

Triple-Balanced Mixer

Rev. V2

Features

- LO & RF 2.0 TO 18.0 GHz
- IF 0.03 TO 5.0 GHz
- LO DRIVE +20 dBm (NOMINAL)
- HIGH IP3 +24 dBm (TYP.)
- WIDE BANDWIDTH

Description

MY83H 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
MY83H	Versapac
MY83HC	SMA Connectorized

Product Image



Electrical Specifications: $Z_0 = 50\Omega$ $Lo = +20$ 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 18 GHz, fL = 2 to 18 GHz, fI = 0.03 to 5 GHz	dB	8.5	11.0	1.3
Isolation, L to R (min)	fL = 2 to 3 GHz fL = 3 to 18 GHz	dB	16	12	11
		dB	25	16	15
Isolation, L to I (min)	fL = 2 to 18 GHz	dB	30	20	19
1 dB Conversion Comp.	fL = +20 dBm	dBm	+17		
Input IP3	fR1 = 6 GHz at 0 dBm, fR2 = 6.01 GHz at 0 dBm, fL = 8 GHz at +20 dBm fR1 = 14 GHz at 0 dBm, fR2 = 14.01 GHz at 0 dBm, fL = 18 GHz at +20 dBm	dBm	+26		
		dBm	+24		

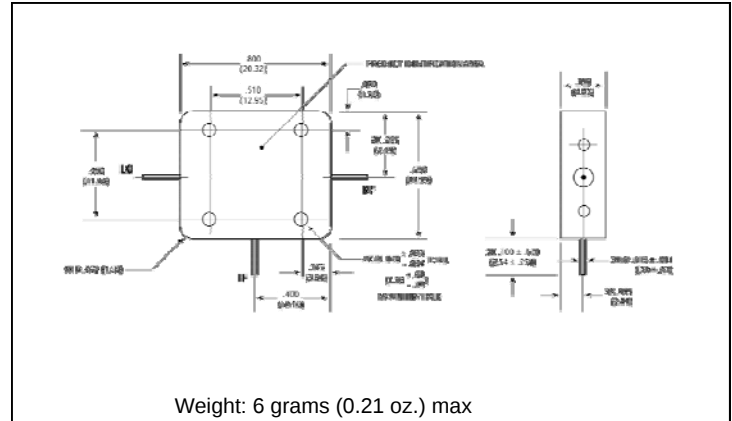
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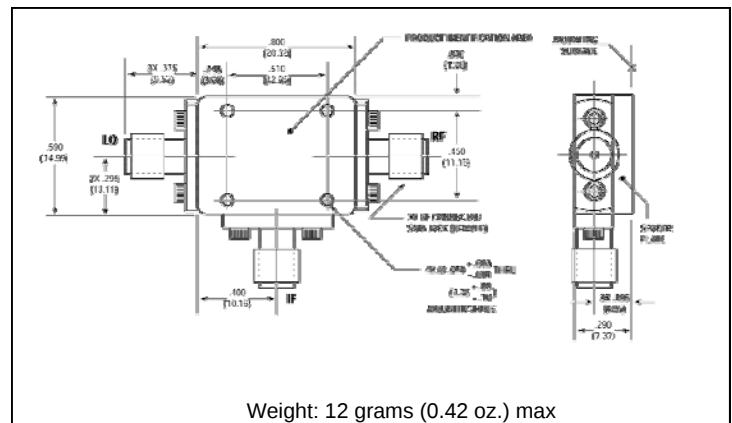
Absolute Maximum Ratings

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 +21 dBm max @ +100°C
Peak Input Current	100 mA DC

Outline Drawing: Versapac *



Outline Drawing: SMA Connectorized *



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