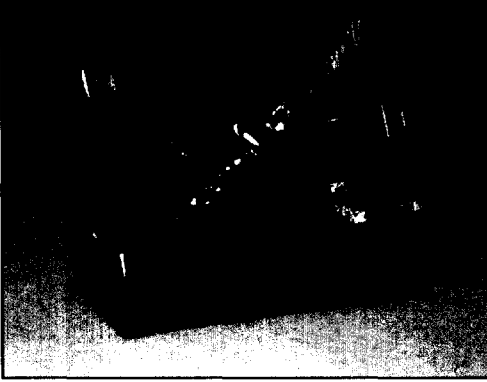


# DOUBLE BALANCED

3 to 18 GHz RF • DC to 1000 MHz IF



## FEATURES

- Surface mount
- Small footprint
- Telecommunications band

## Model MR147L

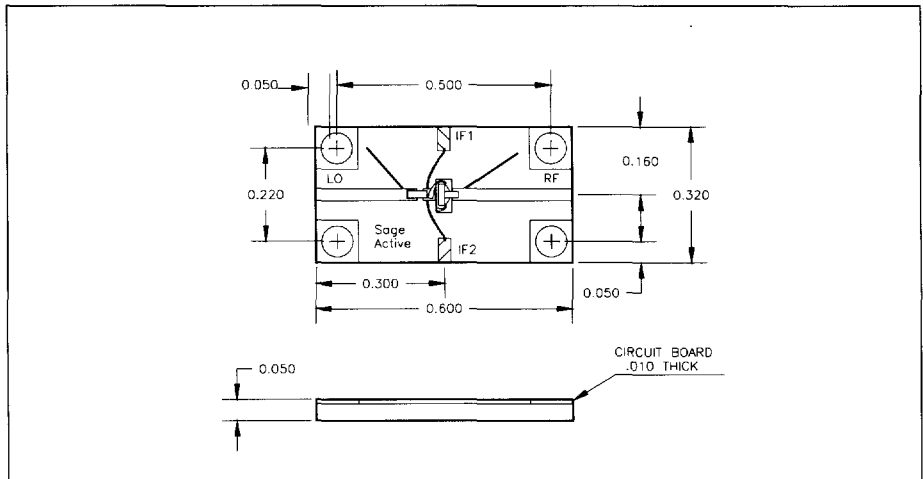


## SPECIFICATIONS

Frequency range RF/LO (GHz)	3 to 18
IF (MHz)	DC to 1500 (3 dB BW)
Conversion loss (dB)	5.5 typ, 8.0 max
LO drive level (dBm)	
L	7 to 11
M*	11 to 15
H*	15 to 20
Isolation	
LO-to-RF (dB)	30 typ, 20 min
LO-to-IF (dB)	25 typ, 15 min
VSWR	
RF	2.2 typ
LO	1.6 typ
Input	
1-dB compression (dBm)	+4 typ, +2 min
2-tone IP3 (dBm)	+15 typ, +12 min
Temperature range	
Operating (°C)	-54 min, +95 max
Storage (°C)	-65 min, +125 max

\* Replace model number suffix L with M or H for higher LO drive option (e.g. MR147H).

## OUTLINE DRAWING



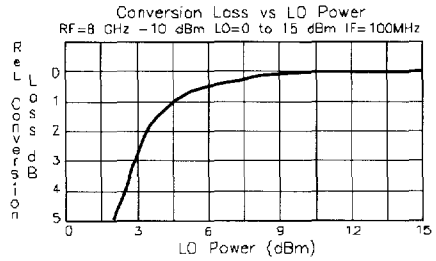
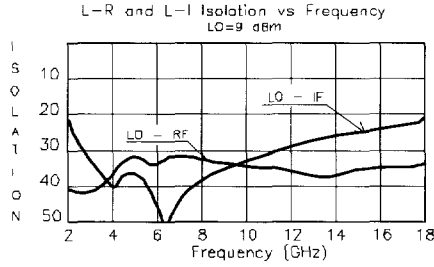
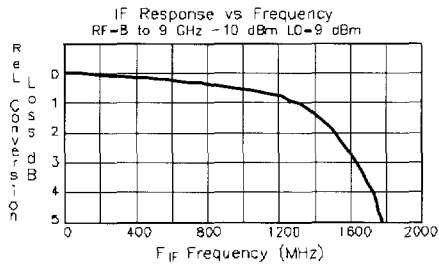
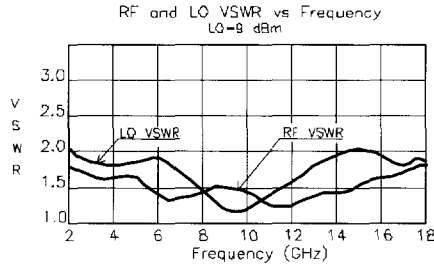
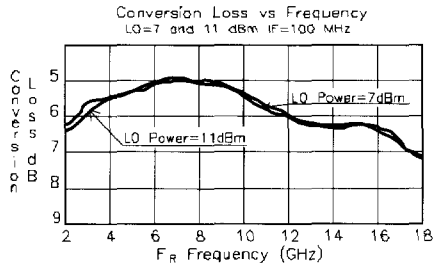
TYPICAL PERFORMANCE AT 25°C

**MR147L**

(Double Balanced Mixer)

**Operating Parameters**

Freq. RF = 2 to 18 GHz  
 LO = 2 to 18 GHz  
 IF = DC to 500 MHz  
 LO Power = 7 to 11 dBm



Single Tone Intermodulation Products

Test Conditions:  
 Frequency RF = 2.0 GHz LO = 2.1 GHz

Single Tone RF IM <sub>L</sub>	RF = 0dBm		RF = -5dBm		RF = -10dBm	
	LO=7dBm	LO=11dBm	LO=7dBm	LO=11dBm	LO=7dBm	LO=11dBm
2 x 1	43	45	46	49	49	53
2 x 2	50	48	54	58	57	62
3 x 2	49	56	53	61	58	68
3 x 3	29	29	35	39	43	48
4 x 3	68	68	>75	>75	>75	>75
5 x 4	55	61	64	73	>75	>75
6 x 3	>75	>75	>75	>75	>75	>75
6 x 5	73	75	>75	>75	>75	>75

**MIXERS**