

Double-Balanced Mixer

5 - 1500 MHz

MD-158

V2.00

Features

- 6 dB Typical Midband Conversion Loss
- 35 dB Typical Midband LO-RF Isolation
- 1.5 dB Typical Conversion Loss Flatness

Guaranteed Specifications* (From -55°C to +85°C)

Frequency Range	RF, LO Ports IF Port	5-1500 MHz DC-1000 MHz
Conversion Loss	5-1500 MHz 5-1000 MHz	9 dB Max 7 dB Max
Isolation		
LO to RF	(5-1500 MHz) (5-1000 MHz) (5-600 MHz)	20 dB Min 25 dB Min 30 dB Min
LO to IF	(5-1500 MHz) (5-1000 MHz)	17 dB Min 20 dB Min
RF to IF	(5-1500 MHz) (5-1000 MHz) (5-600 MHz)	8 dB Min 18 dB Min 20 dB Min

Operating Characteristics

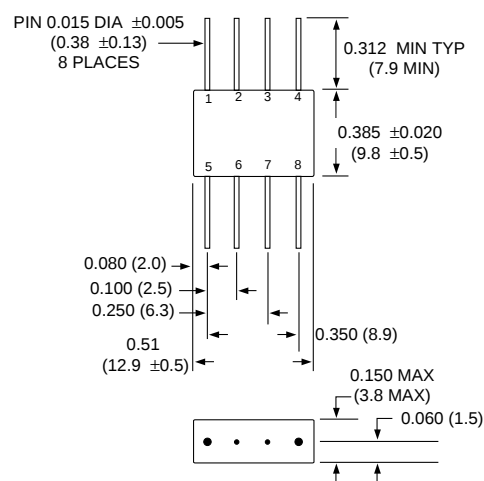
Impedance	50 Ohms Nominal
Maximum Input Total Power	300 mW Max @ 25°C Derated to 85°C @ 3.2 mW/°C
IF Port Current	50 mA Max
DC Polarity	Negative
DC Offset	≤1 mV Typical
RF Input	
1 dB Compression	+ 1 dBm Typical
1 dB Desensitization	- 1 dBm Typical
SSB Noise Figure	Within 1 dB of Conversion Loss Max
Typical Two-Tone IM Ratio (with -10 dBm input, each input, 60 MHz and 70 MHz IF)	50 dB @ 300 MHz 48 dB @ 1000 MHz
Environmental MIL-STD-883 screening available.	
Pin Configuration	RF; P8, LO; P5, IF; P4 Case and all other pins are ground.

*All specifications apply when operated at +7 dBm available LO power with 50 ohm source and load impedance.

Ordering Information

Part No.	Package
MD-158 PIN	Flatpack

FP-2



Dimensions in () are in mm.
Unless Otherwise Noted: .xxx = ±0.010 (.xx = ±0.25)
.xx = ±0.02 (.x = ±0.5)
WEIGHT (APPROX.): 0.09 OUNCES 2.5 GRAMS

Specifications Subject to Change Without Notice.

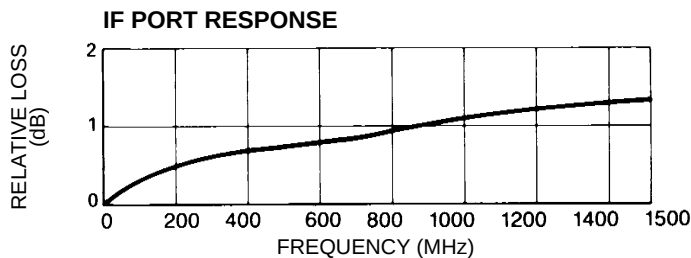
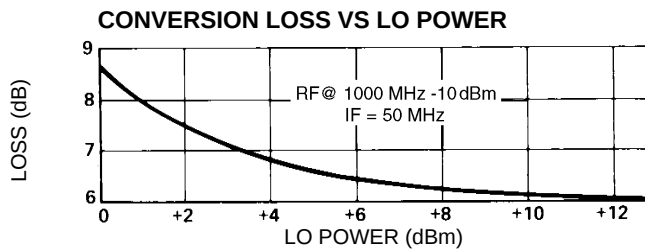
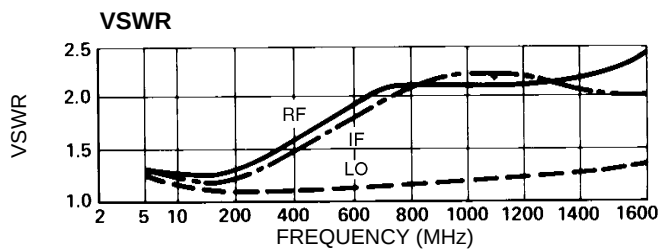
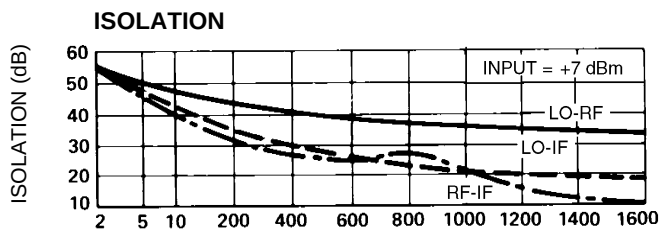
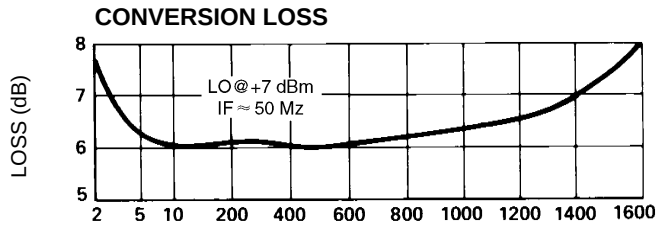
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Typical Performance



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