

34.5 TO 35.5 GHz LOW-NOISE RECEIVER FRONT END

MODEL: SBWA3435N01R

FEATURES

- RF/LO coverage 34.5 to 35.5 GHz
- IF operation 20 to 200 MHz
- Conversion gain 18 dB maximum
- Image rejection 15 dB minimum

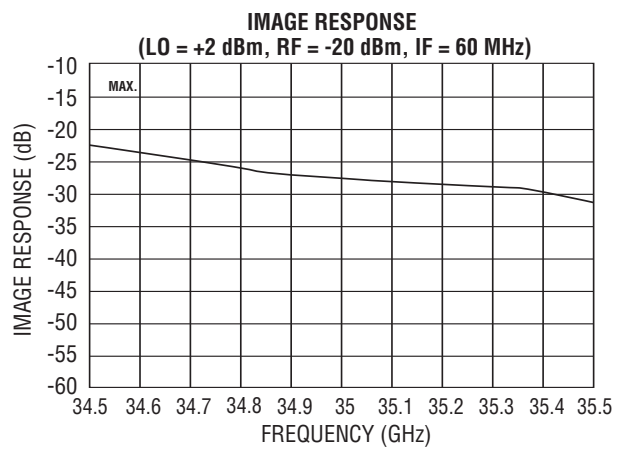
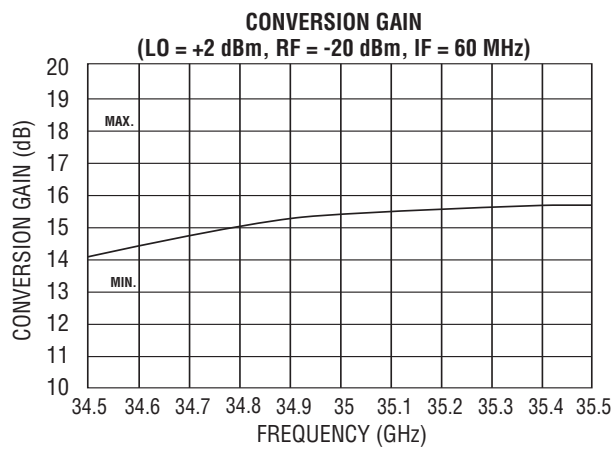
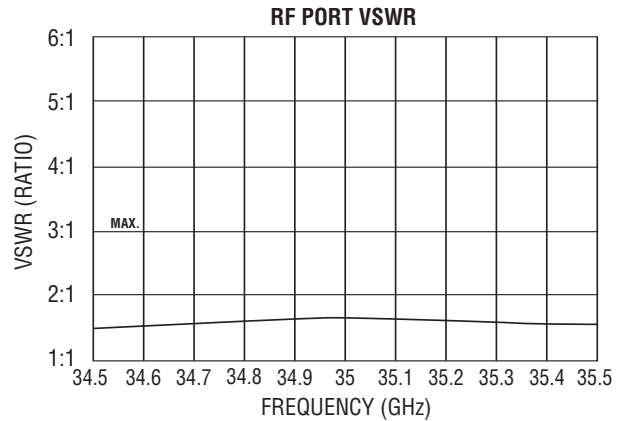
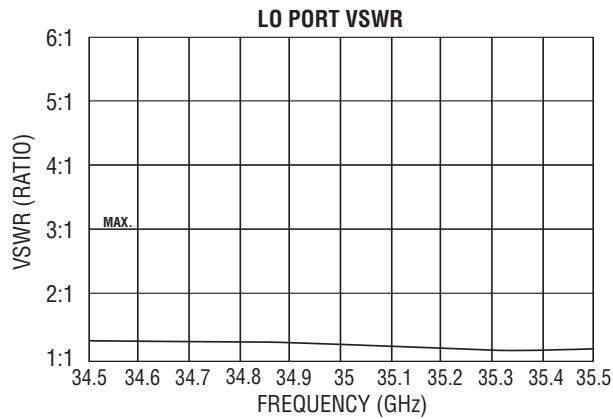
The SBWA3435N01R is an integrated low-noise converter utilizing an image rejection mixer. The internal LO amplifier allows the use of low levels of LO power. The small compact size includes waveguide interfaces on the LO and RF ports.

ELECTRICAL SPECIFICATIONS

INPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
RF frequency range		GHz	34.5		35.5
RF VSWR (RF = -10 dBm)		Ratio		2:1	
Maximum input power	CW	mW			200
	10 ns pulse at PRF of 16 kHz	Watts			2
LO frequency range		GHz	34.5		35.5
LO power range		dBm	+2		+4
LO VSWR		Ratio		2:1	
Bias	+15 volts	mA			350
TRANSFER CHARACTERISTICS	CONDITION	UNITS	MIN.	TYP.	MAX.
Conversion gain		dB	13	16	18
Single-sideband noise figure at 25°C		dB		5.2	6
Image rejection		dB	15	20	
LO-to-RF isolation		dB	20		
LO-to-IF isolation		dB		20	
Input power at 1 dB compression point		dBm	-20	-15	
OUTPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
IF frequency range	SBWA3435N01RA	MHz	20		40
	SBWA3435N01RB	MHz	40		80
	SBWA3435N01RC	MHz	100		200
IF VSWR (IF = -10 dBm)		Ratio		1.5:1	



SBWA3435N01R TYPICAL TEST DATA

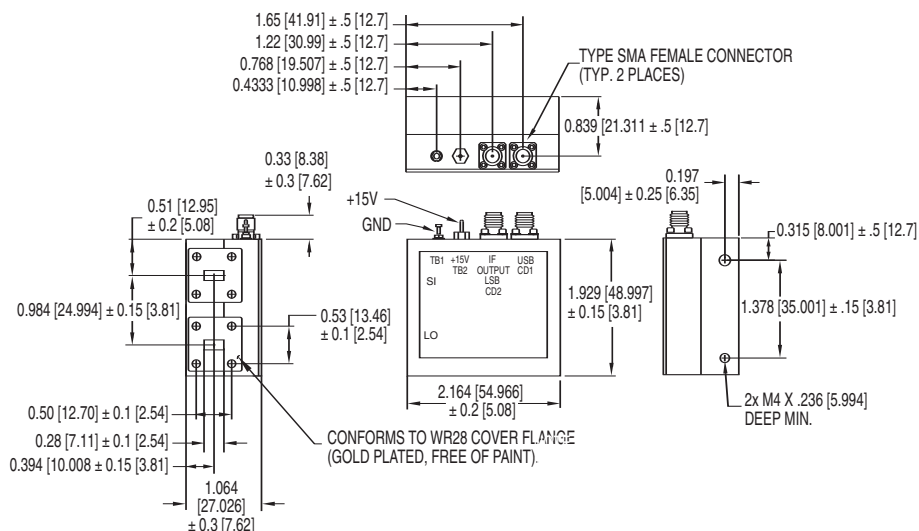


NOTE: Test data supplied at 25°C; conversion gain, LO-to-RF isolation, image rejection.

MAXIMUM RATINGS

Specification temperature +25°C
Operating temperature -55 to +85°C
Storage temperature -65 to +95°C

OUTLINE DRAWING



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

BLOCK DIAGRAM

