2 TO 8 GHz LOW-NOISE RECEIVER FRONT END

MODELS: ARM0208LC2A, ARM0208LC2B AND ARM0208LC2C

FEATURES

- **RF/LO frequency..... 2 to 8 GHz**
- **Conversion gain ..... 30 dB typical**
- **Noise figure..... 2 dB typical**



MITEQ's Model AR Series offers state-of-the-art low-noise amplifiers integrated with our ultra-small image rejection mixers to provide a complete receiver front-end assembly. This device comes in a nonhermetic housing, however a hermetically-sealed housing is available for extreme environmental conditions.

ELECTRICAL SPECIFICATIONS

INPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
RF frequency range		GHz	2		8
RF VSWR (RF = -10 dBm, LO = +10 dBm)		Ratio		2.5:1	
LO frequency range		GHz	2		8
LO power range		dBm	+10		+13
LO VSWR (LO = +10 dBm)		Ratio		2.5:1	
DC power	+15 VDC	mA		150	
TRANSFER CHARACTERISTICS	**CONDITION**	**UNITS**	**MIN.**	**TYP.**	**MAX.**
Conversion gain (Note 1)		dB	27	30	
Single-sideband noise figure at 25°C	dB		2	2.2	
Image rejection (Note 1)		dB	18	20	
LO-to-RF isolation		dB	40		
LO-to-IF isolation		dB		25	
RF-to-IF isolation		dB		25	
Output power at 1 dB compression		dBm		+6	
Output two-tone third-order intercept point		dBm		+16	
OUTPUT PARAMETERS	**CONDITION**	**UNITS**	**MIN.**	**TYP.**	**MAX.**
IF frequency range	ARM0208LC2A ARM0208LC2B ARM0208LC2C	MHz MHz MHz	20 40 100		40 80 200
IF VSWR (IF = -10 dBm, LO = +10 dBm)		Ratio		2:1	

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ARM0208LC2C TYPICAL TEST DATA

NOISE FIGURE
(IF = 100 MHz, LO = +10 dBm)

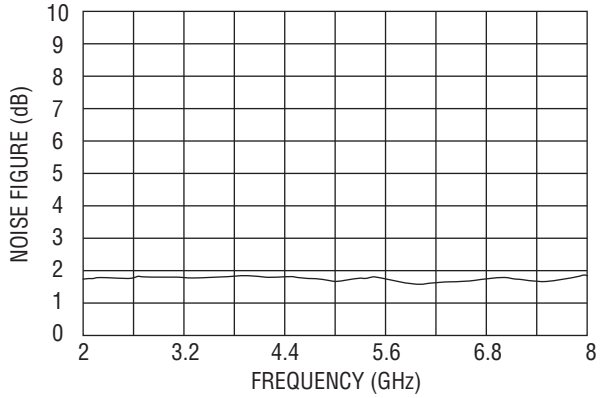
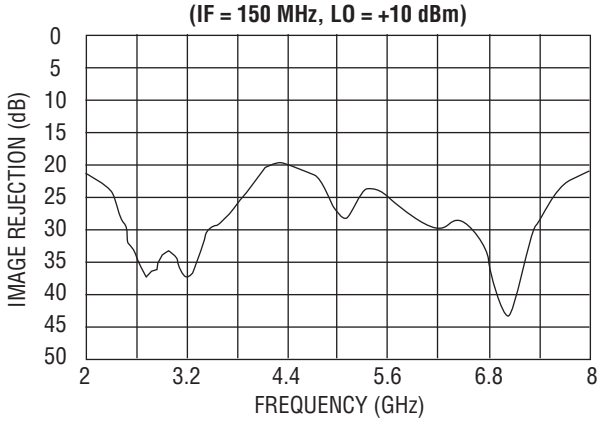
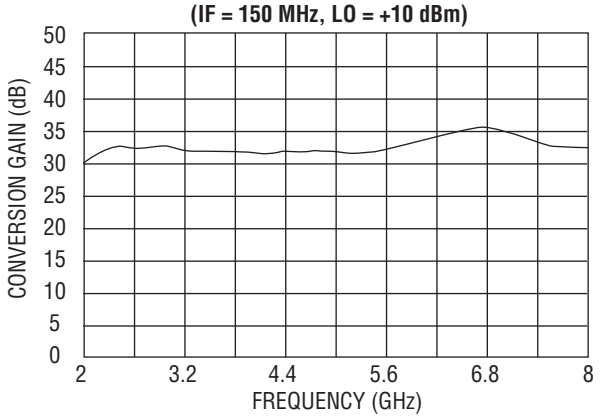


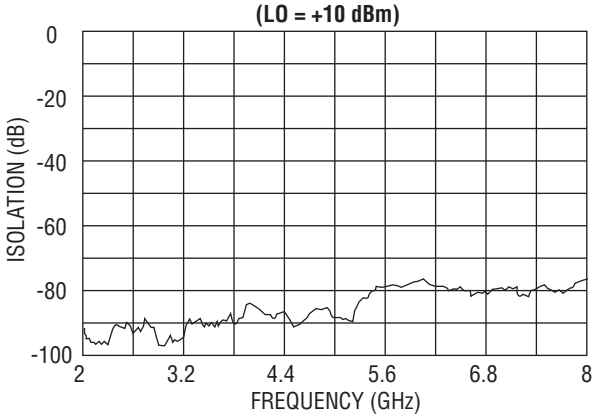
IMAGE REJECTION
(IF = 150 MHz, LO = +10 dBm)



CONVERSION GAIN
(IF = 150 MHz, LO = +10 dBm)



LO-TO-RF ISOLATION
(LO = +10 dBm)



MAXIMUM RATINGS

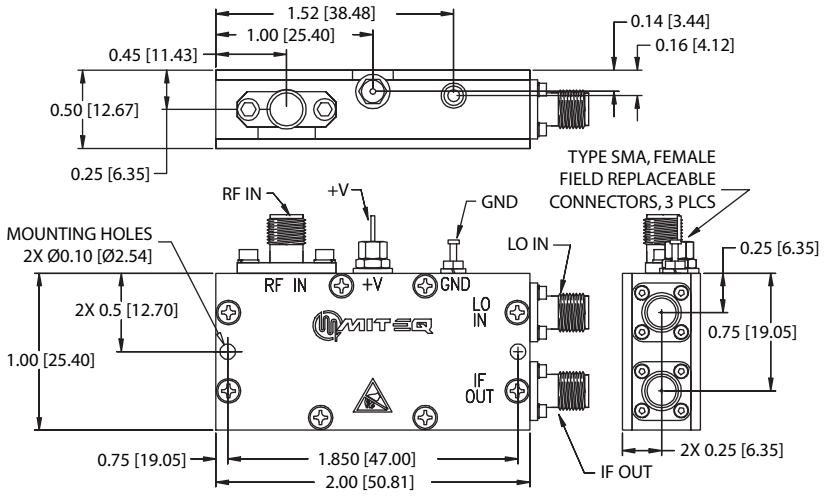
Specifications taken at ..... +25°C
Operating temperature ..... -54 to +85°C
Storage temperature ..... -65 to +125°C

GENERAL NOTE

1. Unit aligned for RF > LO conversion.

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

OUTLINE DRAWING



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

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