

TR Module Testing

Agilent Technologies and AAI Corporation

Fast, Accurate and Repeatable TR Module Testing

Demand for transmit receive (TR modules) modules has increased dramatically with the widespread use of dense, multi-element phased array antennas for modern radar systems used in land, sea and air applications. With this increased demand comes the need for fast, accurate and repeatable TR module testing.

- *TR module test solution*
- *For all transmit receive modules*
- *Combines accuracy with high throughput*
- *Comprehensive set of TR module measurements*
- *Full range of spectral and timing tests*
- *Order of magnitude increase in throughput*
- *Optional unique, triple-head fixture design*
- *Automatic calibration and verification software*
- *Self-test software*
- *Ease of use and flexibility*



The 9000 series of TR module test systems from AAI Corporation, performs the accurate measurements needed for engineering characterization with the throughput required for high-volume production environments.

The system combines instrumentation from Agilent Technologies with AAI's extensive test system

software, hardware and systems integration experience. Agilent test instruments used in the systems include the PNA-X vector network analyzer, the MXA signal analyzer, the MXG signal generator and a DSO oscilloscope.

With this instrumentation the systems can perform a comprehensive set of TR module measurements



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including: S-parameters (pulsed and CW), attenuation and phase control error, noise figure, gain and compression, isolation and cross-modulation, pulse profiling, power supply measurements and a full range of spectral and timing tests. The system can be integrated with thermal plates and chambers, test adapters or fixture relays, and other external devices. A graphical user interface facilitates troubleshooting during design verification and the systems are designed for the convenient removal of confidential program data to allow testing of classified modules.

Providing test throughput an order of magnitude better than previous

generations, the series also offers an optional unique, triple-head fixture allowing users to test two TR modules while loading a third to further reduce test time on the production line. The systems include automatic calibration and calibration verification software, which increase accuracy while reducing calibration cycles and enabling confidence checks. The systems' self-test software can also verify test station setup quickly and easily.

The 9000 Series provides the ease of use and flexibility required for engineering characterization applications, together with the throughput necessary to meet your high volume production needs.

System Components

Agilent Technologies

N5242A	PNA-X microwave network analyzer
N9020A	MXA signal analyzer
N5183A	MXG signal generator
DS07054A	DSO oscilloscope

AAI Corporation

9050A	0.5 to 50 GHz (low frequency to 0.1 GHz extension available)
9040A	0.5 to 40 GHz (0.1 GHz extension available)
9026A	0.5 to 26.5 GHz (0.1 GHz extension available)

To learn how this solution can address your specific needs please contact Agilent's solutions partner, AAI

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Printed in USA, October 7, 2011
5990-6446EN



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