

SSG RF Generator



The SSG Signal Generator is used to generate RF signals with extremely low phase noise and high stability.

Frequency Range

The output frequency bands are typically 2 GHz wide, e.g. 6 to 8 GHz (SSG-8) or 8 to 10GHz (SSG-10).

Microcontroller and Interface

The configuration of the generator can be controlled via the front panel keys or remotely via serial RS232, GPIB IEEE488 interface or TCP/IP over Ethernet interface.

Key Features

- Output signal with very low phase noise
- Output signal in 10 Hz steps adjustable
- Output level typical. 14dBm
- Front panel operation
- Remote control via RS232
- Remote control via parallel interface IEEE488
- Remote control via Ethernet interface
- Non-volatile set up memory

Housing options

The generator is delivered in a 19" 1HU case

Order information

The following options are available:

Option LVL (Output level adjustable)

With this option the output level of the SSG can be set in a range of -10 to +13dBm in increments of 0.1dB.

Option ROR (RF Output at the rear)

RF Output at the rear panel, SMA-female connector

Open questions, demo units

If you need more information about the SSG Signal Generator from WORK Microwave or if you would like to have demo unit, please contact us via e-mail: sales@work-microwave.de or call us on + 49 8024 6408 0. We are glad to assist you.

Technical Data

MW Signal Generator Specifications							
	SSG-8	SSG-10	SSG-12	SSG-14	SSG-16	SSG-18	SSG-20
Model number *	83268.0XY.0 0	83270.0XY.0 0	83272.0XY.0 0	83274.0XY.0 0	83276.0XY.0 0	83278.0XY.0 0	83280.0XY.0 0
Frequency range	5.99–8.01 GHz	7.99–10.01 GHz	9.99–12.51 GHz	11.99– 14.51 GHz	13.99– 16.51 GHz	15.99– 18.51 GHz	17.99– 20.51 GHz
Frequency stability with OCXO	< 0.02 ppm						
Frequency resolution	10 Hz						
Switchover time	< 40 ms (after FREQ command is sent)						
Phase noise							
1 kHz offset	<-81dBc/Hz	<-79dBc/Hz	<-78dBc/Hz	<-77dBc/Hz	<-77dBc/Hz	<-76dBc/Hz	<-76dBc/Hz
10 kHz offset	<-96dBc/Hz	<-94dBc/Hz	<-93dBc/Hz	<-92dBc/Hz	<-92dBc/Hz	<-90dBc/Hz	<-90dBc/Hz
100 kHz offset	<- 102dBc/Hz	<-98dBc/Hz	<-98dBc/Hz	<-95dBc/Hz	<-94dBc/Hz	<-92dBc/Hz	<-91dBc/Hz
≥1 MHz offset	<- 110dBc/Hz	<- 108dBc/Hz	<- 106dBc/Hz	<- 106dBc/Hz	<- 104dBc/Hz	<- 103dBc/Hz	<- 102dBc/Hz
Spurious							
> 1 MHz	< -70 dBc						
< 1 MHz	< -60 dBc						
Harmonics	< -26 dBc						
Impedance	50 Ohm						
Output level	+13 dBm ±1 dB						
Output level with LVL option	-10 dBm ... +13 dBm ±1.3 dB in 0.1 dB steps typ. -17 dBm ... +15 dBm ±0.5 dB in 0.1 dB steps						
External reference	5 MHz or 10 MHz (0.3 ppm) 50 Ohm						
External reference input level	-3 dBm ... +10 dBm						
Reference output	10 MHz, 0 dBm ±3 dB (50 Ohm)						
Temperature range	+10 °C ... +55 °C						
Interfaces	IEEE488, RS232, TCP/IP over Ethernet (10 or 100 MBit/s, auto sensing)						
Power supply	100... 230 V AC, 50... 60 Hz						
Power Consumption	max. 35 VA / 20 W, typ. 30 VA / 16 W, Stand by: approx. 12 W / 24 VA						
Mains Fuses	2 x 1.6 A time-lag fuse						
Connectors	RF out: 50 Ohm N or SMA female Ref. I/O: 50 Ohm BNC female RS232: 9-pin Sub-D female IEEE488: 24-pin Centronics female Ethernet: RJ45 8-pin female						
Display	LCD, 1x20 characters						
Keypad	8 keys						
Weight	< 7 kg						
Enclosure	19" rack mount, 1 RU (482 x 44 x 400 mm)						

Technical data subject to change

* X=0: Standard, X=4: Leveling option; Y=2: OCXO, ETH; Y=3: OCXO, ETH; SMA Y=6: OCXO, ETH, ROR