SIGLENT RF Signal Source Comparison/Differences

October 19, 2021

Modulation is an important feature for RF signal generation, especially when testing receivers and link performance for digital data transmissions that commonly use IQ modulation schemes.

SIGLENT offers a number of hardware configurations to provide you with exactly what you need to perform your critical tests.

Here is a brief summary of the capabilities of each family and some of the features that differentiate them to assist you in selecting the proper generator for your needs:

Model	External* IQ/Bandwidth	Internal IQ/Bandwidth	External* Multitone/Bandwidth	Internal Multitone/Max # Tones/Max Spacing
SSG3021X	No	No	Yes, < 100 kHz	No
SSG3032X	No	No	Yes, < 100 kHz	No
SSG3021X-IQE	Yes, < 200 MHz (I+Q)	No	Yes, < 100 kHz	No
SSG3032X-IQE	Yes, < 200 MHz (I+Q)	No	Yes, < 100 kHz	No
SSG5040X	No	No	Yes, < 100 kHz	No
SSG5060X	No	No	Yes, < 100 kHz	No
SSG5040X-V	Yes, < 200 MHz (I+Q)	Yes, < 75 MHz (Opt. 150 MHz)	Yes, < 100 kHz	Yes, 40/120 MHz
SSG5060X-V	Yes, < 200 MHz (I+Q)	Yes, < 75 MHz (Opt. 150 MHz)	Yes, < 100 kHz	Yes, 40/120 MHz

*External modulation uses the SSG external modulation input connector located on the rear panel and requires a modulation/baseband generator for operation. The modulation limit is based on the eternal modulation input specification for the SSG in question.

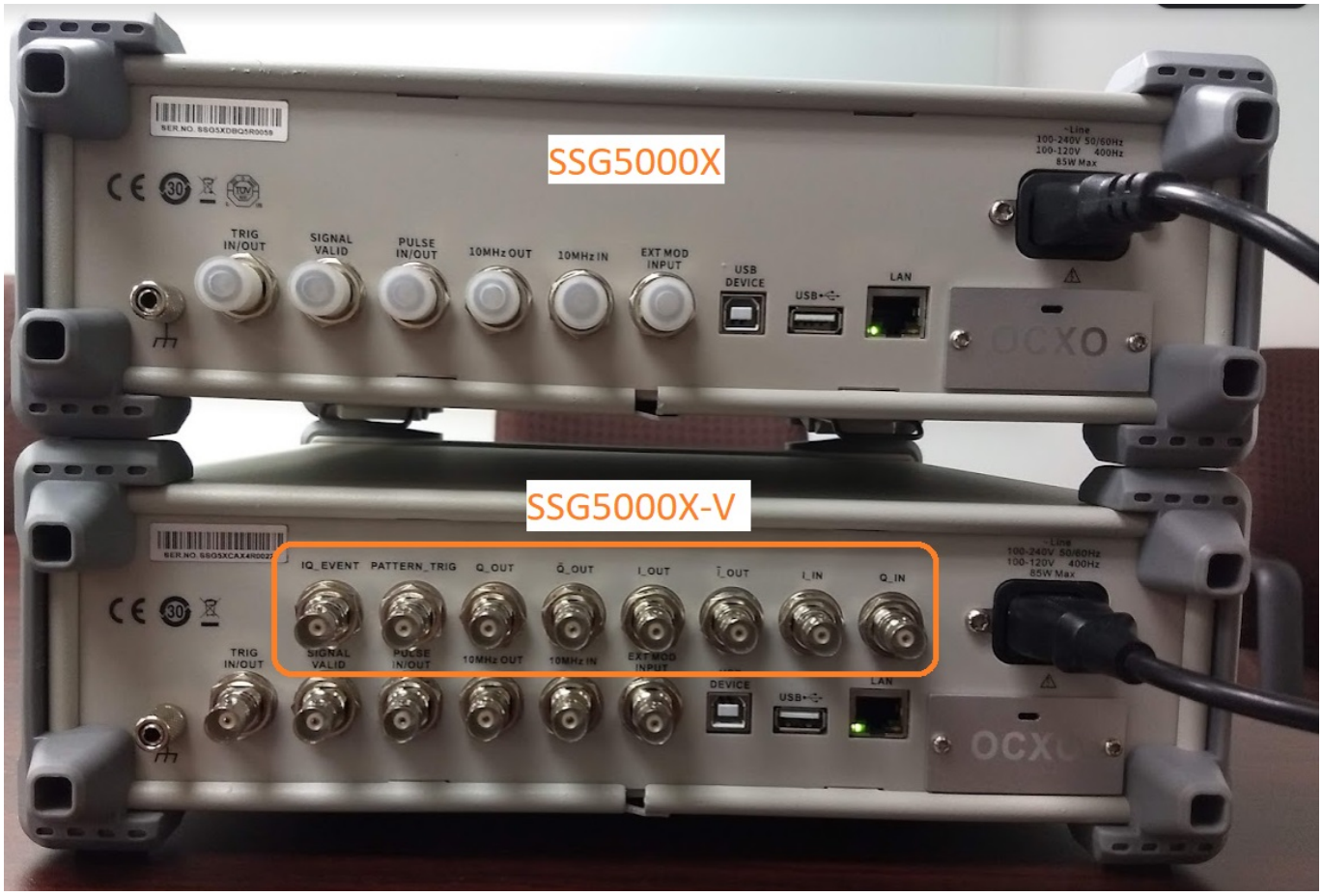
SIGLENT SDG series arbitrary waveform generators are ideal for external modulation requirements. The SDG6000X series also features an external IQ option that provides a flexible arb/IQ generator in a small package.

Click for more information on the SDG6000X series and the IQ Option

SSG3000X vs. SSG3000X-IQE models, rear panel comparison:

NOTE: The -IQE version features I and Q inputs and associated hardware not included with the SSG3000X version.

SSG5000X vs. SSG5000X-V models:


SSG5000X
TRIG IN/OUT
SIGNAL VALID
PULSE IN/OUT
10MHz OUT
10MHz IN
EXT MOD INPUT
USB DEVICE
USB
LAN
OCXO
SSG5000X-V
IQ_EVENT
PATTERN_TRIG
Q_OUT
Q̄_OUT
I_OUT
Ī_OUT
I_IN
Q_IN
TRIG IN/OUT
SIGNAL VALID
PULSE IN/OUT
10MHz OUT
10MHz IN
EXT MOD INPUT
DEVICE
USB
LAN

NOTE: The -V version features I and Q inputs and associated hardware not included with the SSG5000X version. The front panel/GUI of both does include the multitone menu, but it is greyed out/non-operational on SSG5000X versions.

North American Headquarters

SIGLENT Technologies NA
6557 Cochran Rd Solon, Ohio 44139
Tel: 440-398-5800
Toll Free:877-515-5551
Fax: 440-399-1211
info@siglent.com
www.siglentamerica.com/

European Sales Offices

SIGLENT TECHNOLOGIES GERMANY GmbH
Staetzlinger Str. 70
86165 Augsburg, Germany
Tel: +49(0)-821-666 0 111 0
Fax: +49(0)-821-666 0 111 22
info-eu@siglent.com
www.siglenteu.com

Asian Headquarters

SIGLENT TECHNOLOGIES CO., LTD.
Blog No.4 & No.5, Antongda Industrial Zone,
3rd Liuxian Road, Bao'an District,
Shenzhen, 518101, China.
Tel:+ 86 755 3661 5186
Fax:+ 86 755 3359 1582
sales@siglent.com
www.siglent.com/ens