech.com for additional data sheets and product information.

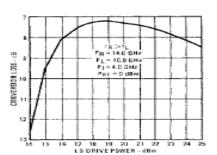


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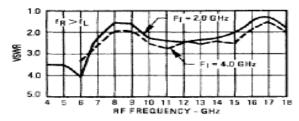
## **Typical Performance Curves**

#### Conversion Loss vs Lo Drive Power

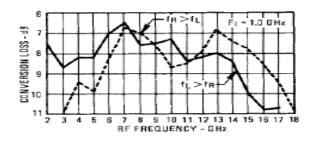


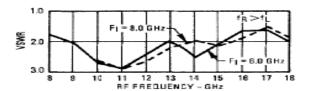
Drive Level: The maximum recommended drive level is +24 dBm

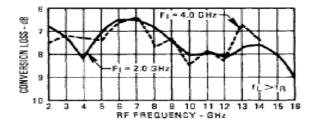
### R-Port VSWR Lo@ + 21 dBm

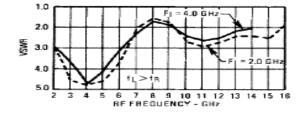


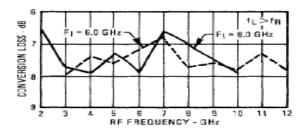
#### Conversion Loss vs Input Frequency Lo @ + 21 dBm



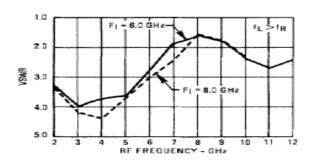








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PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples Commitment to produce in volume is not guara

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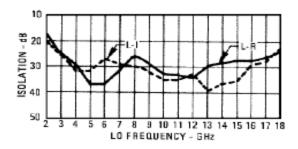
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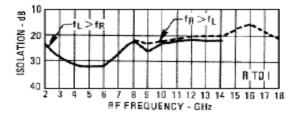
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## **Absolute Maximum Ratings**

Parameter	Absolute Maximum		
Operating Temperature	-54°C to +100°C		
Storage Temperature	-65°C to +100°C		
Peak Input Power	+27 dBm max @ +25°C +24 dBm max @ +100°C		
Peak Input Current	100 mA DC		

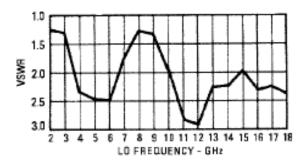
#### Isolation vs Frequency



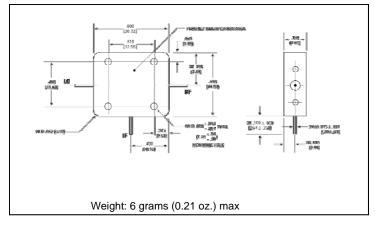


#### L-Port VSWR @ + 21 dBm

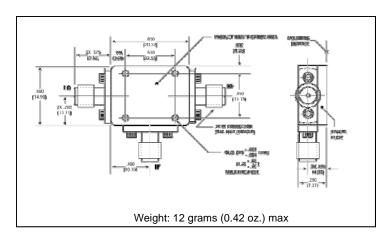
Commitment to produce in volume is not d



# Outline Drawing: Versapac \*



# Outline Drawing: SMA Connectorized \*



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

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