



**MODEL
MDS-223**

**SURFACE MOUNT DOUBLE-
BALANCED MIXER 5 - 500 MHz**

NEW

Fully Hermetic Package
Low Cost

7 dB Typical Midband Conversion Loss

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

Frequency Range	RF, LO Ports	5-500 MHz	
	IF Port	DC-500 MHz	
Conversion Loss	5-150 MHz	7.0 dB Max	
	150-500 MHz	9.0 dB Max	
Isolation	LO to RF	(5-150 MHz)	40 dB Min
		(150-500 MHz)	35 dB Min
	LO to IF	(5-150 MHz)	35 dB Min
		(150-500 MHz)	25 dB Min
RF to IF	(5-150 MHz)	25 dB Min	
	(150-500 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 Negative

DC Offset ≤ 1 mV Typical

RF Input
1 dB Compression +2.5 dBm Typical
1 dB Desensitization 0 dBm Typical

SSB Noise Figure Within 1 dB of Conversion Loss Max

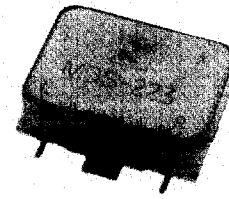
Typical Two-Tone IM Ratio
(with -10 dBm input, each input 25 MHz and 35 MHz IF)
100-350 MHz ≥ 55 dB
350-500 MHz ≥ 40 dB

Package Type Surface Mount (SF-1)
(See page 490 for physical dimensions)

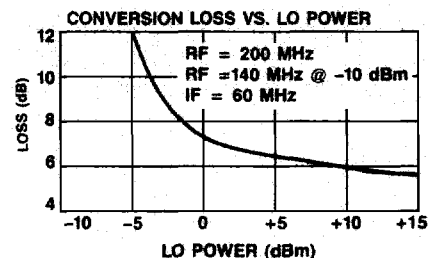
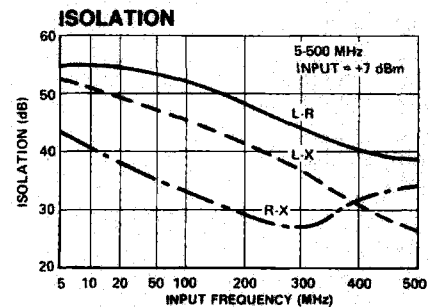
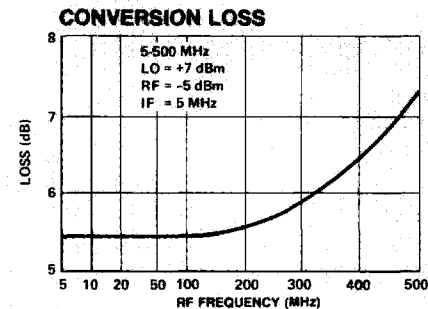
Environmental
These units are designed to meet the environmental and screening requirements of Table 1A, page 496 of the Adams-Russell catalog.

Pin Configuration RF; P4, LO; P3, IF; P2
Case and all other pins are ground
All other pins are ground.

* All specifications apply when operated at +7 dBm available LO power with 50 ohm source and load impedance
** No internal connection
*** P3 and P7 are connected together to make IF port.



Typical Performance



Ordering Information

Model No.	Connectors	Unit Price (5-9 Units)
MDS-223	PIN	\$45

Delivery is from stock

ANZAC ————— **Make the Connection...** ————— **Adams Russell**
80 Cambridge Street, Burlington, MA 01803 Fax (617) 273-1921 COMPONENTS GROUP

For Technical Information, Call (617) 273-3333

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