



Double-Balanced Mixer

10-1000 MHz

MD-110

- Low Cost
- 7 dB Typical Conversion Loss
- High Isolation

Guaranteed Specifications*

(From -55°C to +85°C)

Frequency Range	RF, LO Ports	10-1000 MHz
	IF Port	DC-1000 MHz
Conversion Loss	10-50 MHz	8.0 dB Max
	50-800 MHz	7.5 dB Max
	800-1000 MHz	9.0 dB Max
Isolation	LO to RF	(10-100 MHz) 45 dB Min
		(100-400 MHz) 40 dB Min
		(400-800 MHz) 30 dB Min
		(800-1000 MHz) 25 dB Min
	LO to IF	(10-100 MHz) 40 dB Min
		(100-400 MHz) 27 dB Min
		(400-800 MHz) 25 dB Min
		(800-1000 MHz) 20 dB Min
	RF to IF	(10-100 MHz) 30 dB Min
		(100-400 MHz) 20 dB Min
		(400-800 MHz) 15 dB Min
		(800-1000 MHz) 12 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 0 dBm Typ
 1 dB Desensitization -2.0 dBm Typ

SSB Noise Figure Within 1 dB of Conversion Loss

Typical Two-Tone IM Ratio 200 MHz ≥ 55 dB
 (with -10 dBm input, each) 600 MHz ≥ 40 dB
 input, 50 MHz and 60 MHz IF)

Environmental

See Appendix for MIL-STD-883 screening option.

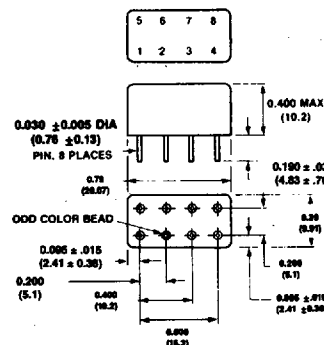
Pin Configuration RF; P8, LO; P1, IF; P3 & P7**
 Case and all other pins are ground.

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

**P3 & P7 are connected together externally to make an IF Port.

Ordering Information

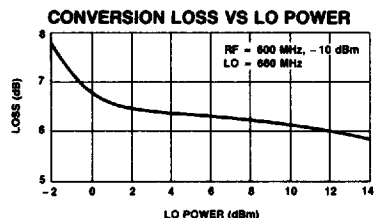
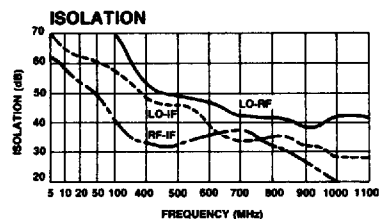
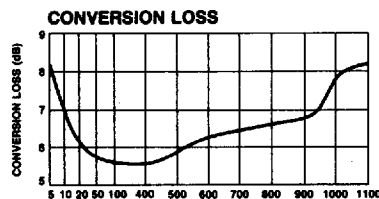
Model No.	Package
MD-110 PIN	Relay Header

RH-3


Dimensions in () are in mm.

See Appendix for complete physical dimensions.

Typical Performance



Specifications Subject to Change Without Notice.

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