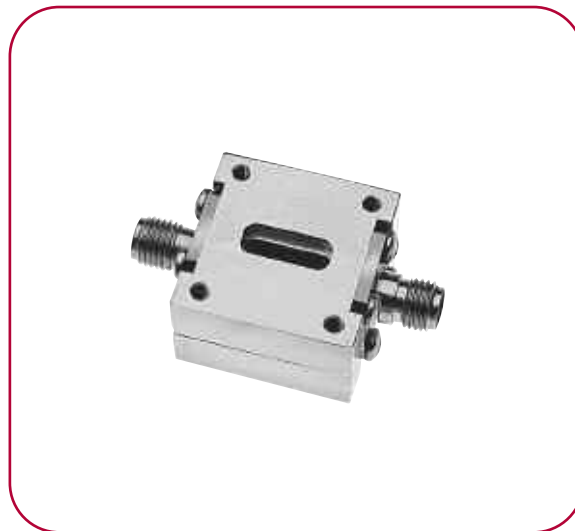


22 TO 26 GHz SINGLE-BALANCED MIXER

MODEL: SBW2226LG1

FEATURES

- WR 42 waveguide RF input
- Low conversion loss..... 5.5 dB typical
- Usable with 1/3 LO frequency
- Field replaceable diodes
- Coaxial LO/IF DC to 2 GHz



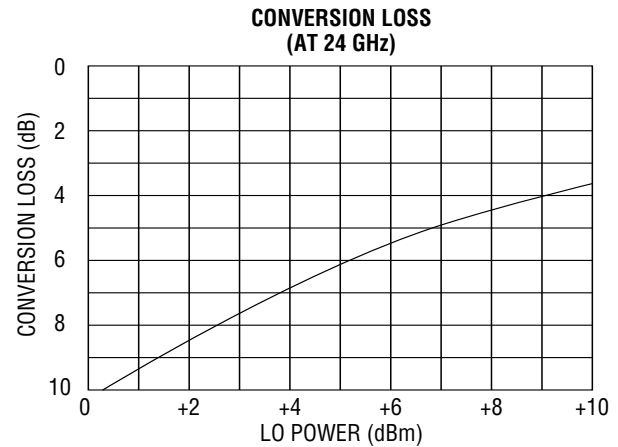
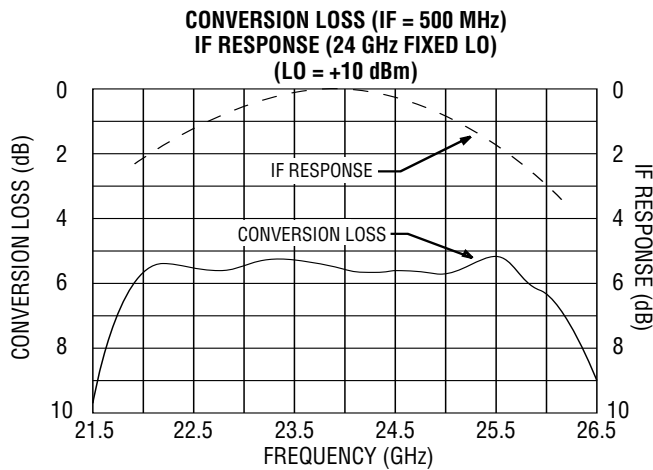
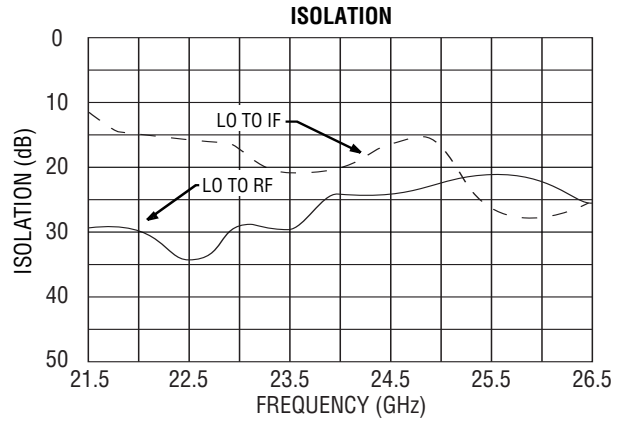
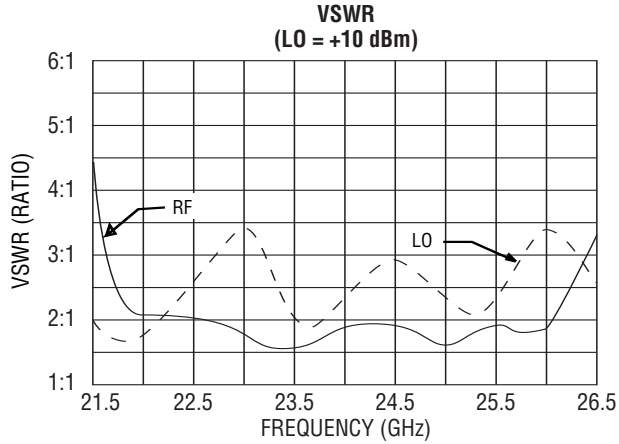
MITEQ's Model SBW2226LG1 is designed for use as an up- or downconverter in popular communication and radar bands. The innovative architecture provides low conversion loss and VSWR at modest LO power. This mixer is also available with high-level diodes yielding greater IP³ at proportionally more LO power.

ELECTRICAL SPECIFICATIONS

INPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
RF frequency range		GHz	22		26
RF VSWR (RF = -10 dBm, LO = +10 dBm)		Ratio		1.5:1	
LO frequency range	Fundamental LO = 1/3 freq.	GHz	22		26
		GHz	7.5		8.5
LO power range		dBm	+7		+10
LO VSWR (LO = +10 dBm)	22 to 26 GHz	Ratio		2.5:1	
TRANSFER CHARACTERISTICS	CONDITION	UNITS	MIN.	TYP.	MAX.
Conversion loss (IF = 100 MHz, LO = +10 dBm)	Fundamental LO = 1/3 freq.	dB		5.5	7.5
		dB		15.5	
Single-sideband noise figure	Fundamental LO	dB		6	
LO-to-RF isolation		dB	20	30	
LO-to-IF isolation		dB		15	
RF-to-IF isolation		dB		30	
2RF – 2LO isolation (RF = -10 dBm)		dBc		45	
Input power at 1 dB compression	LO = +10 dBm	dBm		0	
Input two-tone third-order intercept point	LO = +10 dBm	dBm	+7	+10	
OUTPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
IF frequency range	-3 dB bandwidth	MHz	DC		2000
IF VSWR (IF = -10 dBm, LO = +10 dBm)		Ratio		1.5:1	



SBW2226LG1 TYPICAL TEST DATA

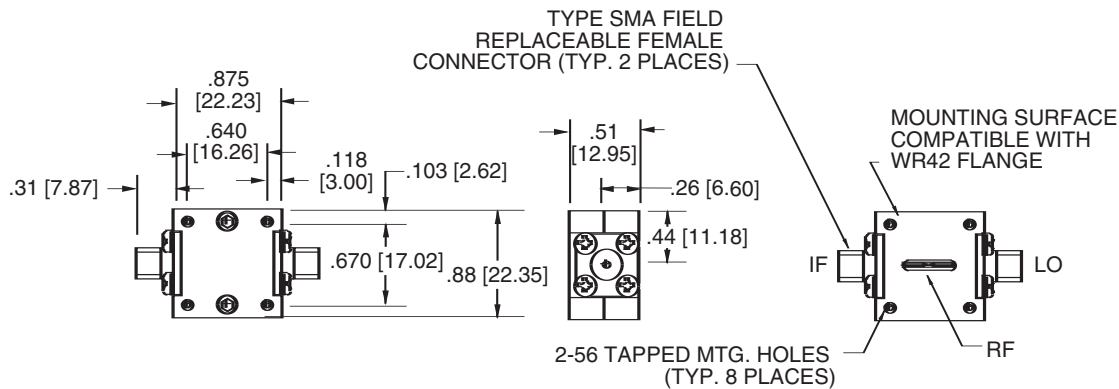


MAXIMUM RATINGS

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

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

OUTLINE DRAWING



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

