

## 8 TO 12 GHz LOW-NOISE RECEIVER FRONT ENDS

### MODELS: ARM0812LC2A, ARM0812LC2B AND ARM0812LC2C

#### FEATURES

- RF/LO coverage ..... 8 to 12 GHz
- Conversion gain ..... 30 dB typical
- Noise figure ..... 2 dB typical

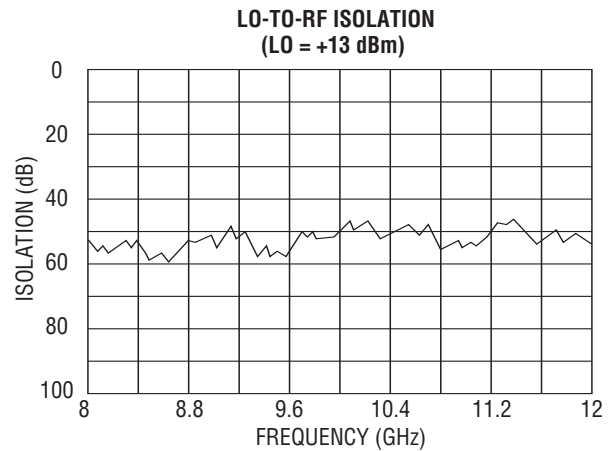
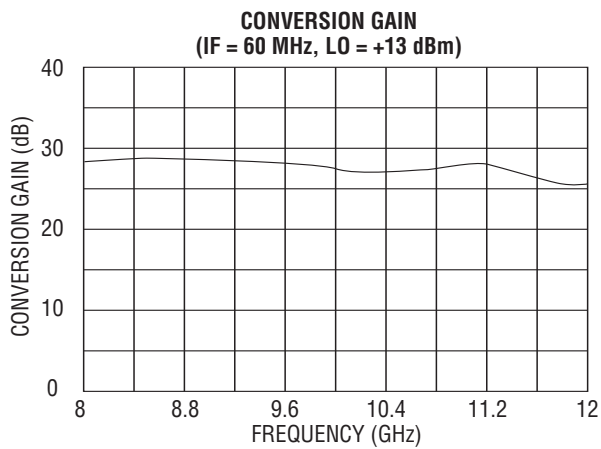
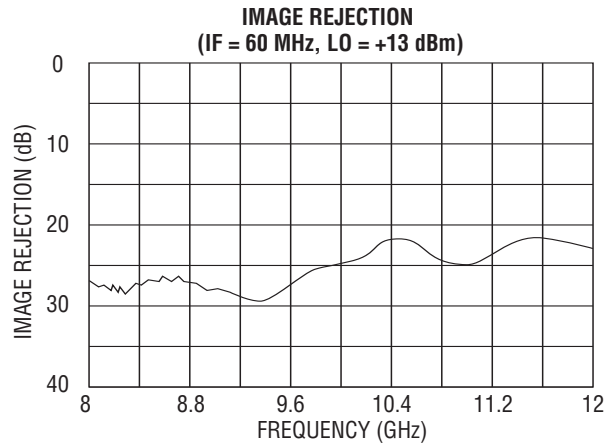
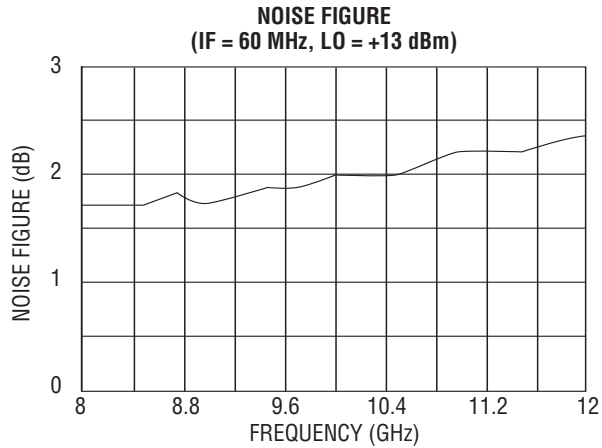


MITEQ's Model AR Series offers state-of-the-art low-noise amplifiers integrated with our ultra-small image rejection mixers to provide a complete receiver front-end assembly. This device comes in a nonhermetic housing, however a hermetically-sealed housing is available for extreme environmental conditions.

#### ELECTRICAL SPECIFICATIONS

INPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
RF frequency range		GHz	8		12
RF VSWR (RF = -10 dBm, LO = +13 dBm)		Ratio		2.5:1	
LO frequency range		GHz	8		12
LO power range		dBm	+10		+13
LO VSWR (LO = +13 dBm)		Ratio		2.5:1	
DC power	+15 VDC	mA		150	
	-5 VDC	mA		25	
TRANSFER CHARACTERISTICS	CONDITION	UNITS	MIN.	TYP.	MAX.
Conversion gain (Note 1)		dB	27	30	
Single-sideband noise figure at 25°C		dB		2	2.5
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	ARM0812LC2A	MHz	20		40
	ARM0812LC2B	MHz	40		80
	ARM0812LC2C	MHz	100		200
IF VSWR (IF = -10 dBm, LO = +13 dBm)		Ratio		2:1	

# ARM0812LC2B TYPICAL TEST DATA



## MAXIMUM RATINGS

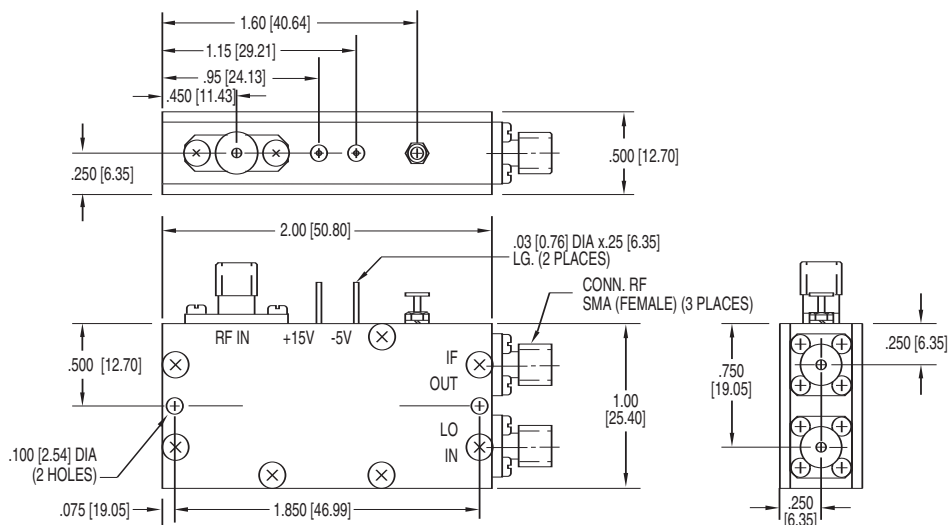
Specification temperature .....	+25°C
Operating temperature .....	-54 to +85°C
Storage temperature .....	-65 to +125°C

## GENERAL NOTE

1. Unit aligned for RF > LO conversion.

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

## OUTLINE DRAWING



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

