

SIGLENT Announces the Release of SVA1015X Spectrum & Vector Analyzer

June 27, 2018

ShenZhen, June 28, 2018: SIGLENT Technologies has announced the release of the SVA1015X spectrum & vector analyzer. Its measurement frequency range is 9 kHz-1.5 GHz, and it has excellent parameter specifications: resolution bandwidth (RBW) as low as 1 Hz, display average noise level (DANL) as low as -156 dBm/Hz, phase noise as low as -99 dBc/Hz @ 10 kHz. This series of products continues the simple and elegant appearance of the SSA X series with enhancements including a 10.1-inch multi-touch screen that supports mouse and keyboard operations. It also features new capabilities including vector network analysis mode (VNA), distance-to-fault mode (DTF), advanced measurement, AM/FM/ASK/FSK modulation analysis mode, and EMI pre-compliance testing.



Vector Network Analyzer: RF Circuit Network Analysis Tool

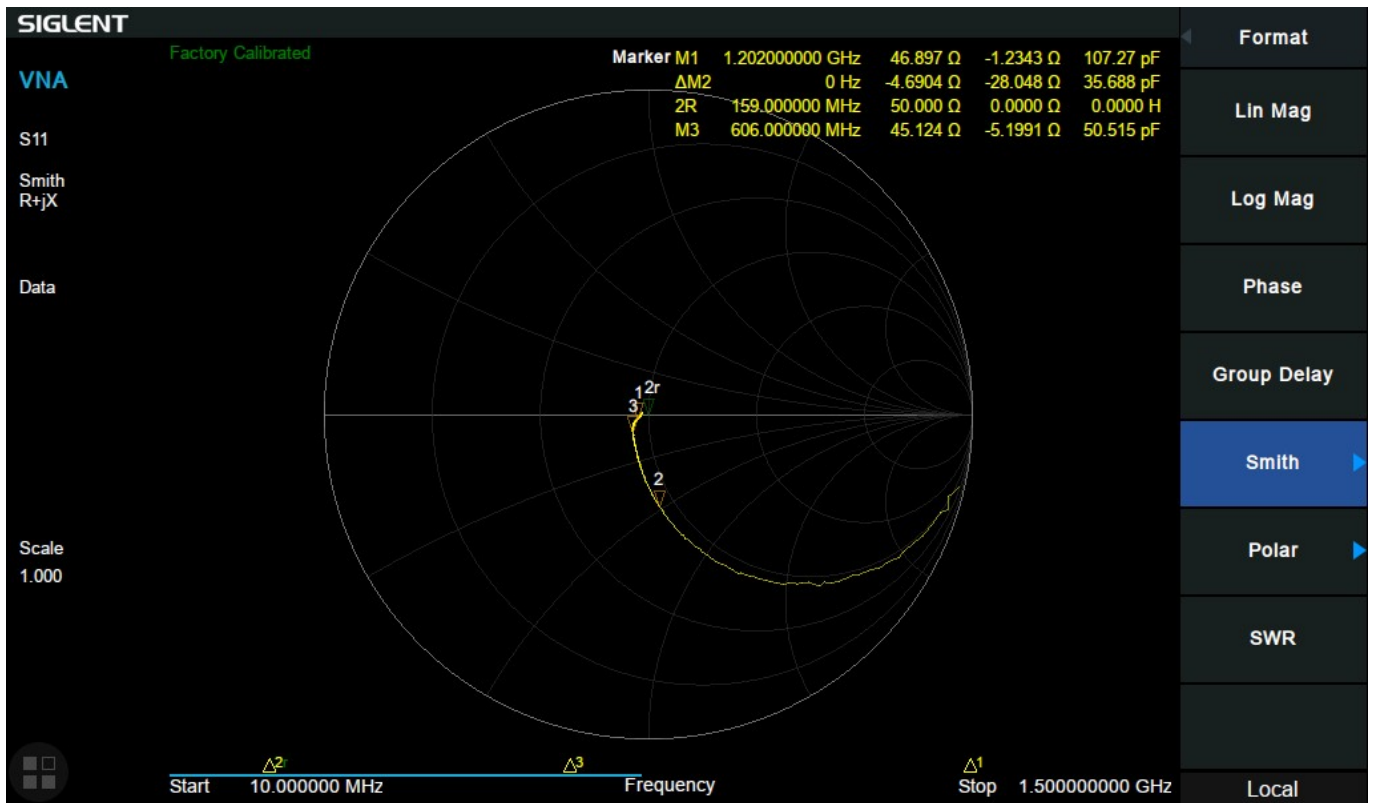


Figure 1: The SVA can display device performance on a Smith chart

Traditional spectrum analyzers and tracking sources can typically perform scalar network analysis and supply only return loss characterization. The SVA1015X has a built-in tracking source and reflection bridge that can simultaneously scan amplitude and phase. This provides the ability to perform vector S11 and S21 measurements on RF components and circuits. This data can be graphed in a number of common formats, including Smith and polar charts.

Distance-to-fault Mode: Accurately Locate Cable Faults

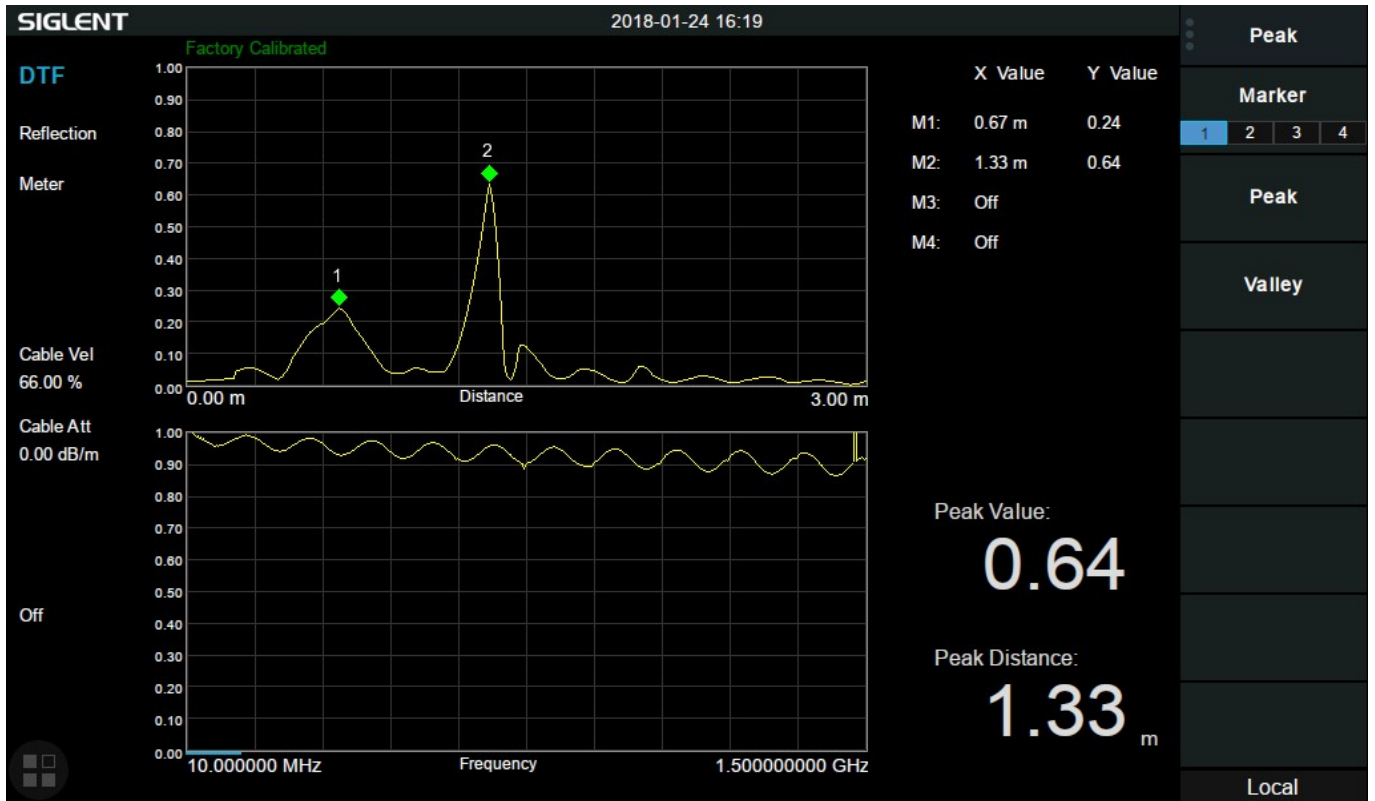


Figure 2: Fault point distance is displayed directly on the screen

The distance-to-fault mode is tailored to performance verification and fault analysis of antennas and cables. Utilizing Frequency-domain - reflectometry , the DTF feature can accurately measure return loss and the relationship between VSWR and distance, and quickly identify bad connections, broken or faulty cables, and locate their location. The data is presented clearly on the screen, allowing users to find the exact point of failure, troubleshoot the problem faster and repair it in time.

ASK/FSK Modulation Analysis Mode: Analyze Communication Modulation Signals

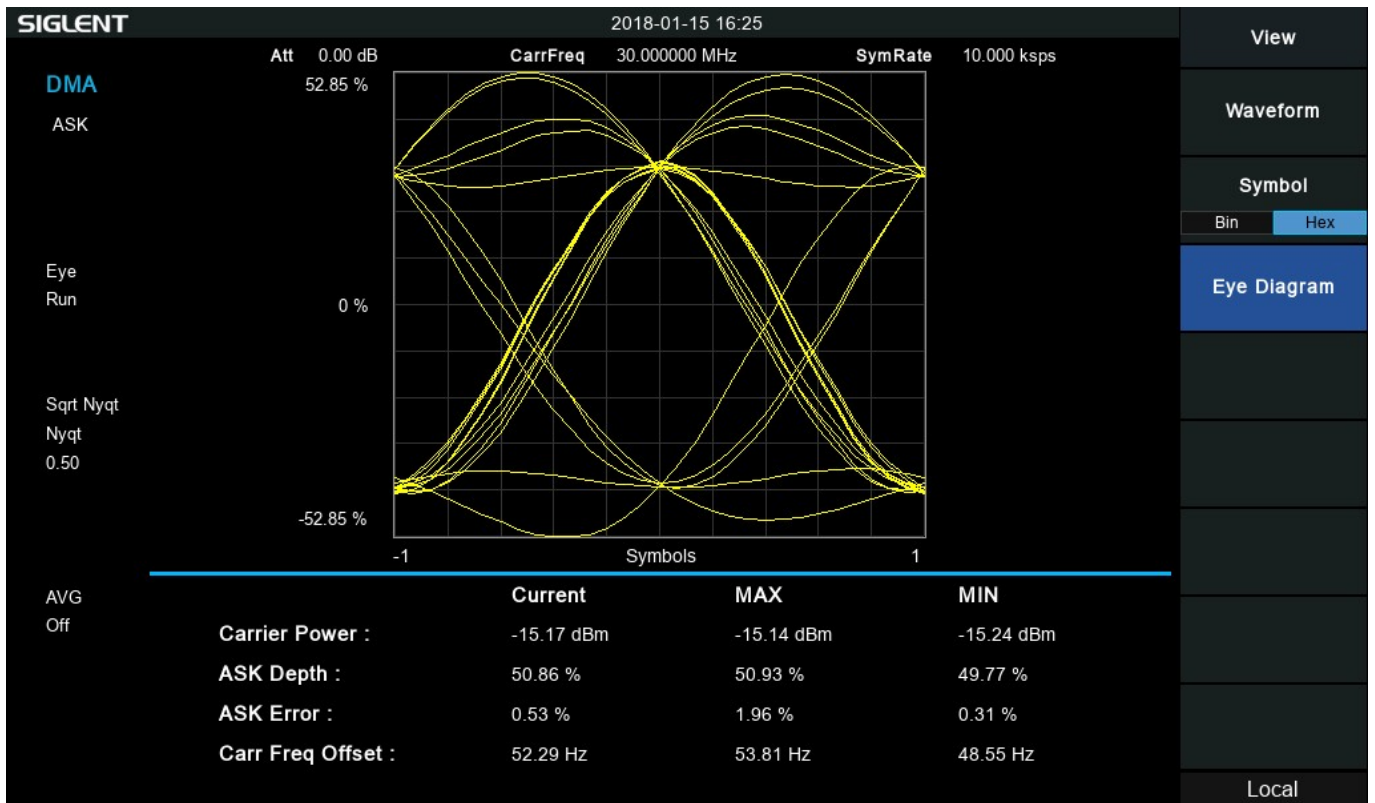


Figure 3: Modulated signal analysis results are displayed as eye diagrams

As a common digital modulation method, ASK and FSK are widely used in information transmission. The SVA1015X spectrum & vector network analyzer has ASK/FSK digital modulation analysis mode, which can analyze the corresponding modulation signal and display the waveform, symbols (including binary and hexadecimal), and eye diagrams. Parameters such as carrier power, modulation depth, and frequency offset are also clearly displayed at the bottom of the screen. At the same time, eye diagrams can be used to qualitatively analyze inter-symbol interference and noise and obtain information about the performance of the transmission system.

Advanced Measurement: More Choices of Signal Analysis

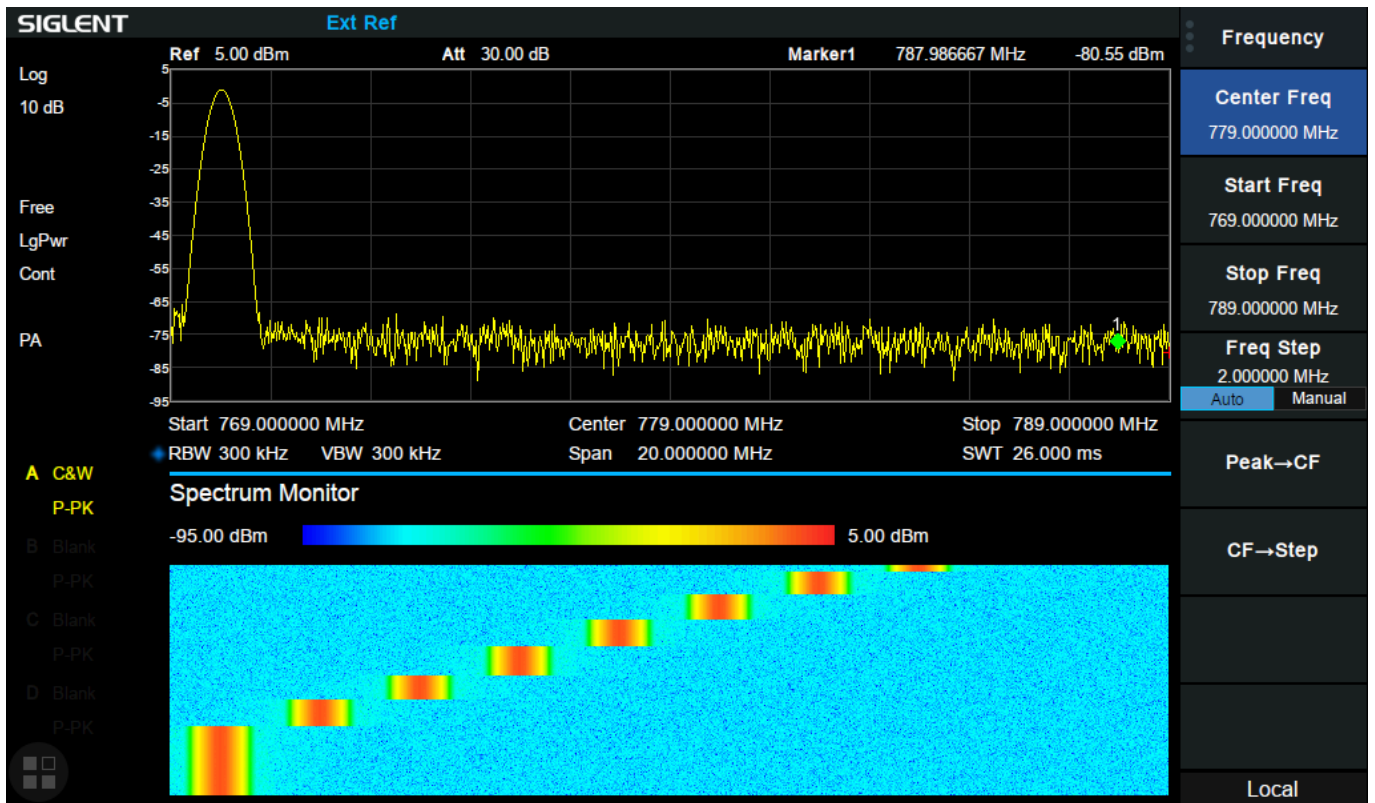


Figure 4: Waterfall Function Using SVA1015X Spectrum & Vector Network Analyzer

The SVA1015X also uses advanced power measurement as an option to support the adjacent signal power ratio and occupied bandwidth of the test signal. The input signal of the frequency change can be monitored through the waterfall chart, and the color temperature can be used to reflect the magnitude (the power level) of the signal to help the user perform comprehensive analysis of the signal to be measured.

EMI Pre-Compliance Testing: Product Development Efficiency and Quality Double Upgrade

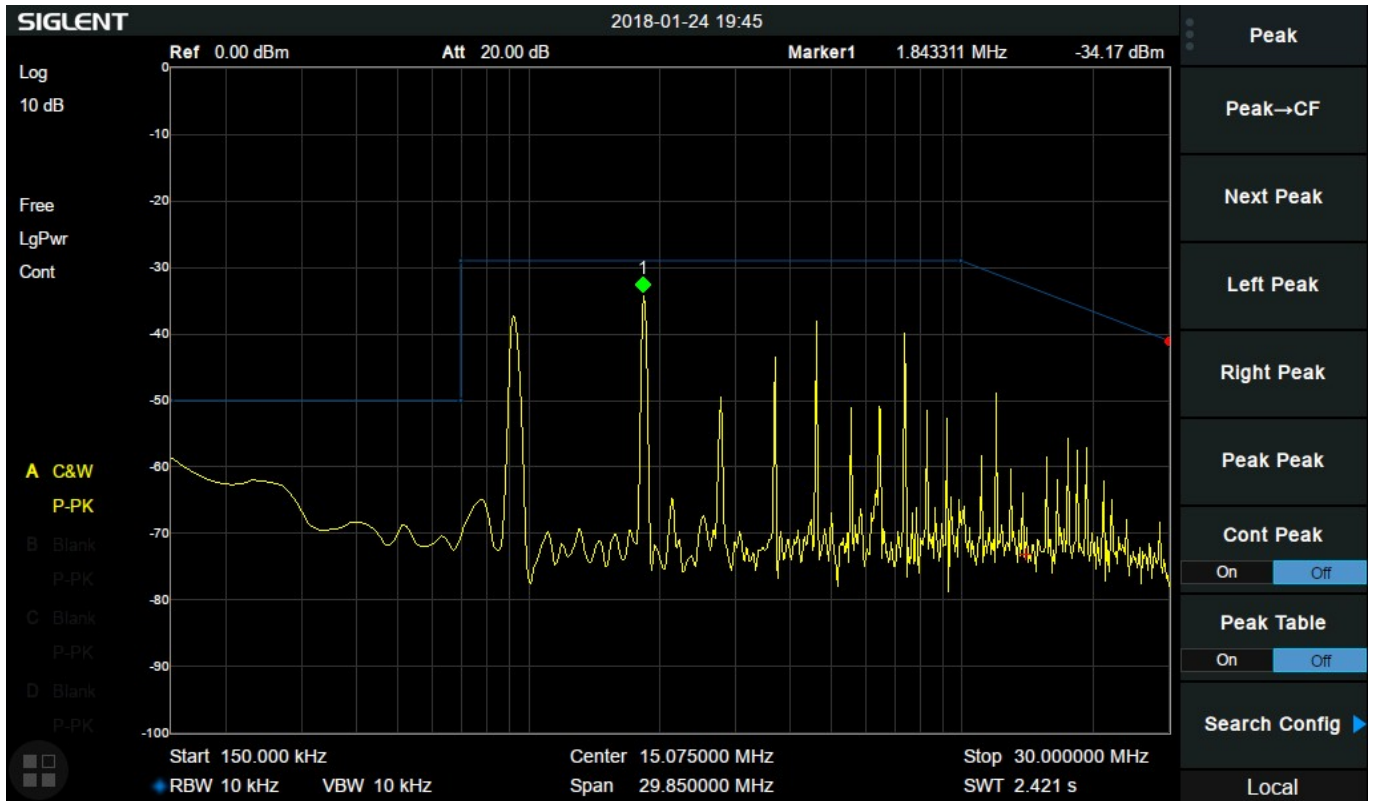


Figure 5: EMI pre-compliance tests are easier with the EMI toolkit and user defined limits

The SVA1015X is optionally equipped with a CISPR-compliant EMI filter and quasi-peak detector. In conjunction with the near-field probes (SRF5030 or SRF5030T), the SVA1015X supports EMI pre-compliance testing. This makes it possible to discover and resolve electromagnetic compatibility problems at all levels as early as possible in all phases of product R&D and design, improve product engineering quality, and avoid time-consuming and labor-intensive rework and recertification.

With this all-in-one SVA1015X spectrum & vector network analyzer, engineers can completely get rid of the trouble caused by the pile of discrete instruments on the table.

Visit our new website to learn more about this product: <http://siglentna.com/spectrum-analyzers/>



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