



Double-Balanced Mixer

0.7-2 GHz

MD-/MDS-614

- Fully Hermetic Package (MDS-614)
- 6 dB Typical Midband Conversion Loss
- 25 dB Typical Isolation

Guaranteed Specifications*

(From -55°C to +85°C)

Frequency Range	RF, LO Ports IF Port	0.7 - 2 GHz DC-300 MHz
Conversion Loss		8 dB Max
Isolation	LO to RF	(0.7-1 GHz) 23 dB Min (1-2 GHz) 20 dB Min
	LO to IF	(0.7-1 GHz) 20 dB Min (1-2 GHz) 12 dB Min
	RF to IF	(0.7-1 GHz) 23 dB Min (1-2 GHz) 15 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	≤3 mV Typical
RF Input	
	1 dB Compression 0 dBm Typical 1 dB Desensitization -3 dBm Typical
SSB Noise Figure	Within 1 dB of Conversion Loss Max
Typical Two-Tone IM Ratio (with -10 dBm Input, each input, 25 MHz and 35 MHz IF)	600-2000 MHz ≥ 36 dB
Package Type	Surface Mount (SF-1)
	(See page 490 for physical dimensions)

Environmental

See Appendix for MIL-STD-883 screening option.

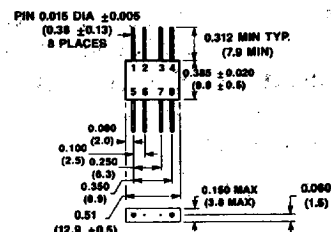
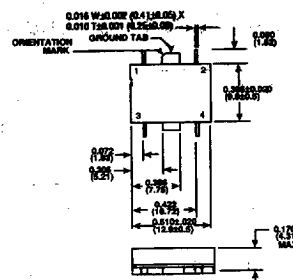
Pin Configuration

 MDS-614 RF; P4, LO; P3, IF; P2
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

Model No.	Package
MD-614 PIN	Flatpack
MDS-614 PIN	Surface Mount

FP-2

SF-1


Dimensions in () are in mm.

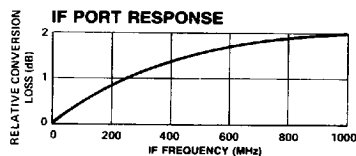
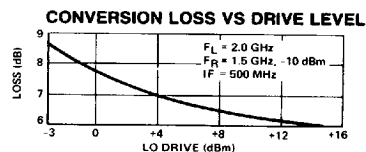
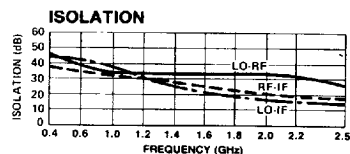
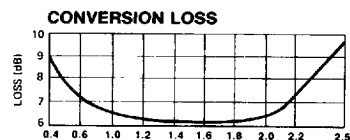
See Appendix for complete physical dimensions.

Specifications Subject to Change Without Notice.

M/A-COM Inc. ■ 1011 Pawtucket Boulevard, Lowell, MA 01853 USA

Telephone: 800-366-2266

Typical Performance



Pin Configuration

MD-614

Pin Number	Description
1	Ground
2	Ground
3	Ground
4	IF
5	LO
6	Ground
7	Ground
8	RF

MDS-614

Pin Number	Description
1	Ground
2	IF
3	LO
4	RF

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