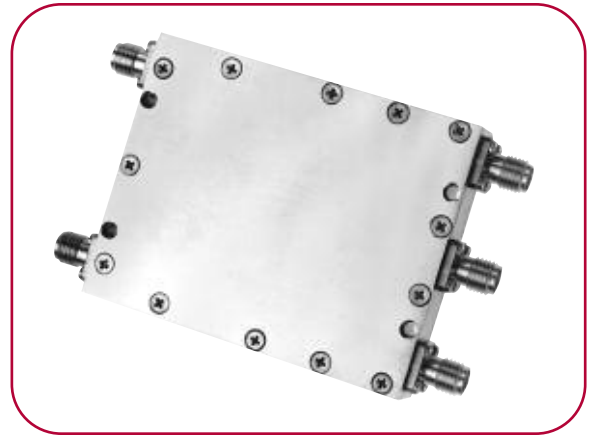


2 TO 26 GHz IMAGE REJECTION OR I/Q MIXERS

MODELS: IRM0226LC1A, IRM0226LC1B, IRM0226LC1C AND IRM0226LC1Q

FEATURES

- RF/LO coverage 2 to 26 GHz
- IF operation DC to 0.5 GHz
- Conversion loss 10 dB typical
- Image rejection..... 18 dB typical



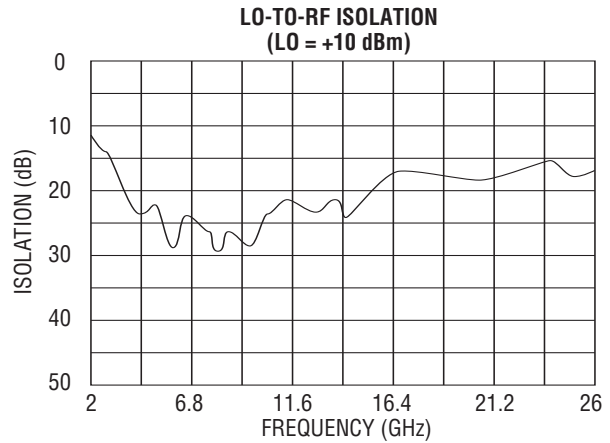
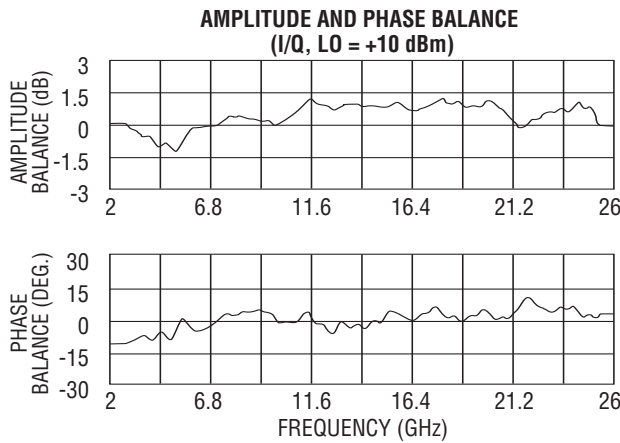
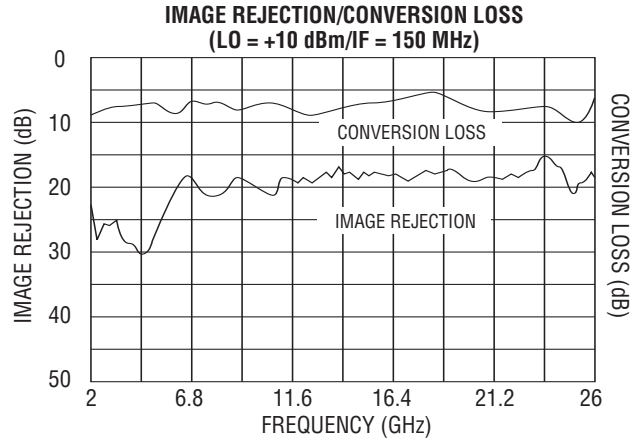
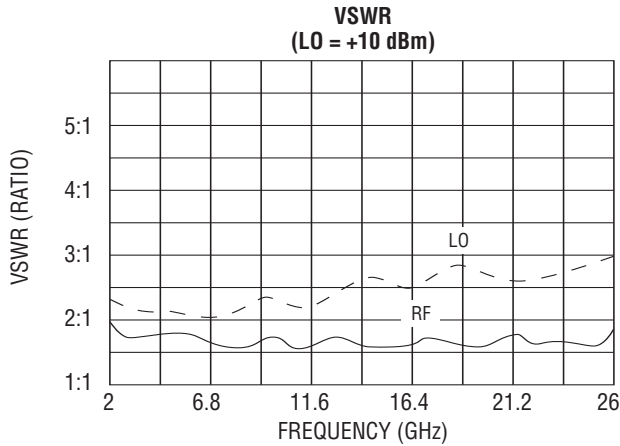
ELECTRICAL SPECIFICATIONS

INPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.	
RF frequency range		GHz	2		26	
RF VSWR (RF = -10 dBm)		Ratio		3.5:1		
LO frequency range		GHz	2		26	
LO power range	IRM0226LC1	dBm	+10	+12	+13	
	IRM0226MC1	dBm	+13	+15	+16	
	IRM0226HC1	dBm	+17	+18	+20	
LO VSWR		Ratio		2.5:1		
TRANSFER CHARACTERISTICS	CONDITION	UNITS	MIN.	TYP.	MAX.	
Conversion loss (Note 1)	RF > LO	dBm		10	14.5	
	IRM0226LC1Q	dB		13	17.5	
Single-sideband noise figure		dB		15		
Image rejection (Note 1)	RF < LO	dB	15	18		
LO-to-RF isolation		dB	15	18		
LO-to-IF isolation		dB		20		
Input power at 1 dB compression	IRM0226LC1	dBm		+6		
	IRM0226MC1	dBm		+10		
	IRM0226HC1	dBm		+15		
Input two-tone third-order intercept point	IRM0226LC1	dBm		+16		
	IRM0226MC1	dBm		+20		
	IRM0226HC1	dBm		+25		
Amplitude balance	IRM0226LC1Q	dB			±1.5	
Phase balance	IRM0226LC1Q	Degrees			±15	
Truth table	IRM0226LC1Q			Port	RF < LO	RF > LO
				I	0	-90
				Q	-90	0
OUTPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.	
IF frequency (image rejection mode)	IRM0226LC1A	MHz	20		40	
	IRM0226LC1B	MHz	40		80	
	IRM0226LC1C	MHz	100		200	
IF frequency (QIFM, I/Q demodulator mode)	IRM0226LC1Q	MHz	DC		500	
IF VSWR (IF = -10 dBm)		Ratio		1.5:1		

IMAGE REJECTION MIXER PRODUCTS



IRM0226LC1C TYPICAL TEST DATA



MAXIMUM RATINGS

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

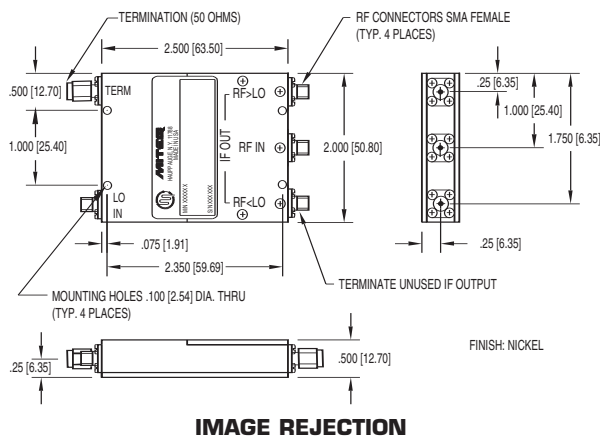
GENERAL NOTES

- Standard catalog unit aligned and tested for guaranteed RF > LO performance. RF < LO guaranteed performance is available, please contact MITEQ.
- For upconverter applications, please order Model Number SSM0226 Series. See Modulator section of catalog.

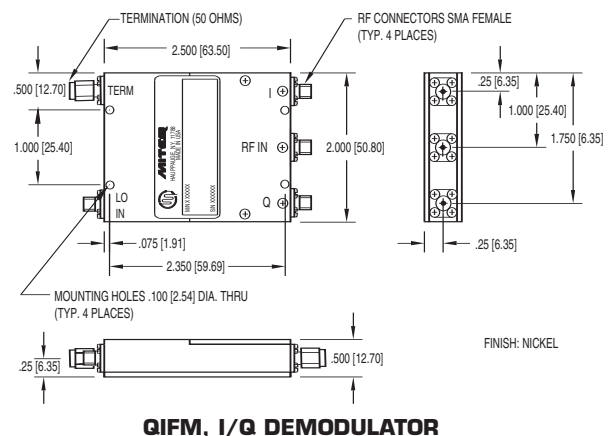
NOTE: Test data supplied at 25°C; conversion loss, LO-to-RF isolation, image rejection (IF Options A, B and C), phase and amplitude balance (IF Option Q).

OUTLINE DRAWINGS

IRM0226LC1A, B and C



IRM0226LC1Q



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

