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**SIGLENT**

*TO SOLVE THE RF DESIGN PUZZLE  
YOU NEED THE RIGHT PIECE*

**SSG5000X RF Signal Generators**

- Frequency range: 9 kHz ~ 4 GHz / 6 GHz
- Level output range: -130 dBm ~ 20 dBm
- Phase Noise: <-120 dBc/Hz @ 1 GHz, 20 kHz offset
- Support external / internal Baseband modulation
- Internal baseband generator RF bandwidth up to 150 MHz (opt.)

## Siglent proudly introduce its next Generation RF-Signal Generator

The new series of signal generators is available with a maximum output frequency up to 6GHz. The series is split in two versions. The SSG5000X is a classical analog RF-Generator with the Siglent-typical, best price-performance ratio. The second version of the Series is called SSG5000X-V. The -V extension is the indicator for the Vector-Signal-Generation capability. The V-Version features internal IQ modulation with an RF-Modulation Bandwidth up to 150 MHz as well as an arbitrary waveform playback function. The well implemented menu structure makes it easy to create even the most complex signal types. The SIGLENT SSG5000X generators are flexible, powerful and cost effective sources which can be the missing piece to solve the RF-Testing puzzle in R&D, education or in the manufacturing environment.

May the 15<sup>th</sup> 2020, as the next step in SIGLENT's efforts to deliver a complete offer on RF-Testing solutions, the new series of signal generators has been introduced. The new instrument series called SSG50000X is able to generate analog and vector signals up to a maximum frequency of either 4 GHz or 6 GHz. Therefore, Siglent is now able to address the complete sub-6-GHz range. This includes the latest newly defined NR-5G Band (FR1), which is located between 3.4 and 3.7 GHz. A look at the banner specifications show the superior basic performance. The phase noise specification shows -120 dBc (@1 GHz / 20 kHz offset), the regulated maximum output level goes up to +20 dBm (settable even up to +26 dBm) the minimum output level is -130 dBm (settable down to -140 dBm). With the optional OCXO-module it is possible to improve the temperature stability enormous. Especially important for precision demanding tests and in the manufacturing area.

The base unit of the SSG5000X comes with a 5" touch display. The front panel and the display menu structure is easy accessible and well designed, so that it takes only minutes to get used to it. Like almost all newly introduced Siglent instruments also the SSG5000X incorporates a web server for easy remote

control over Ethernet. The analog RF-Generator offers all analog modulation types incl. Pulse-Modulation as a standard feature. Different types of Frequency or Amplitude sweeps can be set and combined. The Signal Valid and Trigger In/Out BNC-connectors on the back side enable a smooth and easy implementation into automated test systems. All units support the connection of an external USB-Power Meter in order to compensate the path loss between the RF out of the generator and the DUT.

For more advanced applications like receiver testing, where complex modulated signals are required the vector signal source SSG5000X-V is the right choice. There are multiple possibilities to setup and generate IQ-modulated signals. The custom mode allows a fast setup of standard modulation schemes like ASK, FSK, PSK and QAM with a symbol rate up to 120 Msps. This kind of signal is often used for In-Band blocking (modulated interferer). In case that multi-carrier, OFDM modulated signals, like used in digital broadcast, wireless or cellular telecommunication systems, are needed, the powerful ARB mode is the solution and delivers the necessary flexibility. The SSG5000X-V has a selection of common protocol files, such as 5G NR, LTE, WLAN, WCDMA, GSM, BLUETOOTH built-in. If these are not what is needed customized arb-files can be created, uploaded and replayed. Additive White Gaussian Noise (AWGN) can be generated within the instrument and directly added to the wanted signal. This is a powerful feature for receiver testing.

The SSG5000X-V is also able to output differential I and Q baseband signals. There are four BNC connectors on the back. Additionally, Siglent has added I and Q baseband Inputs in order to support also external IQ-Modulation. Therefore, it is possible to use the generator in all stages during the RF sender or receiver design. The multi-tone mode makes it easy to generate two- or more-tone signals simply by selecting the number of tones, spacing. Multi-tone signals are widely used for audio measurements, amplifier and receiver non-linear distortion tests, ground and satellite communications tests.

The 4 GHz Versions SSG5040X(-V) can later be upgraded to 6 GHz by Software License Key and therefore secures the investment and let the generator grow with the requirements.

With the Arb. Function Generator SDG6000X and its IQ-Option, the entry level RF generator SSG3000X(-IQE) and the new SSG5000X(-V) Siglent is now able to add three well-fitting parts helping to solve the RF-Design Puzzle. For more details and pricing – please refer to [www.siglenteu.com/rf-generators/](http://www.siglenteu.com/rf-generators/)

## About:

SIGLENT TECHNOLOGIES started in 2002 with the development of their first oscilloscope. Now, the portfolio has rapidly expanded to cover many areas of general purpose test instrumentation, including oscilloscopes, signal and function generators, digital multimeters, lab power supplies, electronic DC-Loads, spectrum analyzers and RF-signal generators.

Today SIGLENT TECHNOLOGIES is a global leader producing electronic test and measurement equipment that combines innovative features and functionality with a strong commitment to quality and performance. SIGLENT is ISO 9001:2000 and ISO 14001:2004 certified for its product quality and environmental management programs.