



DS INSTRUMENTS

DUAL 6GHZ SIGNAL GENERATOR



Description

The DS Instruments SG6000X Dual [RF Signal Generator](#) continues to set the industry standard in affordable ultra-compact RF Signal Generation. The SG6000X enables users to generate **two separate** high quality RF signals easily and at extremely low cost without need for a host PC. This fully synthesized, modern fractional N synthesis device covers 7 octaves from 25 to 6000 MHz. Max output power is typically above +10 dBm and can be adjusted downward in 0.5dB steps, or

continuously via the internal variable attenuator. The crisp OLED display provides useful feedback for the user, and front control buttons provide a quick alternative to USB control. Like most of our products, the **SG6000X** easily fits in the palm of your hand, making it a truly portable and bench-space-saving device.

Now shipping REV 6 for 2021!

SG6000X Features:

- Two completely independent signal source channels
- Stand-alone and USB remote operation
- Up to 6GHz output frequency
- Adjustable output power (Independent Step & Variable)
- Industry-standard **SCPI** command support
- Internal ± 2.5 PPM 10MHz TCXO
- External 10MHz MCX reference port
- Front user frequency step buttons
- Front-mounted bright OLED display
- Sturdy all-aluminum enclosure
- Simple Windows control GUI
- Powered from standard USB Type-C like a smartphone
- Easy to interface with all software packages (Matlab, python, android, linux, ios...)

Dual RF Signal Generator Specifications:

- Frequency Range: **25-6000** MHz
- Calibrated Power Level: -35dBm to $>+10$ dBm
- Phase Noise: -74dBc @ 10KHz offset
- Internal Attenuator (digital): 64x 0.5dB Steps
- Internal Attenuator (variable): ~ 10 dB (10 bit DAC)
- Dimensions: 2.75" x 1.25" x 3.15"
- Power Input: 5V USB Type-C (1.2A)
- Output Impedance: 50 Ohm
- RF Connectors: 2X Premium gold microwave SMA

SG6000X Common Applications:

- Automated testing environments
- General RF Lab use
- Flexible LO sourcing
- Antenna design
- EMC Testing
- Production verification and testing
- Educational / university lab use
- Aerospace / Defense Research
- 802.11n Development / Testing
- LTE Engineering


Featured on [Microwave Journal](#), [Microwaves&RF](#), [Military&Aerospace Electronics!](#)

Dual Signal Generator Control

Device Setup


COM4

SG6000LX - SER:0 - FW:1.04



STATUS 4307.0000 MHz MODE RF

SG6000L



USB: **USBVolts: 4.98** [Help!](#)

Channel 1

Freq (MHz): **5405.000**

Attenuator: **15.0** dB

Power Vernier

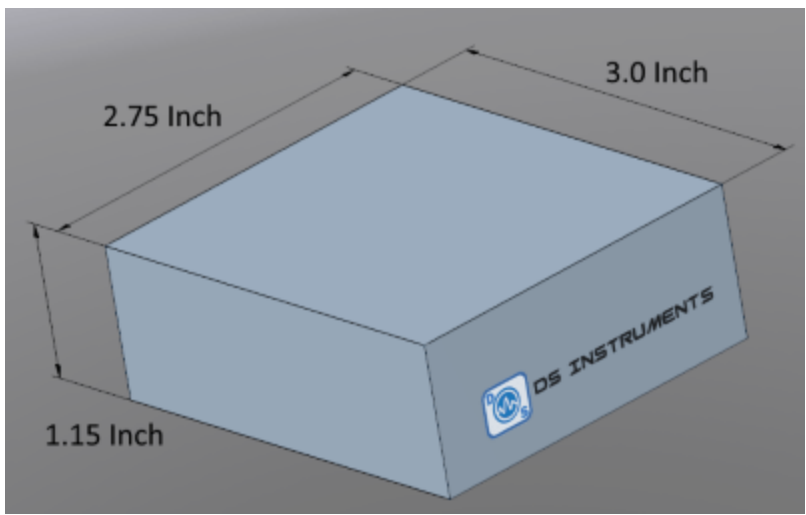
Channel 2

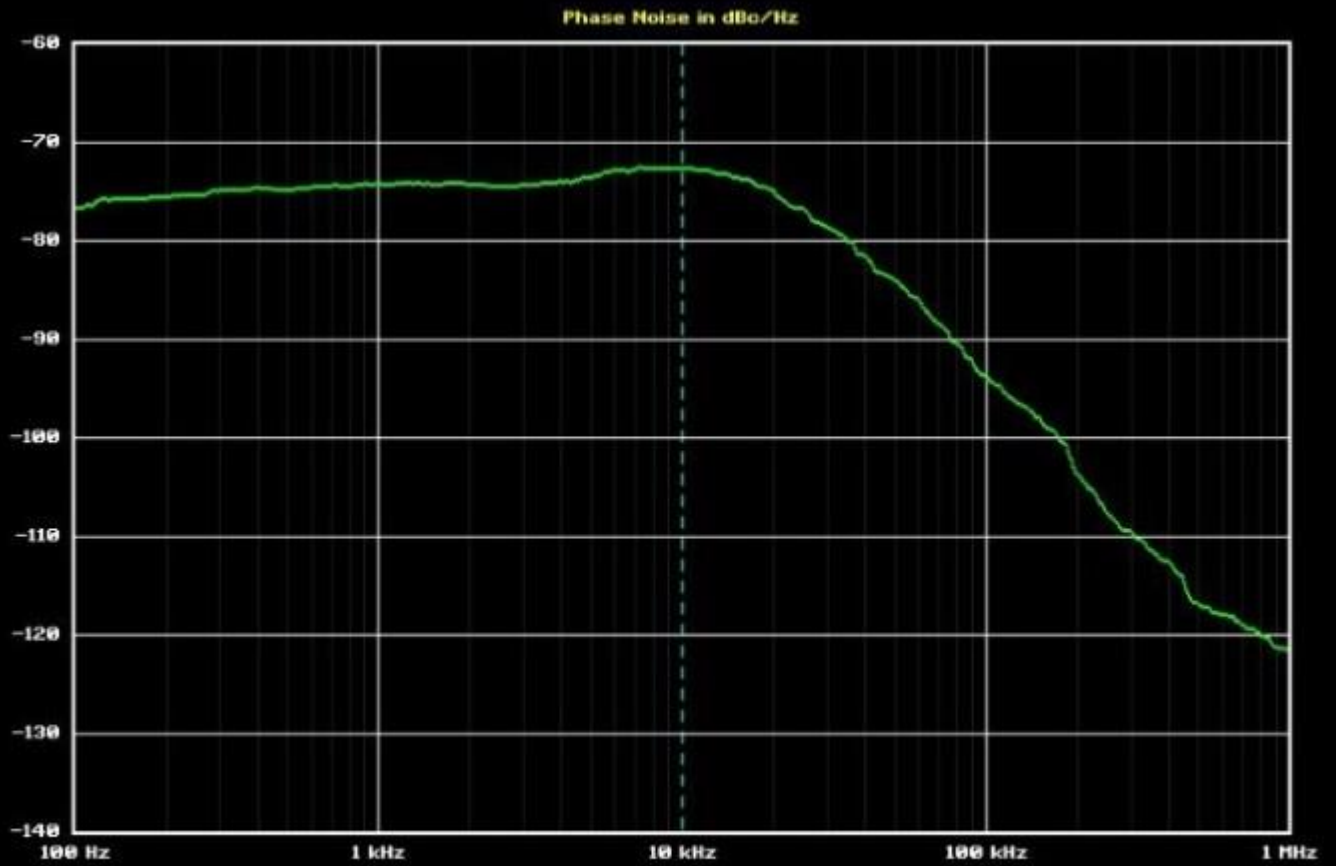
Freq (MHz): **2400.000**

Attenuator: **0.5** dB

Power Vernier

OK OK





Trace	Carrier Hz	Carrier dBm	dBc/Hz at 10000 Hz	RF Atten dB	VBW/RBW	Sweep
SC6000027-INT	6 000 000 000	0.00	-72.5	10	1.00	700s