



MODELS  
MD-/MDC-149 MD-152

# BROADBAND DOUBLE-BALANCED MIXERS 10-1500 MHz

Over Two-Decade Frequency Range  
6 dB Typical Midband Conversion Loss  
40 dB Typical Midband LO-RF Isolation

## Guaranteed Specifications\*

(From -55°C to +85°C)

<b>Frequency Range</b>	RF, LO Ports	10-1500 MHz	
	IF Port	DC-1500 MHz	
<b>Conversion Loss</b>	10-1000 MHz	7.5 dB Max	
	1000-1500 MHz	10 dB Max	
<b>Isolation</b>	LO to RF	(10-100 MHz)	35 dB Min
		(100-1000 MHz)	30 dB Min
		(1000-1500 MHz)	20 dB Min
	LO to IF	(10-100 MHz)	35 dB Min
		(100-1000 MHz)	20 dB Min
		(1000-1500 MHz)	12 dB Min
RF to IF	(10-100 MHz)	30 dB Min	
	(100-1000 MHz)	18 dB Min	
	(1000-1500 MHz)	8 dB Min	

## Operating Characteristics

<b>Impedance</b>	50 Ohms Nominal	
<b>Maximum Input</b>	Total Power	300 mW Max Derated to 85°C @ 3.2 mW/°C
	IF Port Current	50 mA Max
<b>DC Polarity</b>	Negative	
<b>DC Offset</b>	≤ 4 mV Typical	
<b>RF Input</b>	1 dB Compression	0 dBm Typ
	1 dB Desensitization	-2.0 dBm Typ
<b>SSB Noise Figure</b>	Within 1 dB of Conversion Loss Max	
<b>Typical Two-Tone IM Ratio</b> (with -10 dBm input, each input, 25 MHz and 35 MHz IF)	100-500 MHz	≥ 48 dB
	500-1000 MHz	≥ 43 dB
	1000-1500 MHz	≥ 35 dB
<b>Package Type</b>	MD-149 Flatpack (FP-2)	
	MDC-149 Connectorized (C-7)	
	MD-152 Pin (TO-8-2)	

(See pages 474, 481 and 472 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.

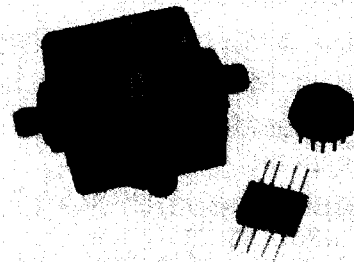
<b>Pin Configuration</b>	MD-149 RF; P8, LO; P5, IF; P4.
	MD-152 RF; P11, LO; P8, IF; P2.
	All other pins are ground.

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

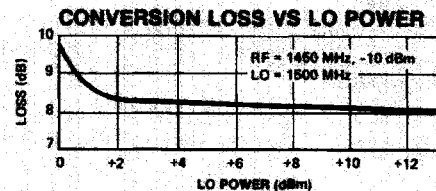
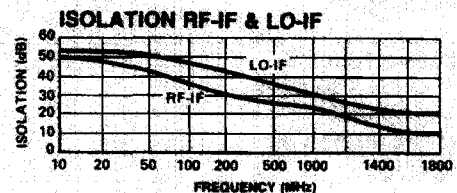
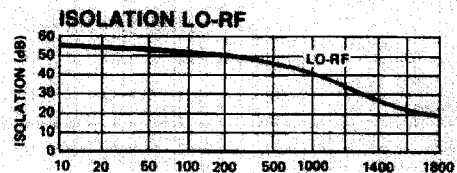
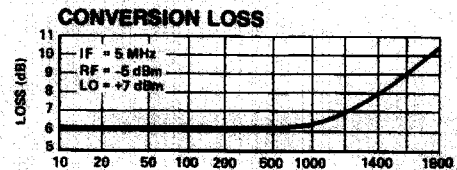
## Ordering Information

Model No.	Part No.	Connectors
MD-149	8599	Pin
MDC-149	8594	SMA
MD-152	8769	Pin

Delivery is from stock.



## Typical Performance



**ANZAC**

Make the Connection...

**Adams Russell**

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COMPONENTS GROUP

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