



MODEL MD-138

HIGH LEVEL DOUBLE-BALANCED MIXER 1-500 MHz

Low Third Order Distortion — Typical
+ 24 dBm Third Order Intercept Point
High Compression Point — + 14 dBm
Minimum

Guaranteed Specifications*

(From -55°C to +85°C)

Frequency Range	RF, LO Ports	1-500 MHz	
	IF Port	DC-500 MHz	
Conversion Loss	1-400 MHz	8.5 dB Max	
	400-500 MHz	9.5 dB Max	
Isolation	LO to RF	(1-150 MHz)	45 dB Min
		(150-400 MHz)	25 dB Min
		(400-500 MHz)	20 dB Min
	LO to IF	(1-150 MHz)	45 dB Min
		(150-400 MHz)	25 dB Min
		(400-500 MHz)	20 dB Min
RF to IF	(1-150 MHz)	25 dB Min	
	(150-400 MHz)	20 dB Min	
	(400-500 MHz)	20 dB Min	

Operating Characteristics

Impedance 50 Ohms Nominal

Maximum Input
Total Power 400 mW Max @ 25°C
Derated to 85°C @ 3.2 mW/°C

IF Port Current 50 mA Max

DC Polarity Positive
(with P5 grounded)

DC Offset ≥ 2 mV Typical

RF Input
1 dB Compression
1-100 MHz + 19 dBm Typical
100-500 MHz + 14 dBm Typical
1 dB Desensitization + 12 dBm Typical

SSB Noise Figure Within 1 dB of Conversion
Loss Max

Typical Two-Tone IM Ratio (with -5 dBm input, each input, 60 MHz and 70 MHz IF)
80-125 MHz ≥ 55 dB
175-350 MHz ≥ 60 dB

Package Type Relay Header (RH-3)
(See page 473 for physical dimensions.)

Environmental
These units are designed to meet the environmental and screening requirements of Table 1A, page 496 of the Adams-Russell catalog.

Pin Configuration RF; P8, LO; P1 & P5, IF; P3 & P7.
Case and all other pins are ground.

*All specifications apply when operated at +23 dBm available LO power with 50 ohm source and load impedance.

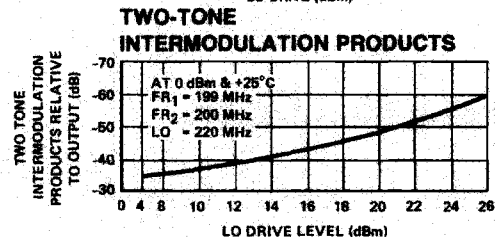
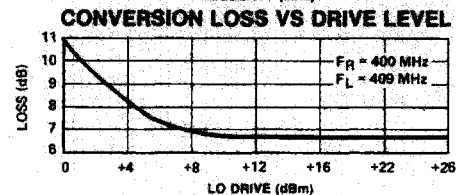
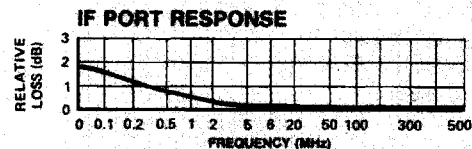
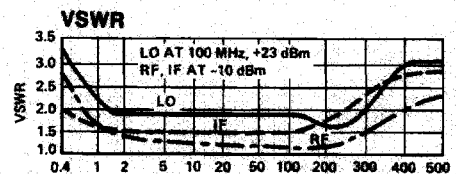
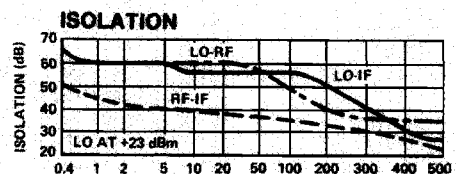
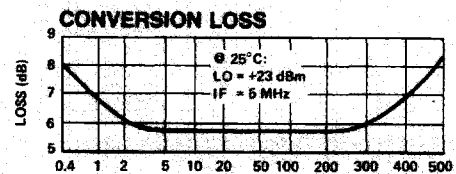
Ordering Information

Model No.	Part No.	Connectors
MD-138	8279	Pin

Delivery is from stock.



Typical Performance



ANZAC

Make the Connection...

Adams Russell

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COMPONENTS GROUP

For Technical Information, Call (617) 273-3333

For Ordering Information, Call (617) 273-3333