



SPECIFICATION BULLETIN

MR141L Open Substrate Mixer RF/LO: 4 to 18 GHz IF: to 500 MHz



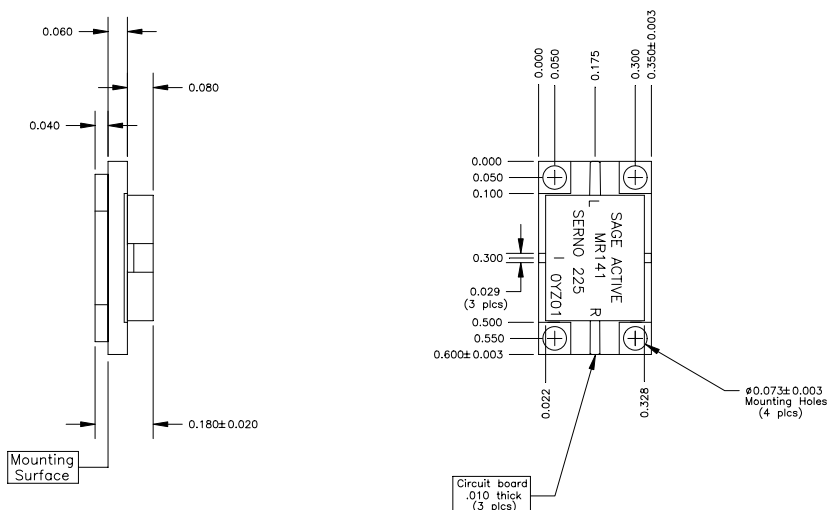
Standard Product Features:

- Surface Mount (Drop-in)
- Double Balanced
- 5.5 dB Typical Conversion Loss
- 30 dB Typical Isolation
- Can be used as Phase Detector
- Low Cost
- Protective Covers

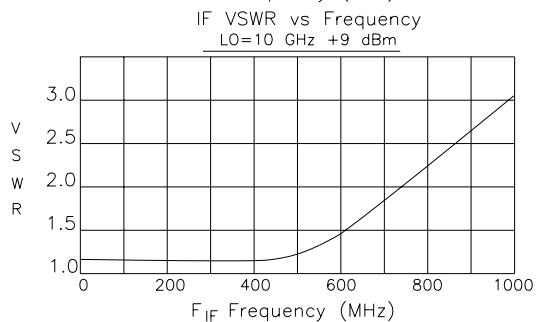
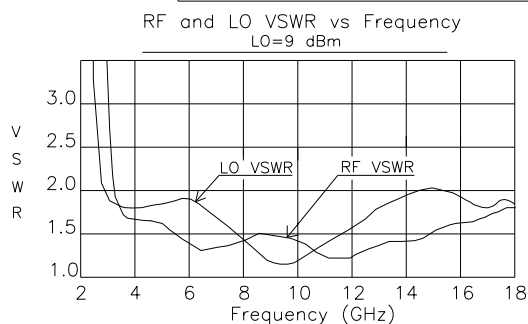
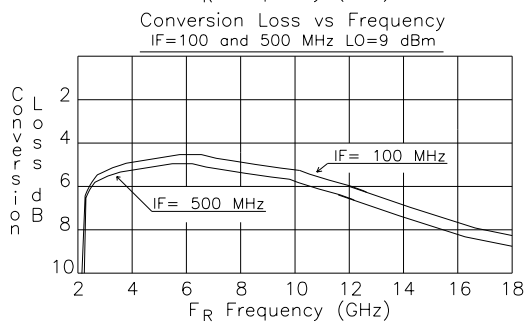
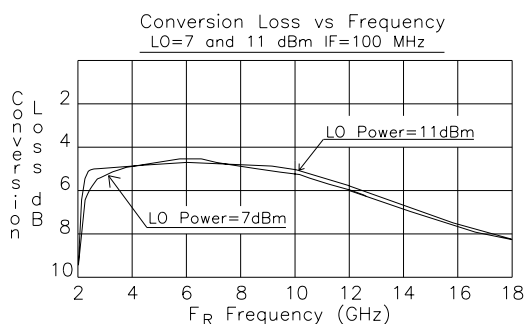
Specifications	Typical	Min.	Max.
RF/LO Frequency Range	-----	4 GHz	18 GHz
IF Frequency Range (3 dB Bandwidth)	-----	DC	1000 MHz
Conversion Loss	5.5 dB	----	9.0 dB
LO Drive Level	9.0 dBm	7.0 dBm	11.0 dBm
Isolation, LO to RF	30 dB	18 dB	---
LO to IF	25 dB	15 dB	---
VSWR, RF	2.2:1	---	---
LO	1.8:1	---	---
Input 1 dB Compression	4 dBm	2 dBm	---
Input Two-Tone Third Order IP (IP3)	14 dBm	10 dBm	---
Operating Temperature Range	---	-54 C	+95 C
Storage Temperature Range	---	-65 C	+125 C

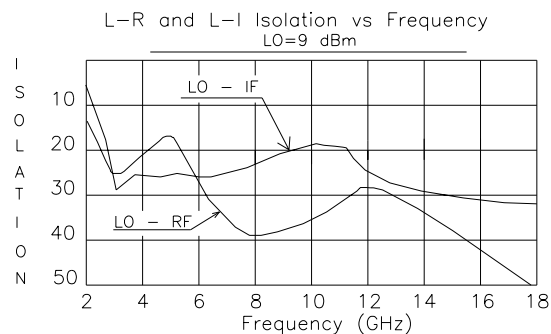
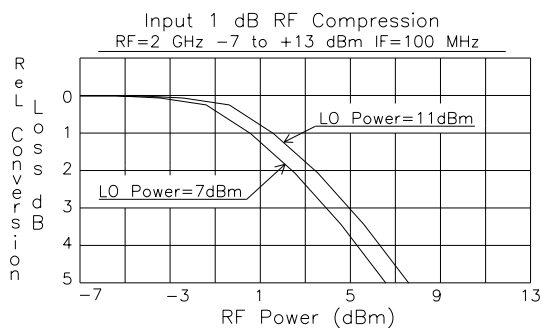
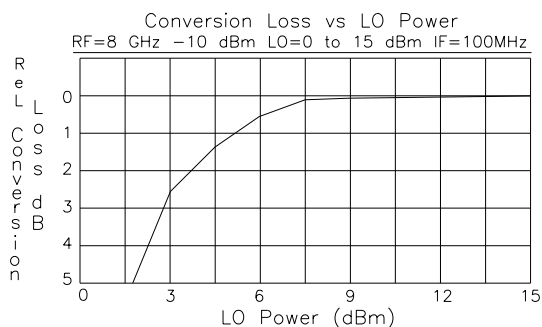
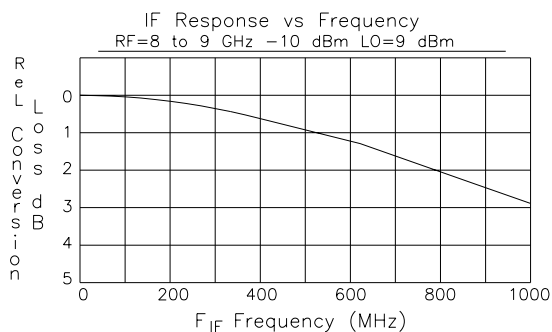
Alternate LO Drive Ranges are available. Consult factory for assistance on your requirements.

OUTLINE DRAWING



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





Single Tone Intermodulation Products

Test Conditions:

Frequency RF= 2.0 GHz LO= 2.1 GHz

Single Tone f_R IM f_L	RF = 0dBm LO=7dBm LO=11dBm	RF = -5dBm LO=7dBm LO=11dBm	RF = -10dBm LO=7dBm LO=11dBm	RF = -15dBm LO=7dBm LO=11dBm	RF = -20dBm LO=7dBm LO=11dBm
2 × 1	43	45	46	49	49
2 × 2	50	48	54	58	57
3 × 2	49	56	53	61	58
3 × 3	29	29	35	39	43
4 × 3	68	68	>75	>75	>75
5 × 4	55	61	64	73	>75
6 × 3	>75	>75	>75	>75	>75
6 × 5	73	75	>75	>75	>75