

5.4 TO 5.9 GHz IMAGE REJECTION MIXER/IF AMP

MODELS: IRA5459LR1A, IRA5459LR1B AND IRA5459LR1C

FEATURES

- RF/LO coverage 5.4 to 5.9 GHz
- IF operation 20 to 200 MHz
- LO power range +7 to +10 dBm
- Conversion gain 27 dB typical
- Image rejection 22 dB typical

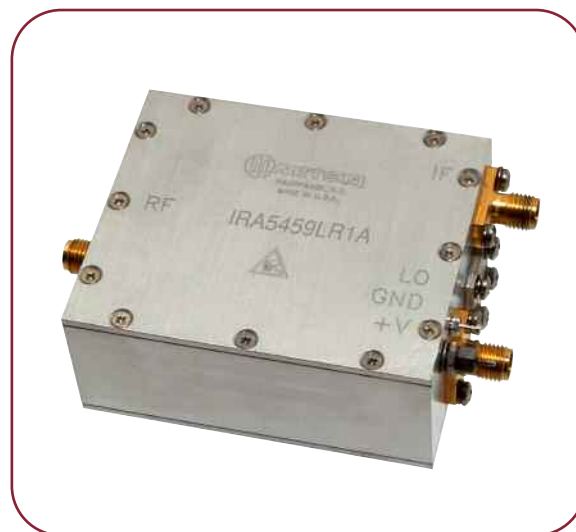
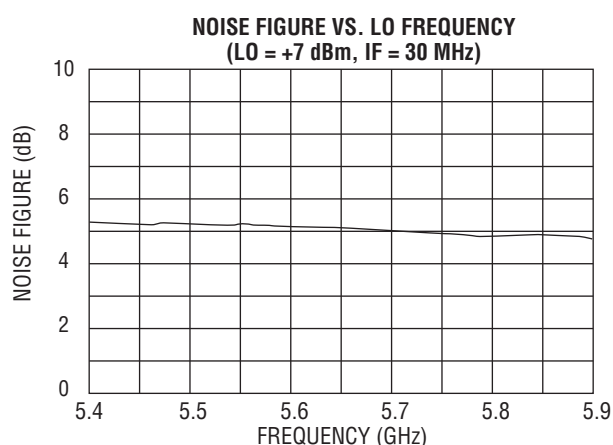
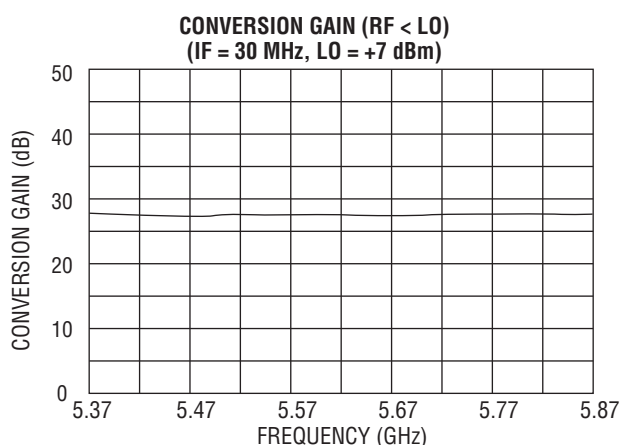
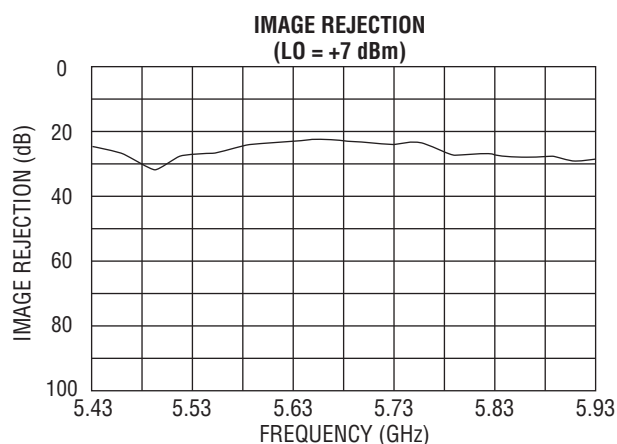
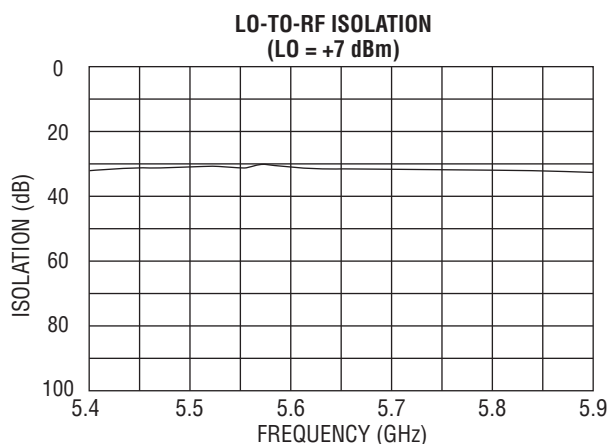


Image rejection mixers are useful for wideband test equipment or ultra-broadband receivers requiring rejection of an unwanted sideband of signal or noise following a low-noise front-end amplifier. The IRA Series of image rejection mixers has an integrated IF amplifier, thus making the overall sensitivity less dependent on the load noise. Now available with sideband selection switch, contact factory.

ELECTRICAL SPECIFICATIONS

INPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
RF frequency range		GHz	5.4		5.9
RF VSWR (RF = -10 dBm)		Ratio		2:1	
LO frequency range		GHz	5.4		5.9
LO power range		dBm	+7		+10
LO VSWR		Ratio		2:1	
Bias	+15 Volts	mA		150	
TRANSFER CHARACTERISTICS	CONDITION	UNITS	MIN.	TYP.	MAX.
Conversion gain		dB	25	27	
Single-sideband noise figure at 25°C		dB		6	7
Image rejection (Note 1)		dB	20	22	
LO-to-RF isolation		dB	20	25	
LO-to-IF isolation		dB	20	22	
Output power at 1 dB compression point		dBm	0	+3	
OUTPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
IF frequency range	IRA5459LR1A	MHz	20		40
	IRA5459LR1B	MHz	40		80
	IRA5459LR1C	MHz	100		200
IF VSWR (IF = -10 dBm)		Ratio		1.5:1	

IRA5459LR1A TYPICAL TEST DATA

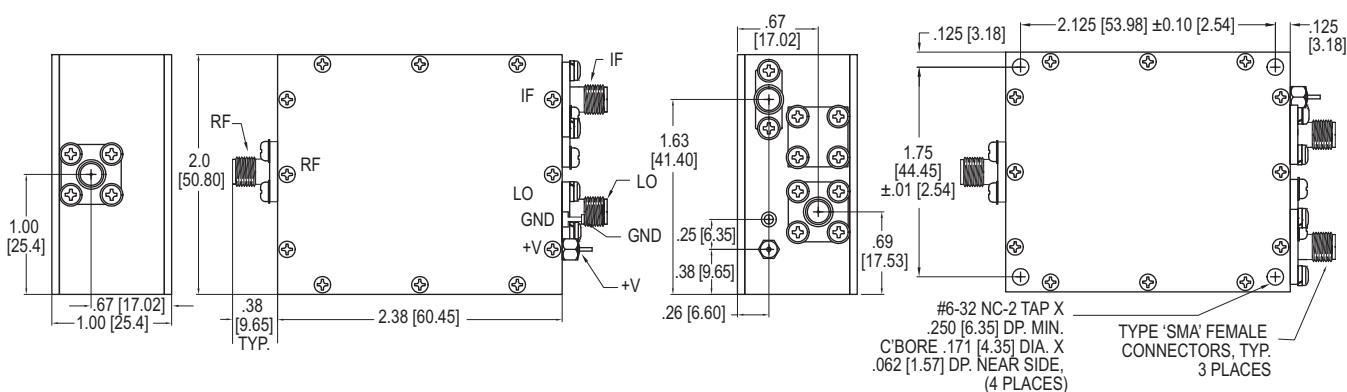


MAXIMUM RATINGS

Specification temperature +25°C
 Operating temperature -54 to +85°C
 Storage temperature -65 to +125°C

NOTE: Test data supplied at 25°C; conversion gain, noise figure, image rejection and LO-to-RF isolation.

OUTLINE DRAWING



NOTE: All dimensions shown in brackets [] are in millimeters.