Tektronix SignalVu Analyzes RF Signals Up to 20 GHz Bandwidth

Unique Combination of Vector Signal Analyzer, Spectrum Analyzer, and Digital Oscilloscope Breaks New Ground

BEAVERTON, Ore., October 27, 2008 - Tektronix, Inc., a leading worldwide provider of test, measurement and monitoring instrumentation, announced SignalVu™ vector signal analysis software for DPO7000 and DPO/DSA70000 digital oscilloscope series, enabling engineers to easily characterize and validate wideband and microwave spectral events.

One of the paramount trends in today's communications and radar systems is the need for increased information bandwidth and accurate phase and magnitude characterization of wideband signals. SignalVu combines the signal analysis engine of the RSA6100A real-time spectrum analyzer with the powerful triggering capabilities of the industry's widest bandwidth DPO7000 and DPO/DSA70000 digital oscilloscope series, enabling designers to evaluate complex signals up to 20 GHz without a need for an external down converter. The unique combination provides the functionality of a vector signal analyzer, a spectrum analyzer, and the powerful Pinpoint™ trigger system capabilities of a Tektronix oscilloscope — fully integrated within a single RF test package at a lower price than alternative solutions. SignalVu advances productivity for engineers working on wideband RF components and system design, integration and performance verification, or operations engineers working in networks or spectrum management.

"The Tektronix SignalVu software rapidly displays RF characteristics in the frequency, time, phase, and power domains without the need for manual setups," said Lynne Camp, vice president, Performance Plus Instruments, Tektronix. "The software works with the oscilloscope user interface to provide the best of both worlds: market-leading real-time bandwidth and triggers from the oscilloscope and a simple user interface for RF measurements. SignalVu running on DPO7000 and DPO/DSA70000 digital oscilloscopes provides engineers with improved time to insight while validating digital RF circuits and systems."

Both terrestrial and satellite communications systems are driven by demands for greater and greater data rates, which drive bandwidth. Wideband signals have real-time or information bandwidth greater than 500 MHz and cannot be demodulated with traditional spectrum analyzers. Typical bandwidths for wideband signals range from 500 MHz to 4 GHz and carrier frequencies that extend well into the microwave region. Tektronix oscilloscopes provide real-time acquisition of signals up to 20 GHz. SignalVu vector signal analysis software shows time variant behavior of these signals, speeding design validation for applications such as wideband radar, high data rate satellite links, or frequency hopping communications.

"Engineers designing radar systems need to make a lot of standard pulse measurements on test waveforms," said David Erisman, Chief Technology Officer, X-COM Systems. "Tektronix SignalVu can make 21 automated measurements on every pulse. This compares favorably to alternatives that offer only manual measurements, forcing users to locate and mark each pulse individually. Making traditional measurements readily available allows the engineer to verify the integrity of the data-set prior to post-processing. SignalVu running on a Tektronix scope will significantly improve ease of use and productivity for radar designers."

Unique Integrated Functionality

Unlike alternatives, SignalVu software running on the Tektronix DPO7000 or DPO/DSA70000 oscilloscope hardware provides the integration of spectrum analyzer and digital oscilloscope functionality. Alternatives require operation in either oscilloscope mode or vector signal analyzer mode and attempting to mix modes will result in system errors.

SignalVu controls all scope acquisition parameters such as record length, vertical scaling and sample rate.

SignalVu also makes effective use of memory; an acquisition is only limited by the amount of memory in the oscilloscope. For example, SignalVu software works seamlessly with the oscilloscope allowing users to utilize all of its powerful triggering capabilities. The ability to trigger on time and amplitude-varying events of interest is paramount in wideband system design, debug and validation. The Pinpoint trigger system within the DPO7000 and DPO/DSA70000 oscilloscopes allows selection of virtually all trigger types on both A and B trigger events whether they are transition, state, time or logic qualified triggers. Once triggered, SignalVu processes the acquisition for analysis in multiple domains.

Similarly, the Tektronix solution allows multiple measurements without a need to recapture the data. All signals in an acquisition bandwidth are recorded into the oscilloscope's deep memory. Up to four channels can be captured simultaneously and each can be independently analyzed by SignalVu software.

Powerful Analysis

SignalVu vector signal analysis software utilizes the same analysis capabilities found in the RSA6100A series real-time spectrum analyzers. In addition to spectrum analysis, spectrograms display both frequency and amplitude changes over time. Time-correlated measurements can be made across the frequency, phase, amplitude, and modulation domains. This is ideal for signal analysis that includes frequency hopping, pulse characteristics, modulation switching, settling time, bandwidth changes, and intermittent signals.

Pricing and Availability

SignalVu vector signal analysis software is now available for order on all DPO7000 and DPO/DSA70000 series oscilloscopes. The basic package is SignalVu Essentials that provides eleven core measurement and analysis capabilities. U.S. MSRP for SignalVu Essentials starts at $3,490 for the DPO7000 Series models and $4,990 for the DPO/DSA700000 Series models. Additional capabilities for pulse measurements and modulation analysis are available as options.

About Tektronix

Tektronix is a leading supplier of test, measurement, and monitoring products, solutions and services for the communications, computer, and semiconductor industries - as well as military/aerospace, consumer electronics, education and a broad range of other industries worldwide. With 60 years of experience, Tektronix enables its customers to design, build, deploy, and manage next-generation global communications networks, advanced and pervasive technologies. Headquartered in Beaverton, Oregon, Tektronix has operations in 19 countries worldwide. Tektronix' Web address is www.tektronix.com.

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