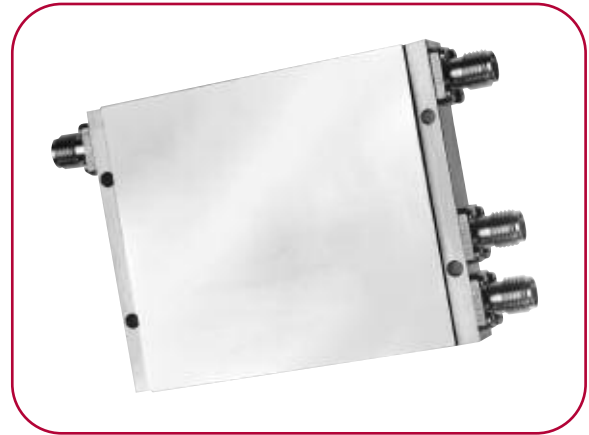


6 TO 18 GHz ENHANCED IMAGE REJECTION MIXERS

MODELS: IRE0618LI1A, IRE0618LI1B AND IRE0618LI1C

FEATURES

- RF/LO coverage 6 to 18 GHz
- LO power range +13 to +15 dBm
- Conversion loss..... 8 dB typical
- Image rejection 35 dB typical
- Packaging..... Hermetically sealed

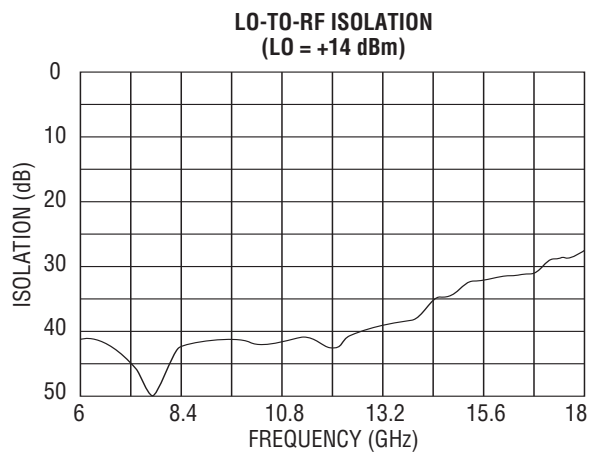
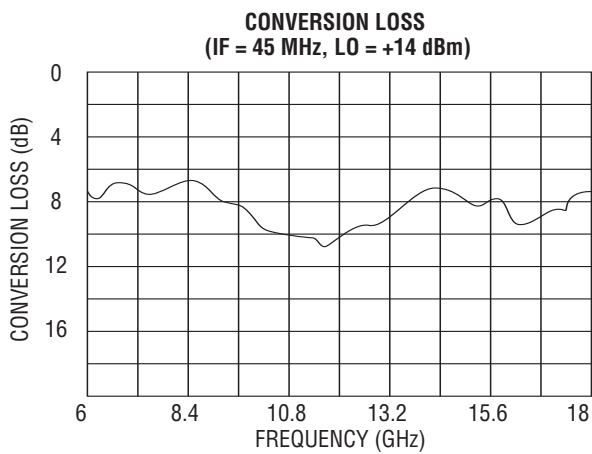
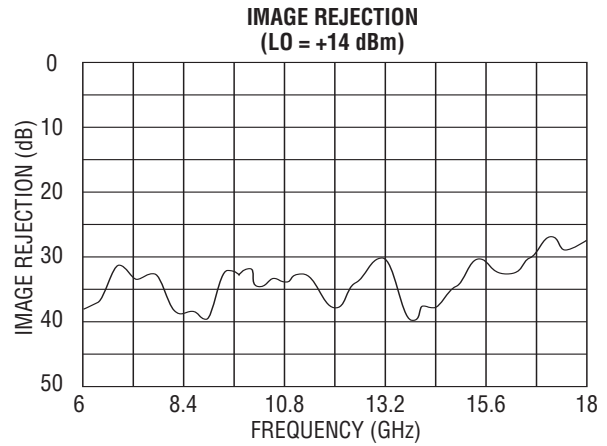
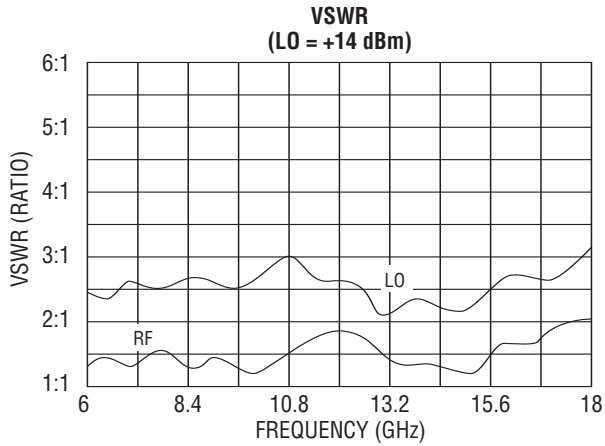


MITEQ's Model IRE0618LI1 enhanced image rejection mixer utilizes a unique architecture developed to provide greater than 30 dB of image rejection across multioctave bands. This design inherently suppresses image frequencies by an additional 15 dB over conventional image rejection mixers without the need for phase and amplitude alignment during production test, thereby allowing for consistent reliable performance throughout production.

ELECTRICAL SPECIFICATIONS

INPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
RF frequency range		GHz	6		18
RF VSWR (RF = -10 dBm)		Ratio		1.5:1	
LO frequency range		GHz	6		18
LO power range	IRE0618LI1	dBm	+13	+15	+16
	IRE0618HI1	dBm	+20	+22	+23
LO VSWR		Ratio		2.5:1	
TRANSFER CHARACTERISTICS	CONDITION	UNITS	MIN.	TYP.	MAX.
Conversion loss (Note 1)		dB		8	10.5
Single-sideband noise figure		dB		8.5	
Image rejection (Note 1)		dB	25	35	
LO-to-RF isolation		dB	24	30	
Input power at 1 dB compression	IRE0618LI1	dBm		+8	
	IRE0618HI1	dBm		+15	
Input two-tone third-order intercept point	IRE0618LI1	dBm		+18	
	IRE0618HI1	dBm		+25	
OUTPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
IF frequency range (image rejection mode)	IRE0618LI1A	MHz	20		40
	IRE0618LI1B	MHz	40		80
	IRE0618LI1C	MHz	100		200
IF VSWR (IF = -10 dBm)		Ratio		1.5:1	

IRE0618LI1B TYPICAL TEST DATA



MAXIMUM RATINGS

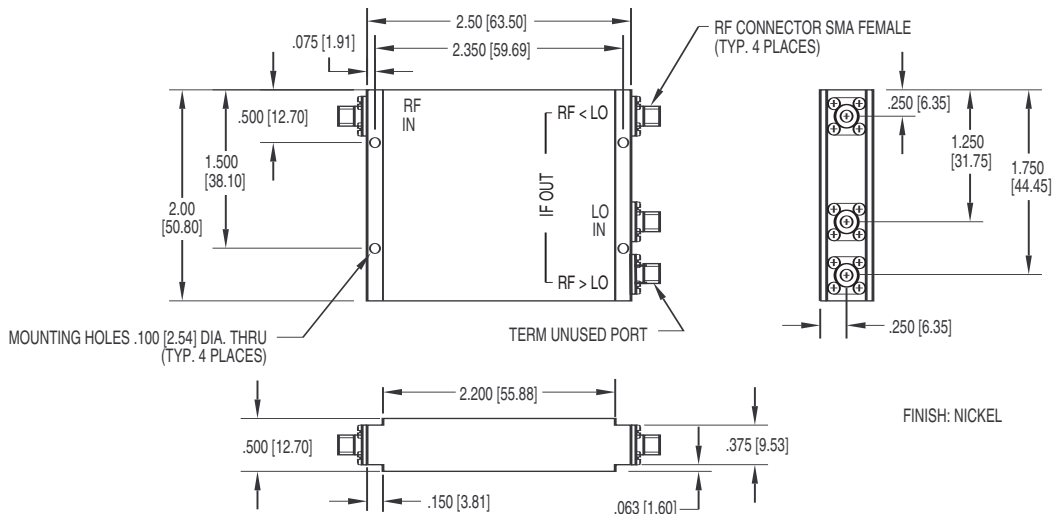
Specification temperature +25°C
 Operating temperature -54 to +85°C
 Storage temperature -65 to +125°C

GENERAL NOTE

- Unit normally aligned for operation with LO > RF. If LO < RF is desired, please specify at time of order. Operation at both modes is a special option with some degradation in performance.

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

OUTLINE DRAWING



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

