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News Release

Anritsu Company Introduces Industry-First Noise Figure Measurement Capability for VectorStar® Vector Network Analyzers

— VectorStar Provides Designers, Modelers, and Manufacturers of RF/Microwave Amplifiers with the Only VNA Platform Capable of Measuring Noise Figure from 70 kHz to 125 GHz —

Montreal – June 19, 2012 – Anritsu Company (IMS booth #807) introduces noise figure measurement capability for its [VectorStar MS4640A](#) and [ME7838A Vector Network Analyzers](#) (VNAs) to provide designers, modelers, and manufacturers of RF/microwave amplifiers with an unprecedented level of measurement capability. Option MS4640A-041 equips VectorStar to be the only VNA family with 70 kHz to 125 GHz noise figure measurement, enabled in part by a unique receiver optimized for measurements from 30 GHz to 125 GHz. With this introduction, Anritsu continues to display its VNA and millimeter-wave technology leadership.

Noise figure measurements enable test engineers to determine potential degradation of signal-to-noise ratio from system components in applications including radar, wireless communications, and digital communications. These engineers often have to balance the conflicting demands of designing higher performance requirements with less budget in shorter times. The Anritsu VectorStar family offers the unique blend of technical leadership, high performance, ease of use and flexibility.

An example of Anritsu's technical leadership is embodied in the receiver used to perform industry-first VNA-based noise figure measurements at 125 GHz. It incorporates a unique design focusing on improved noise performance and reduced sensitivity to source impedance. The result is a robust capability to make high quality microwave and millimeter-wave noise figure measurements on a wide variety of active devices.

For less experienced test engineers, configuring a noise figure test setup can be particularly challenging. It is often necessary to add pre-amplification and filtering in front of the measurement receiver to ensure there is sufficient sensitivity to make a quality measurement. If too little amplification is used, there may be excessive jitter from the instrument A/D converter.

If too much power or amplification is applied, compression can impact the measurements. These two constraints form the effective noise figure measurement range and can limit the flexibility a user has in choosing pre-amps and filters. [The MS4640A-041 option](#) takes advantage of the high performance VectorStar architecture to provide a wider noise figure measurement range and greater configuration flexibility. In addition, Anritsu enables the use of a simple, low-cost termination, rather than a specialized noise source, as part of the cold source noise figure measurement method. These advantages result in an easier to use, more flexible test system.

Noise figure measurement capability continues to add to the VectorStar toolbox for active device test. The VectorStar series already includes features like a unique gain compression capability where a user can display gain compression at up to 401 frequencies to characterize performance over a DUT's operating bandwidth in one step. If there is a need to perform active device testing at the wafer level, the VectorStar platform can utilize active and passive tuning of source and load impedances to help account for both fundamental and harmonic content ensuring optimum DUT performance during test.

The [MS4640A-041 option for noise figure measurement](#) capability will be available in approximately 8 weeks ARO. The 125 GHz receiver is model SM6609 will be available in approximately 16 weeks ARO.

About Anritsu

Anritsu Company 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. For more information, visit www.anritsu.com.

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