



The modern signal generator has evolved into a complex, expensive instrument. To provide an alternative for many test scenarios in which only a high-quality CW source is required, dBm introduces the SSG synthesized CW signal generator. This instrument focuses on the basics: simplicity, connectivity, and excellent RF performance in a small and low cost solution.

Sharing resources within a lab or facility often means carrying test equipment around a crowded lab. The SSG is so small and light it can be held with one hand, yet it has enough mass to stay planted on the workbench with heavy coax cables attached to it.

The SSG gives up little or nothing in terms of performance to other generators which can be more than twice the price. Phase noise performance is excellent, and switching speed is much faster than YIG based signal generators.

Front panel control of the frequency and amplitude is achieved with a combination of buttons and a rotary knob. Step size is determined by positioning the cursor at the desired digit and turning the knob, or an arbitrary step size can be set independently for the frequency and amplitude.

The SSG can function within an automated test system, since it can be remotely controlled via IEEE-488.2, RS-232, and 10/100BaseT Ethernet. This combined with its fast settling time makes it a good choice for high-volume production environments.

## Applications

- ◆ A laboratory workhorse
- ◆ Programmable LO for frequency converters
- ◆ Frequency hopping source
- ◆ RF device characterization
- ◆ Tracking generator source

## Features

- ◆ Low noise (-103 dBc/Hz 1 kHz offset @ 1GHz)
- ◆ Fast switching (<2msec typ.)
- ◆ Small and lightweight (10" x 10" x 3")
- ◆ Non-volatile memory for storage/recall of instrument settings
- ◆ IEEE-488.2, LAN, and RS-232 interfaces standard

## Options

- ◆ Fast switching speed (200 usec)
- ◆ File driven hopping/swept frequency mode

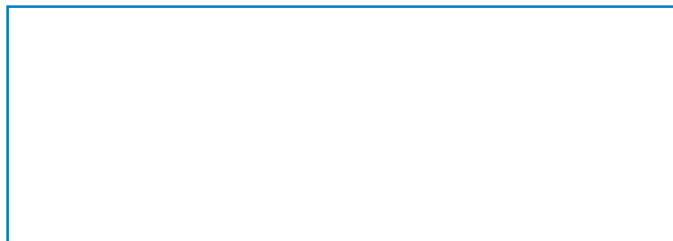
# Specifications

<b>Frequency Range</b>	10 MHz to 4000 MHz	<b>Environmental</b>	
<b>Frequency Resolution</b>	10 Hz up to 1999.99999 MHz 20 Hz for 2000 - 4000 MHz	Operating Temperature	0°C to +35°C
<b>Frequency Accuracy</b>	+/- 2 PPM internal reference or per external reference	Shock and Vibration	MIL-PRF 28800F Type III Class 4
<b>Frequency update rate</b>	2 ms via LAN or GPIB	EMI	MIL-STD 461B RE02 Part 2 and CISPR II
<b>Settling time</b>		<b>Control and interface</b>	
Standard	2 msec typical <12 msec at band crossings (1 GHz, 2 GHz)	Local interface	Front panel keypad & display
Opt HS	200 usec for steps less than 10 MHz	Remote interface	IEEE-488.2, LAN, RS-232
<b>Spectral Purity</b>		<b>Primary power</b>	
Phase Noise	at 1 GHz - 55 dBc @ 10 Hz -81 dBc @ 100 Hz -103 dBc @ 1 kHz -107 dBc @ 10 kHz -108 dBc @ 100 kHz -128 dBc @ 1 MHz	Voltage	90-264 VAC autoranging
Opt HS	Degrade 10 dB at offsets less than 100 kHz	Frequency	48-66 Hz
Spurious	<-50 dBc	Consumption	40 VA, maximum
Output noise floor	<-145 dBm/Hz	Fuse	1A, slow-blow
2nd Harmonic	<-20 dBc	<b>Physical</b>	
3rd Harmonic	<-30 dBc	Ambient operating temp	0° to 35° C
<b>Output Power</b>		Dimensions	10" W x 2.75" H x 10" D
Power Range	+10 dBm to -30 dBm		
Power Resolution	0.1 dB		
Power Accuracy	+/- 0.5 dB -20 to +10 dBm		
Power Accuracy	+/- 0.75 dB -< -20 dbm		
<b>Impedance</b>	50 ohms		
<b>VSWR</b>	2:1 maximum into 50 ohms		
<b>External Reference</b>	10 MHz sine, 0 dBm +/- 3 dB		

## Ordering Information

Model No.	Description
SSG - 10/4000	10MHz to 4000MHz
Options	Description
SSG optHS	200 usec switching speed
SSG opt DYN	Dynamic hopping mode

### Distributor



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