

Features

- LO 2 TO 18 GHz
- RF 2 TO 18 GHz
- IF 1 TO 8 GHz
- LO DRIVE: +13 dBm (NOMINAL)
- WIDE BANDWIDTH

Description

MY88 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.

Product Image



Ordering Information

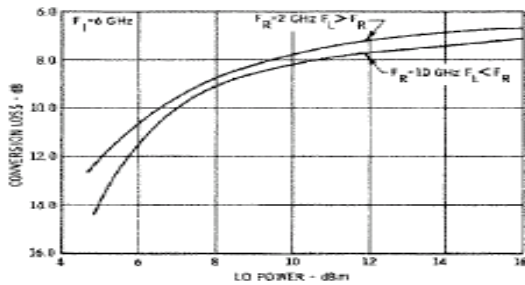
| Part Number | Package |
|-------------|-------------------|
| MY88 | Versapac |
| MY88C | SMA Connectorized |

Electrical Specifications: $Z_0 = 50\Omega$ $Lo = +13$ dBm (Downconverter Application only)

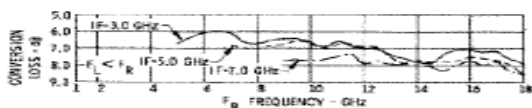
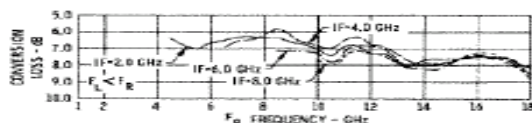
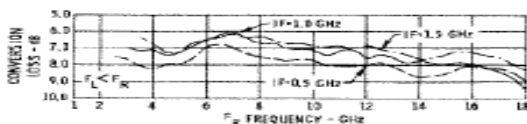
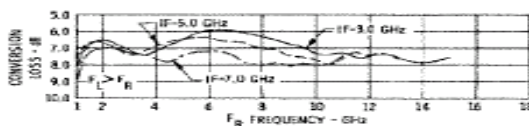
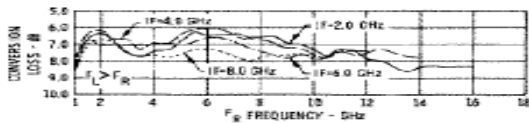
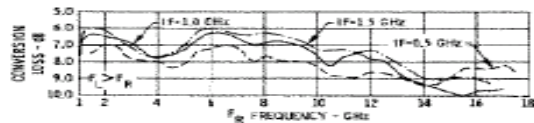
| Parameter | Test Conditions | Units | Typical | Guaranteed | |
|--|--|-------|---------|------------|---------------|
| | | | | +25°C | -54° to +85°C |
| SSB Conversion Loss (max) & SSB Noise Figure (max) | fR = 2 to 10 GHz, fL = 2 to 18 GHz, fI = 1 to 8 GHz fR = 10 to 18 GHz, fL = 10 to 18 GHz, fI = 2 to 8 GHz fR = 10 to 18 GHz, fL = 2 to 10 GHz, fI = 2 to 8 GHz | dB | 7.5 | 10.0 | 10.5 |
| | | | 8.0 | 10.5 | 11.0 |
| | | | 8.0 | 11.0 | 11.5 |
| Isolation, L to R (min) | fL = 2 to 18 GHz | dB | 28 | 15 | 13 |
| Isolation, L to I (min) | fL = 2 to 18 GHz | dB | 32 | 16 | 14 |
| 1 dB Conversion Comp. | fL = +13 dBm | dBm | +7 | | |
| Input IP3 | fR1 = 6 GHz at -3 dBm, fR2 = 6.01 GHz at -3 dBm, fL = 10 GHz at +13 dBm fR1 = 15 GHz at -3 dBm, fR2 = 15.01 GHz at -3 dBm, fL = 18 GHz at +13 dBm | dBm | +18.5 | | |
| | | | +22 | | |

Typical Performance Curves

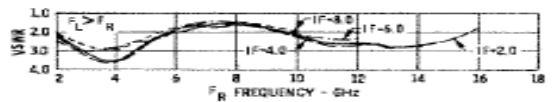
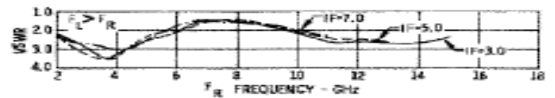
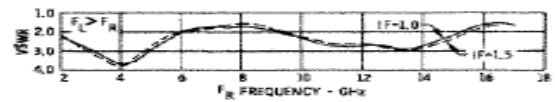
Conversion Loss vs. Drive Power



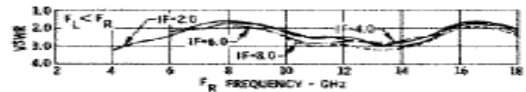
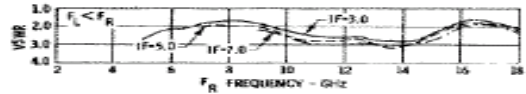
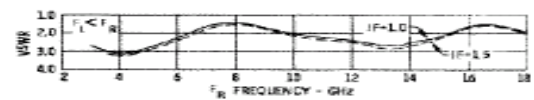
Conversion Loss vs. Frequency, LO @ +13 dBm



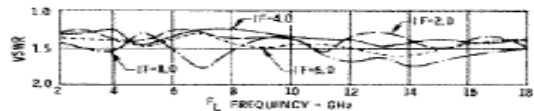
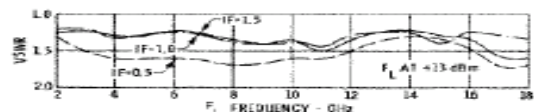
R-Port VSWR LO @ +13 dBm



R-Port VSWR LO @ +13 dBm



I-Port VSWR vs. Frequency LO @ +13 dBm



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.

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.

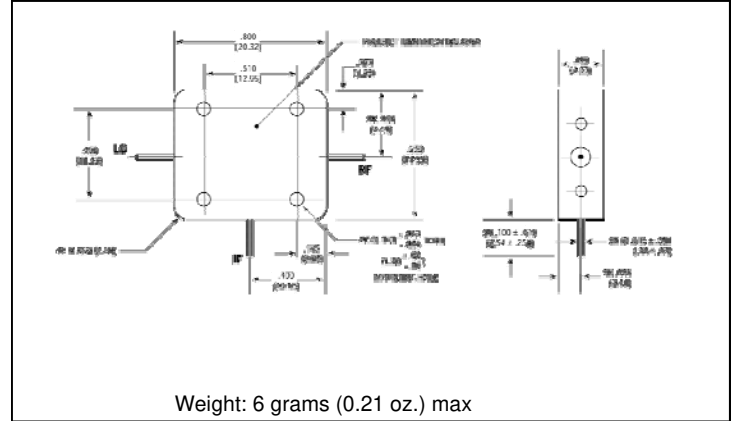
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 Visit www.macontech.com for additional data sheets and product information.

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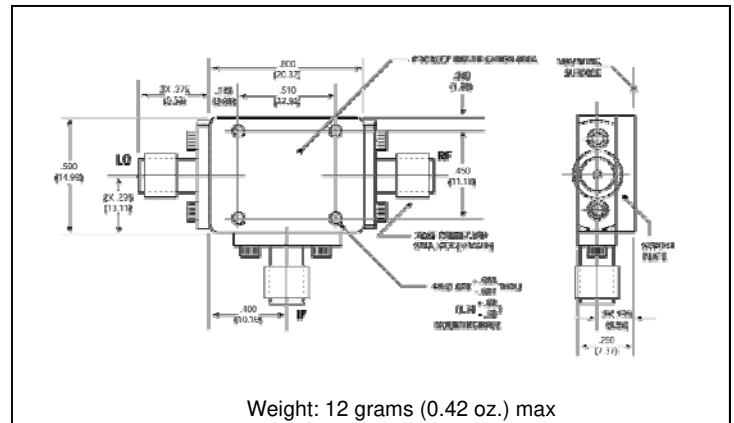
Absolute Maximum Ratings

| 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 +23 dBm max @ +100°C |
| Peak Input Current | 100 mA DC |

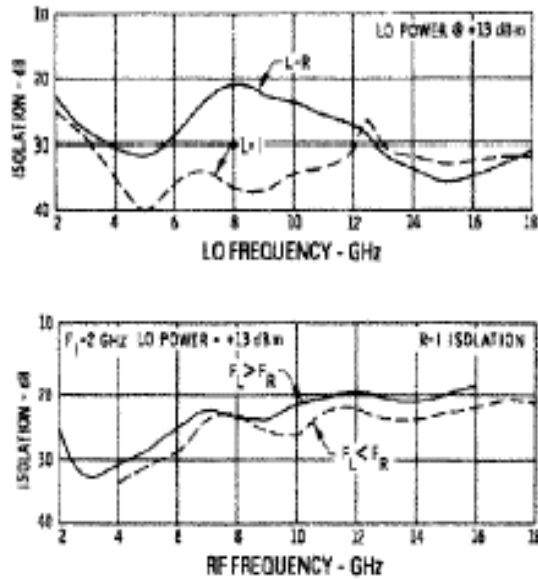
Outline Drawing: Versapac *



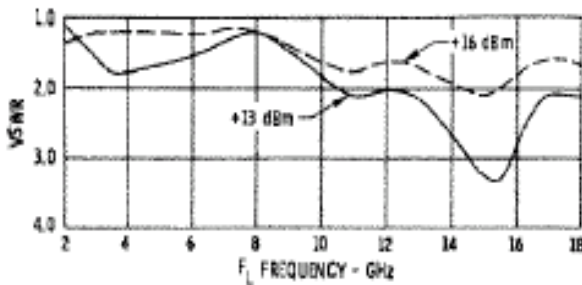
Outline Drawing: SMA Connectorized *



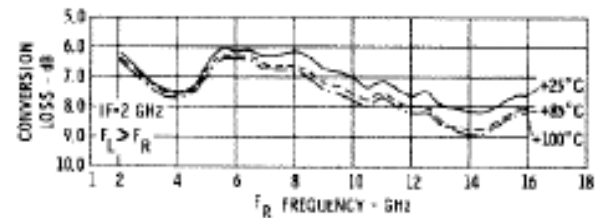
Isolation vs Frequency



L-Port VSWR



Conversion Loss vs. Frequency & Temperature LO @ +13 dBm



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