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News Release

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See Us At IMS 2009 – Booth #2718

Anritsu Introduces Broadband Vector Network Analyzer with Industry-Best Performance from 70 kHz to 110 GHz in Single Coax Connection And Up to 0.5 THz with Millimeter Waveguide Extensions

—ME7828A Ushers in New Era in Broadband Characterization of Active and Passive Devices from DC to Daylight —

Boston – IMS – June 8, 2009 — Anritsu Company introduces the VectorStar™ Broadband [ME7828A](#) vector network analyzer system that produces industry-best dynamic range, measurement speed, and calibration and measurement stability over the broadest frequency range of 70 kHz to 110 GHz. The performance and frequency coverage provide designers and manufacturers of microwave/millimeter wave components and devices with a single system to accurately and quickly measure devices from DC to daylight.

Engineers performing device modeling and characterization must measure across the widest frequency range possible for optimum model accuracy. During the design phase, they must constantly re-verify their device models through measurement verification. Confirming DC performance at higher frequencies is equally important. Traditionally, users have been constrained by the poor performance of microwave VNAs below 500 MHz, as signal-to-noise ratio diminishes below 500 MHz due to microwave coupler roll-off. The result has been a significant weakness in device models at the low end.

Previously, the only solution was to re-measure the device on a separate low-frequency system that has resulted in large concatenation errors. Due to VectorStar's 70 kHz low-end frequency, it is possible to accurately measure devices starting at 70 kHz for DC information and up to 110 GHz for capturing all the performance of the device at multiple fundamental harmonics.

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The incorporation of VectorStar produces other performance advantages, including dynamic range improvements of up to 30 dB compared to previous systems. The ME7828A also incorporates the fast switching speed of Anritsu's MG37022A sources to produce a sweep speed of 120 ms for 201 points, and up to four times faster than leading competitive instruments. Combining the broadest frequency range with 100,000 points in a single channel, the ME7828A provides the most complete time domain analysis capability presently on the market.

On-wafer environments require measurement stability because the process of re-calibration is very time consuming and expensive. The ME7828A delivers industry-best calibration and measurement stability, typically 0.1 dB over a 24-hour period.

Two configurations are available. The standard ME7828A provides basic measurement capabilities for active device testing. The ME7828A-012 delivers additional optimal performance for active device testing, time domain analysis and device characterization. Both configurations are compatible with existing SUSS and Cascade probe stations and appropriate positioners.

The ME7828A system can be configured with a full range of banded millimeter-wave modules that extend the frequency range to 500 GHz. A variable attenuator in the millimeter band modules for both configurations allows matching power of the two bands for a smooth transition when measuring active devices in the forward and reverse directions.

Kelvin bias tees are designed into the multiplexing combiner modules in both configurations. The Kelvin bias tees provide sense and force capabilities, and are positioned close to the device under test (DUT) for optimum performance and sensitivity. The result is a significant reduction in IR losses compared to bias sourcing from inside the test set. In addition, the sensing circuit continuously monitors the bias conditions at the DUT and provides feedback corrections to the Source Monitor Unit (SMU) bias supply equipment, as needed.

Target Market and Applications

Anritsu developed the ME7828A for designers and manufacturers of microwave/millimeter-wave components and devices, especially where broadband measurements are needed for accurate device modeling and circuit simulation. Broadband devices are integral to designs used in emerging 60 GHz Wireless Personal Area Networks (WPAN), optical networks operating at 40 Gbps and faster, 77 GHz automobile radar, digital radio links, and 94 GHz used for imaging millimeter-wave radar in astronomy, defense and Homeland Security applications.

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Delivery is 12 weeks ARO.

About Anritsu

Anritsu Company (www.us.anritsu.com) is the American subsidiary of Anritsu Corporation, a global provider of innovative communications test and measurement solutions for more than 110 years. Anritsu provides solutions for existing and next-generation wired and wireless communication systems and operators. Anritsu products include wireless, optical, microwave/RF, and digital instruments as well as operations support systems for R&D, manufacturing, installation, and maintenance. Anritsu also provides precision microwave/RF components, optical devices, and high-speed electrical devices for communication products and systems. With offices throughout the world, Anritsu sells in over 90 countries with approximately 4,000 employees.

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