

2 TO 18 GHz MIXER/IF AMPLIFIER

MODEL: DA0218LR5

FEATURES

- Double-balanced mixer with integrated IF amplifier
- RF/LO coverage 2 to 18 GHz
- IF operation 10 to 250 MHz
- LO power range +10 to +13 dBm
- Packaging Hermetically sealed



MITEQ's DA Series combines our double-balanced mixer with a low noise IF amplifier to provide an integrated converter module. This design is particularly well suited to broadband downconverter receiver applications such as ESM and ELINT systems or test equipment applications requiring flat RF to IF amplitude and phase characteristics (e.g., FMCW or narrow pulse systems).

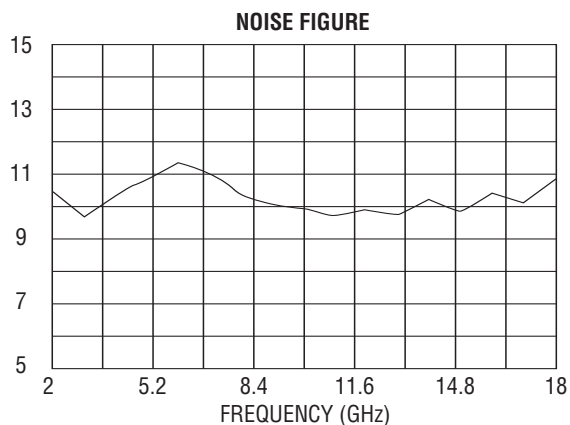
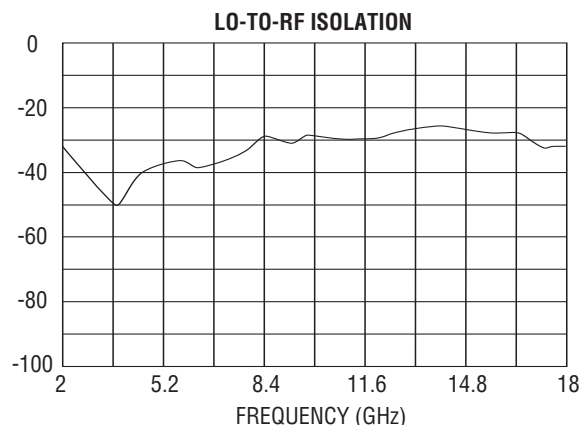
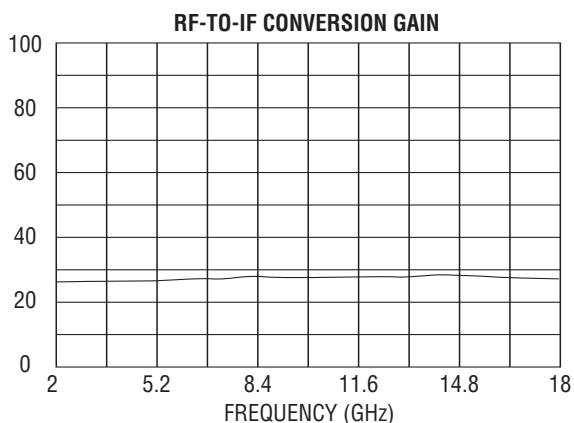
ELECTRICAL SPECIFICATIONS

INPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
RF frequency range		GHz	2		18
RF VSWR	50 ohm reference	Ratio		2.5:1	
LO frequency range		GHz	2		18
LO power range		dBm	+10		+13
LO VSWR	50 ohm reference	Ratio		2.5:1	
DC bias	+12 volts	mA		50	
TRANSFER CHARACTERISTICS	CONDITION	UNITS	MIN.	TYP.	MAX.
Conversion gain		dB	20	23	
Single-sideband noise figure		dB		10	
LO-to-RF isolation		dB	20	9.5	
LO-to-IF isolation		dB		20	
RF-to-IF isolation		dB		25	
Output power at 1 dB compression		dBm	+5		
OUTPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
IF frequency range		MHz	10		250
IF VSWR	50 ohm reference	Ratio		2:1	

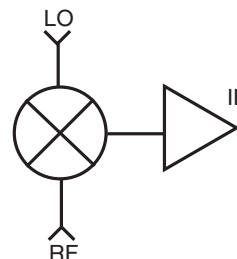


DA0218LR5 TYPICAL TEST DATA

Test at 100 MHz IF with an LO of +10 dBm



BLOCK DIAGRAM

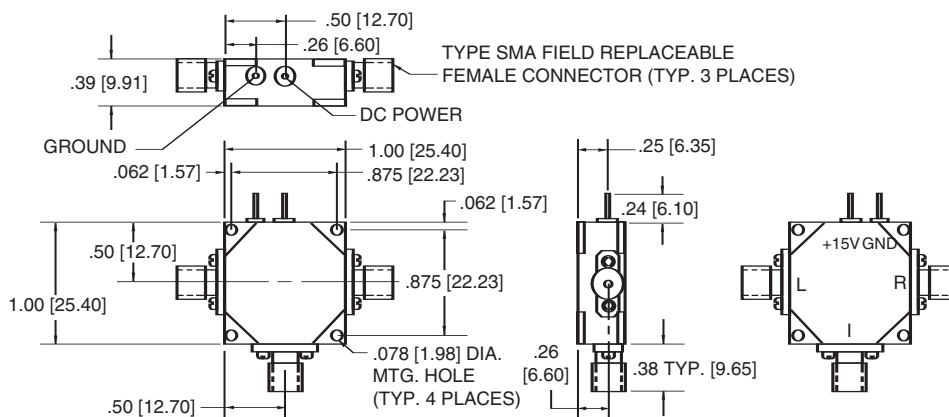


MAXIMUM RATINGS

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, LO-to-RF isolation, noise figure and bias.

OUTLINE DRAWING



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

