To solve the RF design puzzle, you need the right piece | SIGLENT Release the new SSG5000X series RF Analog/Vector Signal Generator

May 25, 2020

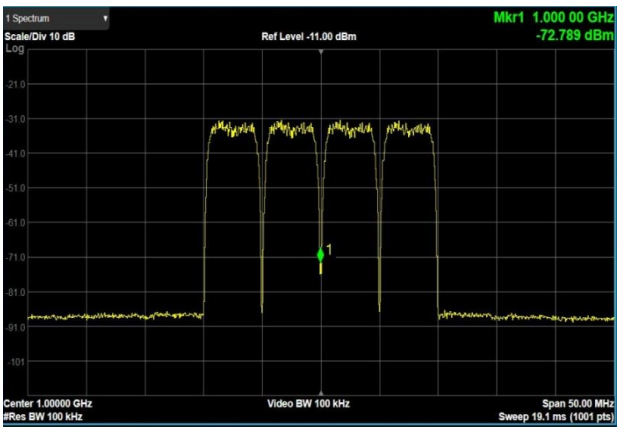
May, 15, 2020, SIGLENT release the new series RF Analog/Vector Signal Generator. It has a much higher output frequency range than the previous SSG3000X series. With model SSG5060X-V, the RF output frequency is up to 6 GHz, and its internal baseband generator bandwidth is up to 150 MHz.

With its powerful functions and wide frequency range, SSG5000X has abundant application fields, such as receiver tests, amplifier tests, IP3 measurement and digital modulation tests, Spur and harmonics measurement, ACPR tests and cable loss compensation.

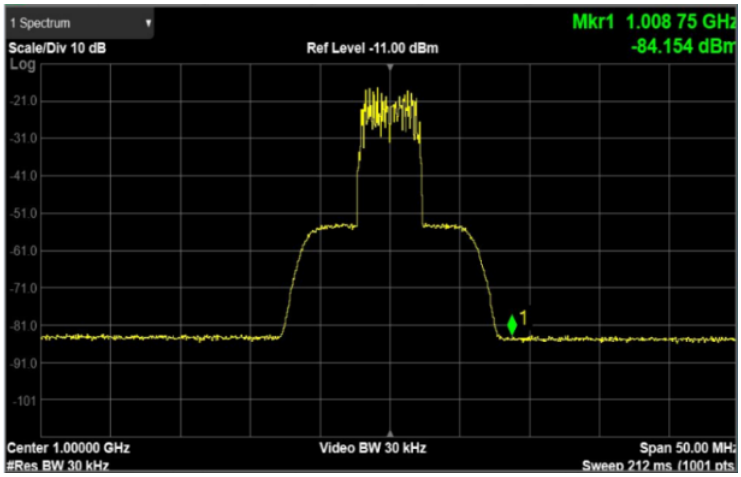
Powerful ARB mode

Rapid developments in consumer electronics require a variety of communication protocols to verify wireless products. A good signal generator should help engineers with output multiple kinds of common protocol signals. SSG5000X supports playback protocol files and has built-in common protocol files, such as 5G NR, LTE, WLAN, WCDMA, GSM, BLUETOOTH. It is the right generator doing verification works.

With ARB mode, SSG5000X can also build and replay waveform sequences, generate multi-carrier signals. Multi-carrier signals are widely used with the introduction of OFDM (Orthogonal Frequency Division Multiplexing), which is used for systems such as wireless/ cellular telecommunications and networking standards such as WiMAX, Wi-Fi 802.11, LTE.

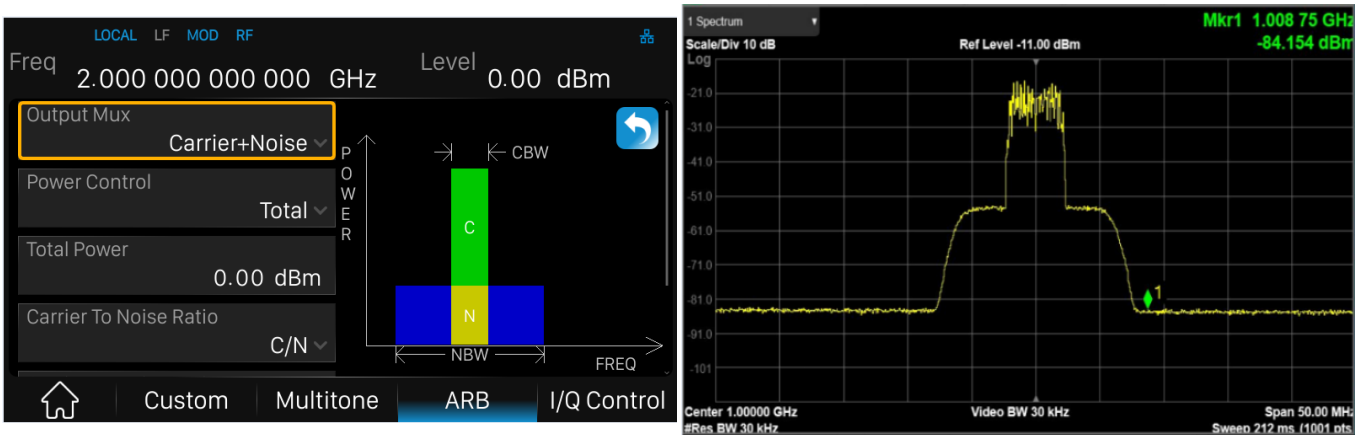


Build and Replay Waveform Sequences



Generate Multi-Carrier Signals

It can add real-time AWGN to modulation signals when testing receiver performance to simulate various environments.

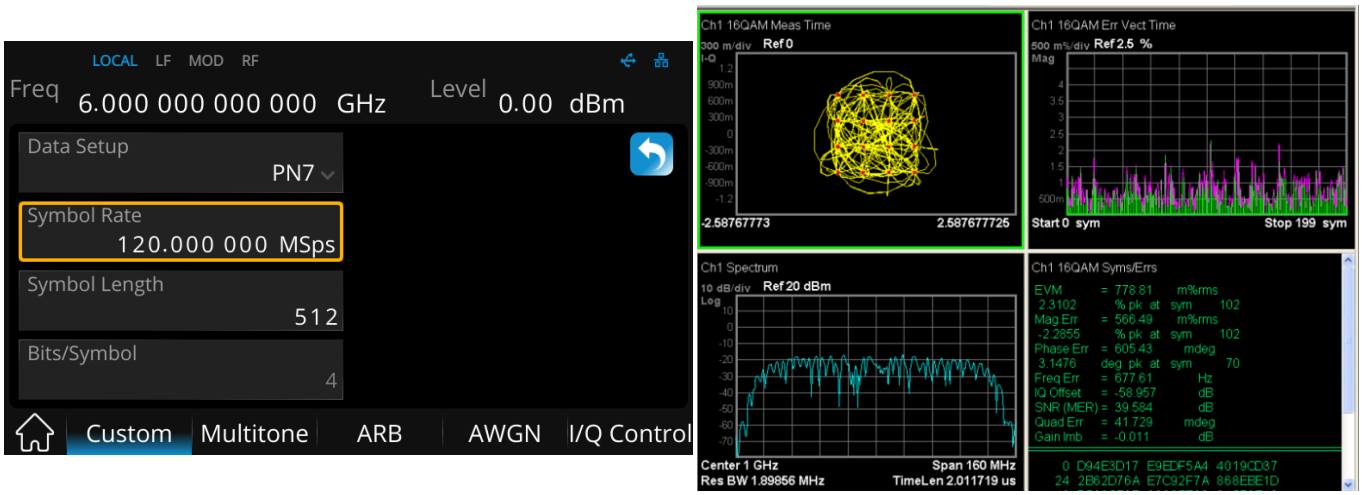


Add real time AWGN to digital IQ signals for receiver performance tests

In addtion, ARB mode can clip the peak power of the signal and display CCDF (Complementary Cumulative Distribution Function) curve. It can mark waveform symbol and output IQ_Event trigger signal to synchronize another unit.

CUSTOM Mode – Quickly create waveforms meet test standards

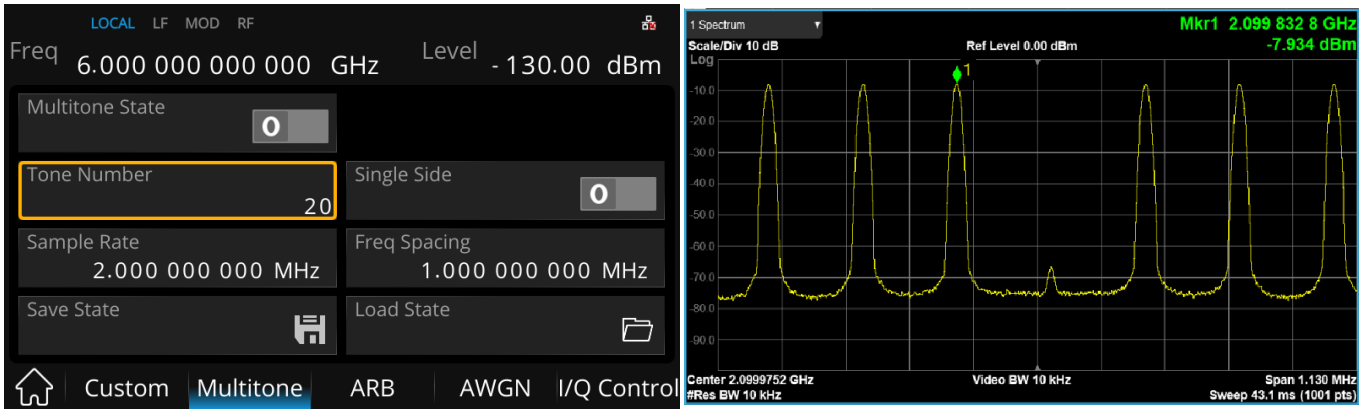
IQ modulation is a very effective way to transmit information. SSG5000X can output common modulation signals like QAM, PSK, ASK, FSK. The symbol rate can be set to as high as 120 Msps.



Output IQ signal in CUSTOM Mode

Multi-tone Mode

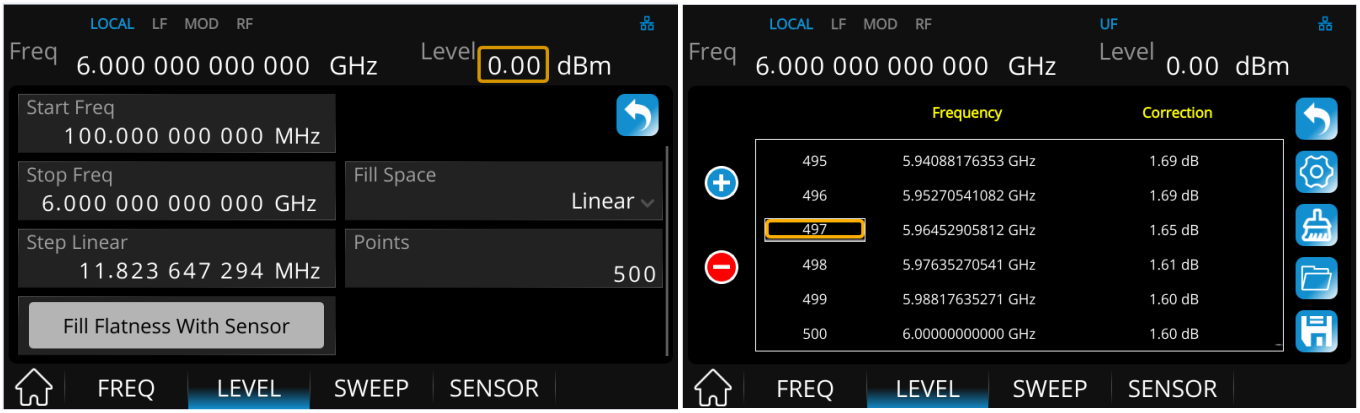
Multi-tone signal consists of several sine waves. SSG5000X supports up to 20 tones. It is widely used in audio measurements, amplifier and receiver non-linear distortion tests, ground and satellite communications tests.



SSG5000X output Multi-tone signal

Cable loss compensation

The longer the transmission line, the larger the cable loss. In order to ensure good flatness before the signal arrives at the DUT, a flatness correction is needed to compensate for the loss caused by the transmission line and switch impedance. SSG5000X supports flatness correction with an external power sensor (not included).



SSG5000X perform cable loss compensation

SSG5000X is also equipped with USB and LAN interface, it is convenient to transmit data and perform remote control. With all these practical functions, SSG5000X series RF signal generator is the right piece to help engineers to solve RF puzzles.

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