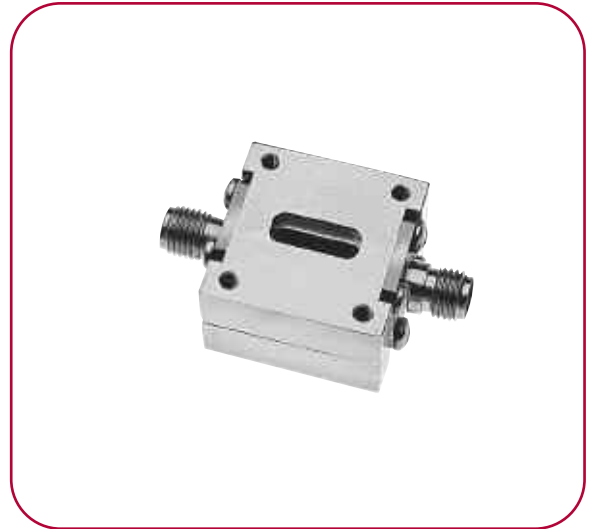


33 TO 37 GHz SINGLE-BALANCED MIXER

MODEL: SBW3337LG2

FEATURES

- WR28 waveguide RF input
- Coaxial LO/IF..... DC to 4 GHz
- Usable with 1/3 LO frequency
- Field replaceable diodes



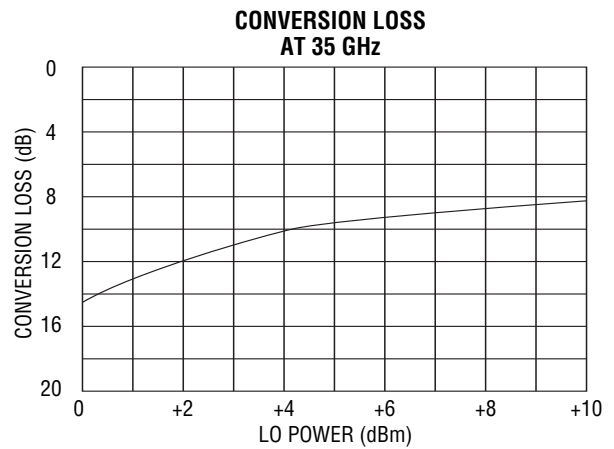
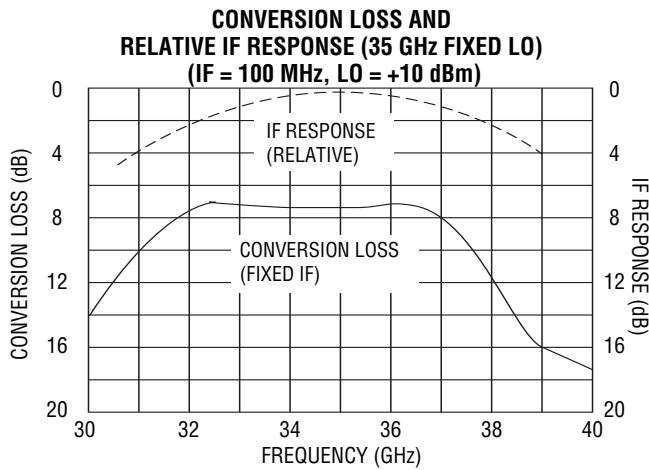
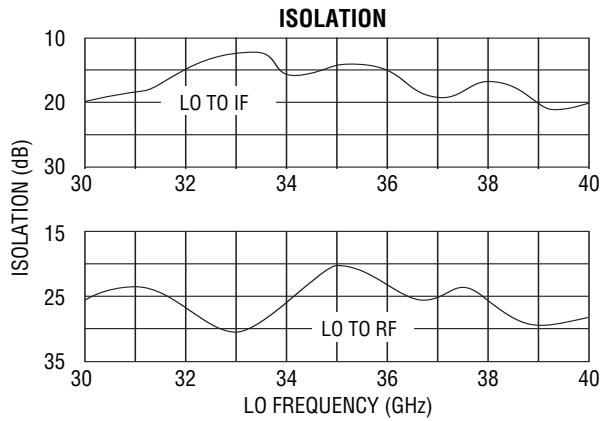
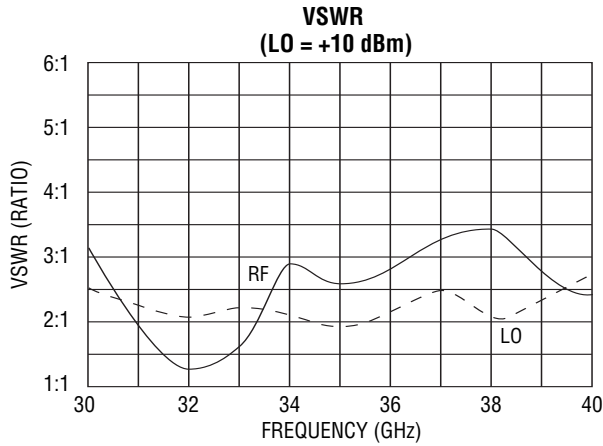
This mixer is designed for waveguide-mounted 35 GHz communication and radar applications. Low-level silicon diodes require small LO power without bias. This mixer is also available with gallium arsenide diodes yielding higher IP³ at proportionally more LO power.

ELECTRICAL SPECIFICATIONS

INPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
RF frequency range		GHz	33		37
RF VSWR (RF = -10 dBm, LO = +10 dBm)		Ratio		2.5:1	
LO frequency range	Fundamental	GHz	33		37
	LO = 1/3 freq.	GHz	10		12.5
LO power range		dBm	+5		+13
LO VSWR (LO = +10 dBm)	33 to 37 GHz	Ratio		2:1	
TRANSFER CHARACTERISTICS	CONDITION	UNITS	MIN.	TYP.	MAX.
Conversion loss (IF = 100 MHz, LO = +10 dBm)	Fundamental	dB		7.5	8.5
	LO = 1/3 freq.	dB		17	
Single-sideband noise figure	Fundamental LO	dB		8	
LO-to-RF isolation		dB	18	25	
LO-to-IF isolation		dB		15	
RF-to-IF isolation		dB		25	
2RF - 2LO isolation (RF = -10 dBm, LO = +10 dBm)		dBc		44	
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	GHz	DC		4
IF VSWR (IF = -10 dBm, LO = +10 dBm)		Ratio		1.5:1	



SBW337LG2 TYPICAL TEST DATA

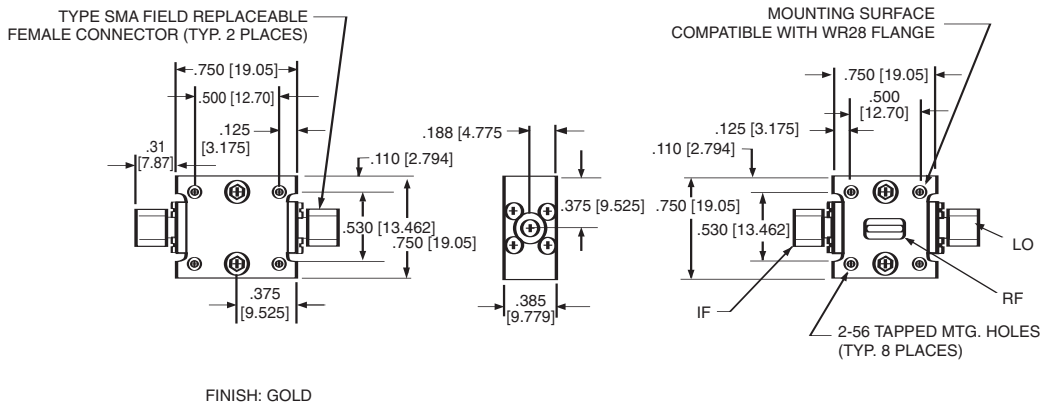


MAXIMUM RATINGS

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.

