Constant Wave Introduces Advanced De-Embedding Software for VNAs

Constant Wave announced today the release of the latest version of its software for use with Vector Network Analyzers: Spectro™ VNA Pro version 2.3.

This new version includes a number of industry-first capabilities, which are built on Constant Wave's innovative de-embedding methodology: Time Domain Substitution™ (patent pending). New features include S-parameter resampling of acquired data and the ability to create an equivalent 2-port network which can be used to de-embed a Device Under Test (DUT) from measured S-parameters in a more traditional way.

S-parameter Resampling – It is customary for the frequencies used to make S-parameter measurements to form a harmonic data set. However, if an engineer has not appropriately sampled an S-parameter with the Vector Network Analyzer (VNA), measurement accuracy can be compromised.

"If the original data is not derived from a harmonic calibration, Spectro VNA Pro can resample the data easily," said Donald Metzger, president and chief technologist of Constant Wave. "The engineer does not need to recalibrate the VNA and make a new measurement."

De-embedding 2-Port Network (patent pending) – Sometimes a DUT being measured by a Vector Network Analyzer is not simply a single device. The DUT may include connectors, cables, transmission lines, and other components which lie between the calibration reference plane and the target device being measured. While conventional test methods compensate for measurement errors up to the calibration reference plane, the intervening components represent another source of measurement error.

Mr. Metzger concluded, "Spectro VNA Pro's new De-Embedding 2-Port function is derived from our Time Domain Substitution methodology. The software characterizes 2-port adapters or networks quickly and creates a de-embedding file which can be put back into a VNA."

The Spectro VNA Pro version 2.3 software is available now and costs $17,000 (USD).

About Spectro VNA Pro

Embedded RF and microwave devices are more prevalent in today's modern designs. The need to characterize the performance of such devices has placed

greater demands on Vector Network Analyzer-based measurement systems. Calibrations and measurements that are simple in the “coax” world become increasingly complex, time consuming and costly when devices are soldered to a PC board.

Constant Wave’s Spectro VNA Pro software allows engineers to easily and accurately characterize the performance of a range of RF and microwave components, including embedded devices. The company’s proprietary de-embedding approach – Time Domain Substitution – enables engineers to diagnose and troubleshoot design or test challenges quickly. Spectro VNA Pro yields more accurate measurements and less uncertainty across frequency and time.

For more information, please visit www.constantwave.com [1].

Posted by Ron M. Seidel, Editorial Intern

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