

## 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 external 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:





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](mailto:info@siglent.com)  
[www.siglentamerica.com/](http://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](mailto:info-eu@siglent.com)  
[www.siglenteu.com](http://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](mailto:sales@siglent.com)  
[www.siglent.com/ens](http://www.siglent.com/ens)