New Family of Signal Generators Designed with the Right Touch

Aeroflex introduces the S-Series RF signal generator family into China today. The S-Series offers simplicity, portability, modularity, and RF performance at an attractive price. Aeroflex's reputation for innovation in signal generators has been re-affirmed in the S-Series. The range of instruments has been designed from the ground up to meet the expectations of today’s engineers for instant answers at the touch of a screen. Buttons, rotary controls, and deeply nested software menus have all been removed.

The first in the series is the Aeroflex SGA analog RF signal generators. They are compact and lightweight with low phase noise, accuracy and fast settling time at an attractive price.

The SGA is a high specification analog RF signal generator that is a reliable and repeatable signal source solution for general-purpose, aerospace and military test applications in laboratory, factory and field environments. The intuitive LCD touch-screen interface allows modulated or swept RF signals to be set up using fewer keystrokes than required by traditional soft key models, thus saving the engineer’s time and reducing the risk of error.

A modular format, featuring the new Aerolock™ locking mechanism, allows additional RF instruments such as a second signal generator and combiner to be mechanically coupled externally by the user.

The Aeroflex SGA is currently available in two models: the SGA 3, which has an operating frequency range of 100 kHz – 3 GHz, and the SGA 6 covering 100 kHz – 6 GHz. The SGA is the first instrument in the new Aeroflex S-Series, which is planned to include digital signal generators for wireless-specific measurements including LTE, LTE-A and IEEE 802.11ac standards, and a range of signal analyzers.

Portability is a key feature of the new instruments. The SGA is half rack width and 4U high, and weighs less than 17 lbs (8 kg) – less than half the weight of its predecessor. This makes it simple for one person to move it around the laboratory

or to use in the field.

A typical single sideband (SSB) phase noise specification of -135 dBc/Hz at 20 kHz offset from a 1 GHz carrier means that the SGA signal generator can easily measure receiver selectivity beyond 80 dB. Fast frequency settling times of 1 ms in conventional frequency selection mode, or 100 µs in list mode, make the SGA particularly suited for frequency hopping and semiconductor test applications, as well as ensuring maximum throughput in a production environment.

Maximum RF output power is +13 dBm, with a resolution of 0.01 dB, and a high power option is available to extend the maximum calibrated RF level to +20 dBm. Power level can be switched rapidly using an electronic attenuator, in less than 100 µs to within 0.1 dB of final value, and repeatability is better than 0.05 dB.

A digital sweep of carrier frequency, RF level and modulation source is included, with single, continuous or externally triggered modes, as well as a list mode sweep facility.

Options are available for AM/FM/phase modulation, adding four internal 10 MHz oscillators and two external modulation inputs, and for pulse modulation.