



E-Series Plug-In Double-Balanced Mixer

5 – 500 MHz

EMD-108

Features

- Low Cost
- +7 dB Typical Conversion Loss

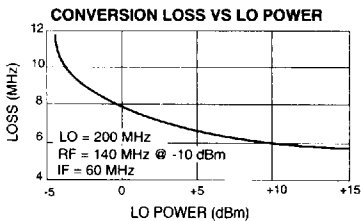
Specifications @ 25°C

Freq. Range	RF, LO IF	5–500 MHz DC–500 MHz
Conversion Loss	5–150 MHz 150–500 MHz	7.0 dB Max 9.0 dB Max
Isolation	LO to R	5–150 MHz 250–500 MHz
	LO to IF	5–150 MHz 250–500 MHz
	RF to IF	5–150 MHz 250–500 MHz
		5–150 MHz 250–500 MHz
		40 dB Min 35 dB Min 35 dB Mn 25 dB Min 25 dB Min 20 dB Min

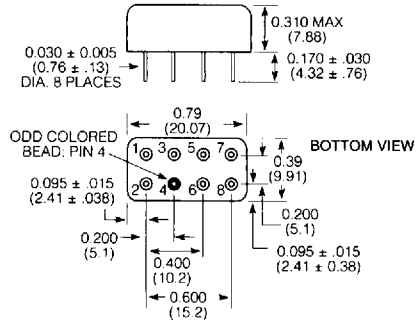
Operating Characteristics

Impedance	50 Ohms Nominal	
Max Input	Total Power	400 mW @ 25 °C Derated to 85 °C @ 3.2 mW/°C
	IF Port Current	50 mA Max
DC Polarity	Negative (Positive if LO input at pin 1)	
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 Conv. 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
Pin Temperature (10 sec.)	+260 °C	

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

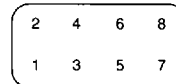


R-1



WEIGHT (APPROX.): 0.16 OUNCES 4.4 GRAMS

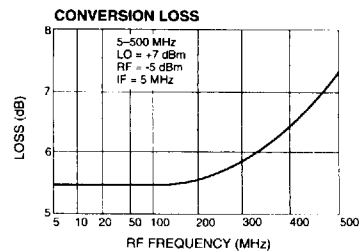
Pin Configuration (Top View)



Function	Pin No.
LO	1,2
RF	8
IF	5,6*
Case Ground	3,4,7

* Pins must be externally connected together.

Typical Performance



Specifications Subject to Change Without Notice

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