



## NEWS RELEASE

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### **Signal Hound Introduces New VSG25A Vector Signal Generator for \$495**

*Operates from 100 MHz–2.5 GHz with digital test pattern generation*

#### **INTERNATIONAL MICROWAVE SYMPOSIUM 2015—PHOENIX—**

**May 19, 2015**—Signal Hound, the leader in high-performance, USB-based RF test and measurement products, announced a revolutionary new vector signal generator (VSG) that breaks price barriers. It is USB-powered, weighs just 130 grams, and fits into a shirt pocket.

The Signal Hound VSG25A costs just \$495 and delivers good performance at unprecedented value. The VSG25A features a frequency range of 100 MHz to 2.5 GHz, output amplitude from -40 dBm to +10 dBm, and 100 MHz of modulation bandwidth. The VSG25A covers most telecom frequencies and two major ISM bands (902 MHz-928 MHz and 2.4 GHz-2.5 GHz). Covering FM broadcast bands, it can be used down to 80 MHz with reduced amplitude accuracy.

#### **Digital modulation built in**

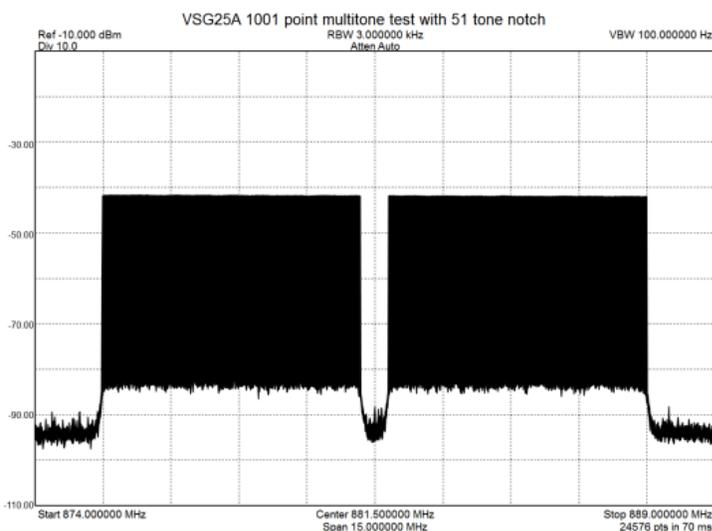
Digital modulation comes as part of the VSG25A. Specific protocols are not supported—however, the modulation behind those protocols is supported. These include BPSK, QPSK, DQPSK, OQPSK,  $\pi/4$  DQPSK, 8PSK, 16PSK, 16QAM, 64QAM, and 256QAM. Symbol rates from 4 kHz to 45 MHz are supported.

## Noise power ratio testing attractive to telecoms industry

Measuring intermodulation distortion is critical for the telecommunications industry. Two-tone IP3 testing is useful for narrowband applications, but does not do a very good job of simulating actual channel conditions on a multi-carrier system, which more closely resembles bandwidth-limited white noise.

Noise power ratio (NPR) testing traditionally consists of a broadband Additive

White Gaussian Noise (AWGN) source covering the entire bandwidth to be tested, and a deep, narrow notch filter somewhere within this bandwidth (typically 10% or less of the total bandwidth). The noise power ratio is the ratio of the signal power density to the power density of the notch, which is a combination of



thermal noise and intermodulation products. While a band pass filtered noise source and notch filter may work in some cases, there is a much easier way that also adds greater flexibility. A modern vector signal generator is the foundation of up-to-date NPR testing. With a 100 MHz of bandwidth and capability of producing synthetic noise sets of 1000+ tones (having random-phase relationships combined with the absence of tones in the test pattern's center), the VSG25A is a perfect solution. Until now, these generators would cost you thousands or even tens of thousands of dollars.

"I anticipate that this little gem is likely to be disruptive to the VSG market," said Bruce Device, CEO, Signal Hound. "There is no one else even close to this price range in vector signal generation. The design trade-offs are clearly compensated for by its very low price. This will create a whole new low-end VSG market sector."

### **Price and availability**

The Signal Hound VSG25A vector signal generator is in stock, ready for immediate shipment. The VSG25A sells for \$495 USD. Price will vary outside the USA due to distributor cost of shipping, import taxes, and currency fluctuations. The purchase price includes software. An API (Application Programmer Interface) is included that gives programmers access to AM/FM, pulse, multi-tone, PSK, QAM, and arbitrary waveform functions.

### **About Signal Hound**

Signal Hound products are compact and simple to use. Although they are small and affordable, they have the accuracy and functionality expected from much more expensive and bulkier test equipment.

For more information you can visit [www.signalhound.com](http://www.signalhound.com), contact [sales@signalhound.com](mailto:sales@signalhound.com), or call 1-800-260-TEST. Outside of the United States, please visit the Signal Hound website at <https://www.signalhound.com/about-us/distributors/> to find the nearest distributor.

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