

## activCirk looks to Anritsu's VectorStar® broadband VNA system for its unsurpassed performance in device modeling.

### Customer Background:

Based in Newbury Park, California, activCirk is a design house specializing in the design and test of MMICs of all flavors using InP, GaN, and GaAs technologies. ActivCirk designs MMICs from S-band through 220GHz for both receive and transmit applications, as well as develops high-performance wideband designs in specific full-waveguide bandwidths including V-, E- and W-bands. The company also provides design and test services to industry-leading companies that help them reduce their time-to-market window.

### Challenge:

MMIC designers at activCirk need wide-band transistor and circuit models that are typically not provided by the foundry at the bandwidths required for millimeter wave MMIC design. The designer then requires a network analyzer that can make very accurate measurements at high speeds to get measurements over several entire wafers. A network analyzer that can combine linear, nonlinear and noise figure measurements with minimal external programming is extremely useful to rapidly produce statistical models of circuit and transistor performance.

### Solution:

The VectorStar broadband VNA system delivers wideband performance in a very unique way. Because there are no coaxial cables between the wafer probe and the VNA modules, the accuracy of the VNA over extremely broad bandwidths is unsurpassed. Utilizing patented nonlinear transmission line technology, VectorStar offers the widest frequency range in a single coaxial connection (70 kHz to 110/125/145 GHz). This is ideal for making broadband linear, nonlinear and noise figure measurements. In addition, VectorStar has intuitive and easy-to-use software, which enables users to get highly accurate measurements with minimal external programming. The ADC channels provide direct analog measurements that are synchronized to the system sweep, very useful for detector measurements.

Learn more about Anritsu's VectorStar Vector Network Analyzer at [www.anritsu.com](http://www.anritsu.com).



*"Anritsu delivers technical leadership again with the VectorStar. The VectorStar is adept at wide-band accurate measurement for device modeling as well as high speed product-centric testing for MMIC products. This VNA is an extremely powerful platform for large quantities of difficult test challenges."*

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