

FEATURES

RF Frequency: 7 – 10 GHz
 Input IP3: +23 dBm
 Sideband Suppression: -40 dBc
 LO Leakage: -40 dBm
 LO Power: +15 dBm
 Size: 1.5" X 1.5" [3.8 cm X 3.8 cm]

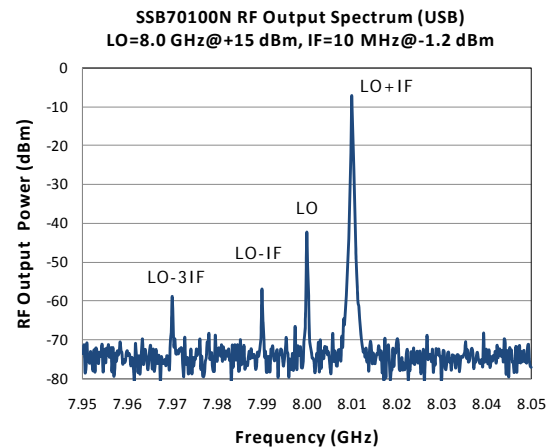
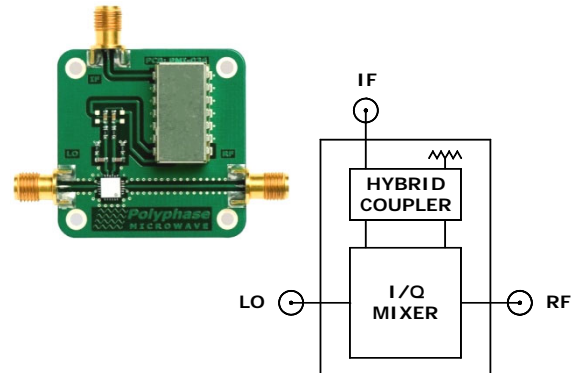
DESCRIPTION

The SSB70100N 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 SSB70100N 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.



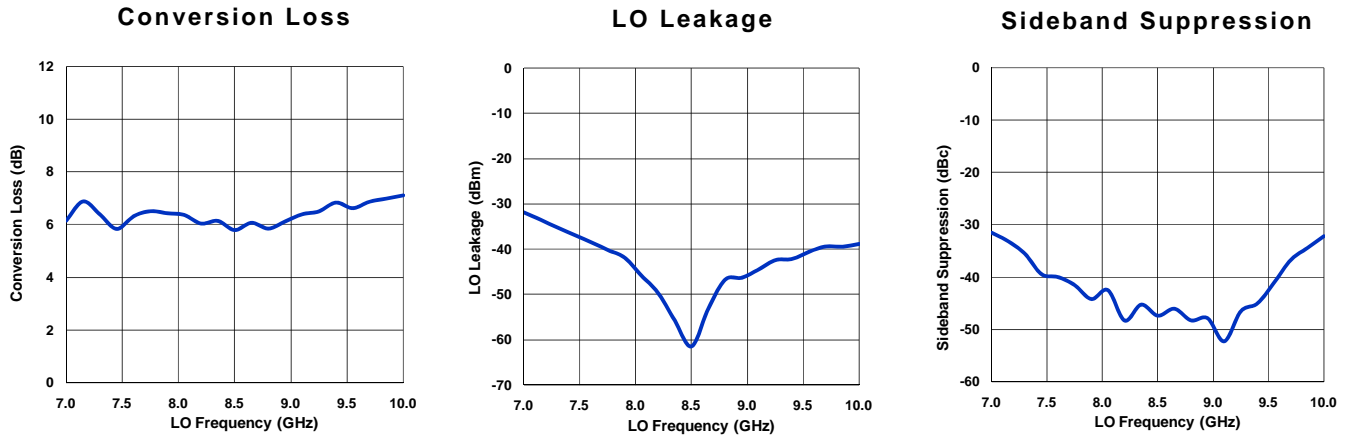
ELECTRICAL SPECIFICATIONS

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		7		10	GHz
RF Input (LO) Power		+14	+15	+17	dBm
RF Input (LO) VSWR			1.4:1		Ratio
RF Output VSWR			2.0:1		Ratio
IF Input Impedance			50		Ω
Conversion Loss			7	8.5	dB
Input IP3	2-Tone, Δf = 1 MHz		+23		dBm
Input P1dB			+12		dBm
RF Carrier (LO) Leakage at RF Output	No IF input		-40	-27	dBm
RF-IF Isolation	No IF input		55		dB
Sideband Suppression	Over IF Frequency Band		-40	-26	dBc
Operating Temperature Range		-40		+85	°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

