specs

SSG Series

Synthesized CW Signal Generator

RF Test Equipment for Wireless Communications

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 (< 200 usec 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

- File driven hopping/swept frequency mode

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Specifications

Frequency Range	10 MHz to 4000 MHz
Frequency Resolution	10 Hz up to 1999.99999 MHz 20 Hz for 2000 - 4000 MHz
Frequency Accuracy	+/- 2 PPM internal reference or per external reference
Frequency update rate	2 ms via LAN or GPIB
Settling time	
Standard:	2oo msec typical
Spectral Purity	
Phase Noise:	at 1 GHz - 58 dBc @ 10 Hz -81 dBc @ 100 Hz -103 dBc @ 1 kHz -107 dBc @ 10 kHz -108 dBc @ 100 kHz -128 dBc @ 1 MHz
Spurious:	<-50 dBc
Output noise floor:	<-145 dBm/Hz
2nd Harmonic:	<-20 dBc
3rd Harmonic:	<-30 dBc
Output Power	
Power Range:	+10 dBm to -30 dBm
Power Resolution:	0.1 dB
Power Accuracy:	+/- 0.5 dB -20 to +10 dBm +/- 0.75 dB < -20 dbm
Impedance	50 ohms
VSWR	2:1 maximum into 50 ohms
External Reference	10 MHz sine, 0 dBm +/- 3 dB

Environmental	
Operating Temperature:	0°C to +35°C
Shock and Vibration:	MIL-PRF 28800F Type III Class 4
EMI:	MIL-STD 461B RE02 Part 2 and CISPR II
Control and interface	
Local interface	Front panel keypad & display
Remote interface:	IEEE-488.2, LAN, RS-232
Primary power	
Voltage:	90-264 VAC autoranging
Frequency:	48-66 Hz
Consumption:	40 VA, maximum
Fuse:	1A, slow-blow
Physical	
Ambient operating temp:	0° to 35° C
Dimensions:	10” W x 2.75” H x 10” D

Ordering Information

Model No.	Description
SSG - 10/4000	10MHz to 4000MHz

Distributor

RF Test Equipment for Wireless Communications

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