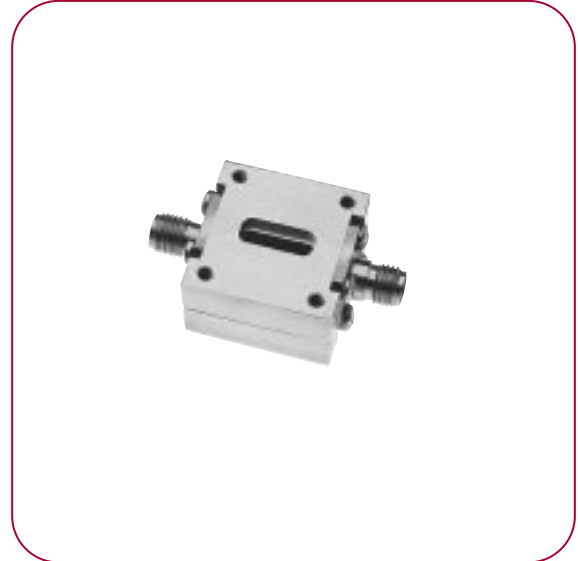


35 TO 39 GHz SINGLE-BALANCED MIXER

MODEL: SBW3539LG2

FEATURES

- WR28 waveguide RF input
- Coaxial LO/IF (DC to 2 GHz)
- Usable with 1/3 LO frequency
- Field replaceable diodes

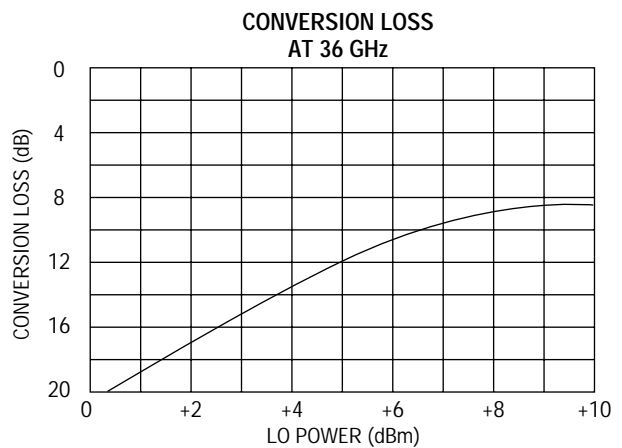
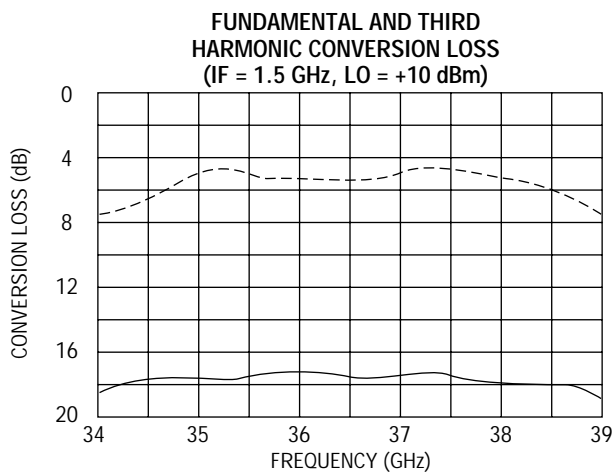
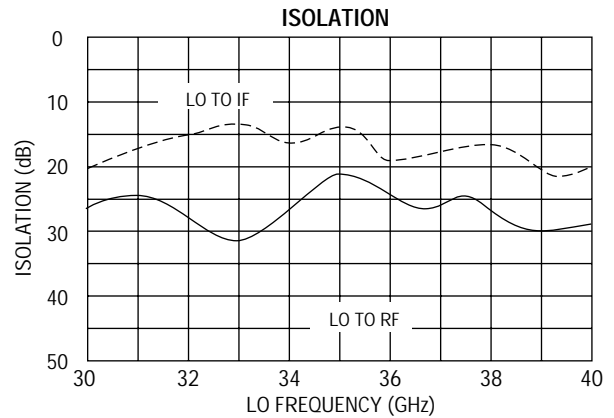
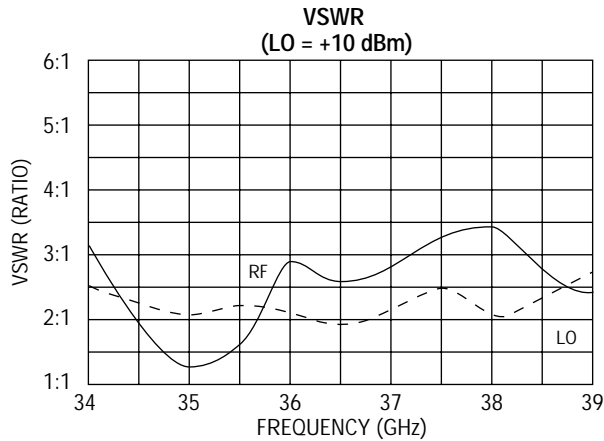


This mixer is designed for waveguide-mounted 35 GHz communication and radar applications. Low-level silicon diodes require small LO power without bias. This mixer is also available with gallium arsenide diodes yielding higher IP³ at proportionally more LO power.

ELECTRICAL SPECIFICATIONS

INPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
RF frequency range		GHz	35		39
RF VSWR (RF = -10 dBm, LO = +10 dBm)		Ratio		2:1	
LO frequency range		GHz	35		39
LO power range		dBm	+5		+10
LO VSWR (LO = +10 dBm)	33 to 37 GHz	Ratio		2.5:1	
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 (RF = -10, 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	

SBW3539LG2 TYPICAL DATA



MAXIMUM RATINGS

Specifications taken at +25°C
 Operating temperature -54 to +85°C
 Storage temperature -65 to +125°C

GENERAL NOTE

1. Replaceable diode/substrate (order part no. 119300).

OUTLINE DRAWING

