

**FEATURES**

RF Frequency: 9 – 12 GHz  
 Input IP3: +23 dBm  
 Sideband Suppression: -35 dBc  
 LO Leakage: -42 dBm  
 LO Power: +15 dBm  
 Size: 1.5" X 1.5" [3.8 cm X 3.8 cm]

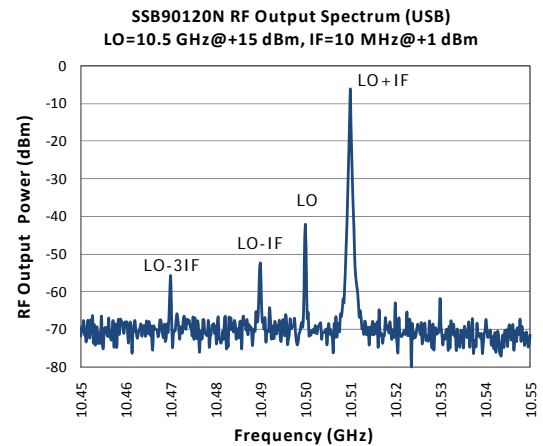
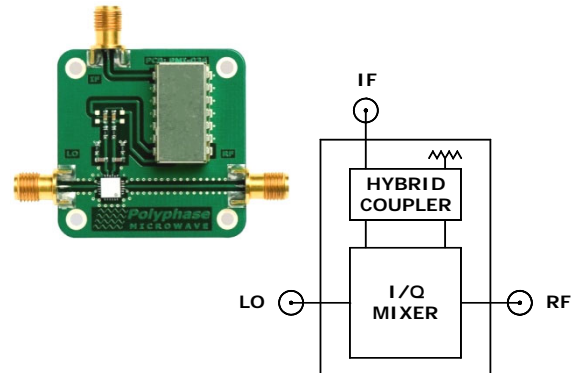
**DESCRIPTION**

The SSB90120N is a single-sideband modulator optimized for linear modulation of an RF carrier (LO). The IF input is upconverted to the desired RF sideband while the unwanted RF sideband is internally suppressed.

The SSB90120N maintains excellent sideband suppression across multi-octave IF frequency bandwidths. In-stock IF bands include:

- 10 MHz to 50 MHz
- 30 MHz to 90 MHz

Other common IF bands are available. Please specify desired sideband (LSB/USB) and IF band when ordering.



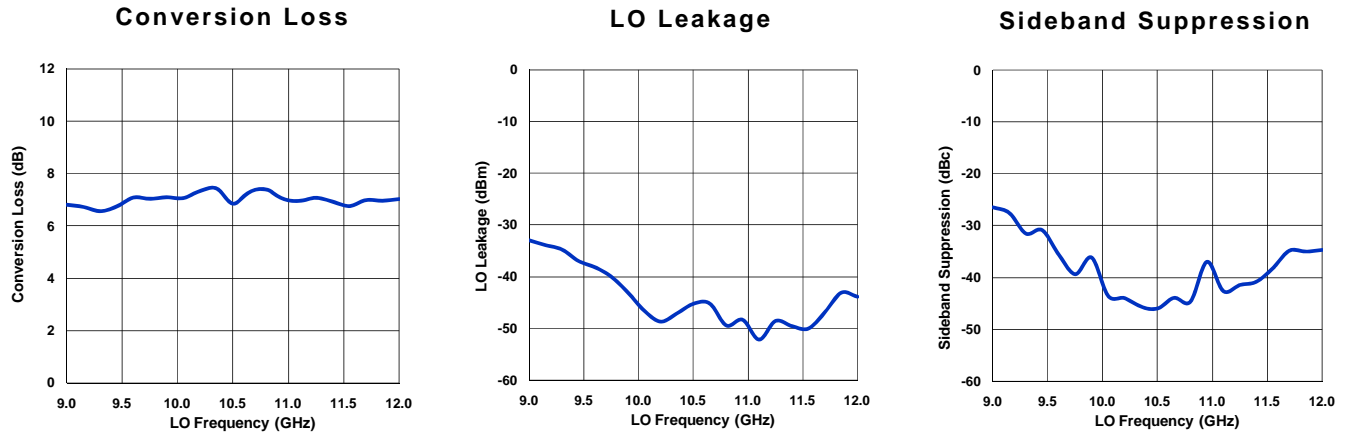
**ELECTRICAL SPECIFICATIONS**

Test Conditions: +25°C, RF Input (LO) = +15 dBm, IF input = 0 dBm @ 30 MHz unless otherwise noted.

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
RF Frequency Range		9		12	GHz
RF Input (LO) Power		+14	+15	+17	dBm
RF Input (LO) VSWR			1.4:1		Ratio
RF Output VSWR			3.0:1		Ratio
IF Input Impedance			50		$\Omega$
Conversion Loss			7	8.5	dB
Input IP3	2-Tone, $\Delta f = 1$ MHz		+23		dBm
Input P1dB			+14		dBm
RF Carrier (LO) Leakage at RF Output	No IF input		-42	-30	dBm
RF-IF Isolation	No IF input		55		dB
Sideband Suppression	Over IF Frequency Band		-35	-20	dBc
Operating Temperature Range		-40		+85	$^{\circ}$ C
RF/IF Input Power w/o Damage				+20	dBm

## TYPICAL PERFORMANCE CHARACTERISTICS

Standard Test Conditions: +25°C, RF (LO) Input = +15 dBm, RF Input = 0 dBm @ LO+30 MHz.



## DIMENSION DRAWING

