

7700 Integrated Microwave Test Solution

A Complete Test Environment for Automated Production and Integration Test of RF Components and Modules.

A Complete RF Test Environment

- Delivered ready to test with a full-featured execution and development environment
- Full set of common RF measurements
- Fully integrated Device Under Test (DUT) control and power
- Fully integrated control of peripherals such as temperature chambers
- Architected to support ATE

Complex Device Testing Capable

- Frequency range 1 MHz to 6 GHz (expandable to 32 GHz)
- Complete measurement suite including S-parameters for full characterization of devices such as LNAs, VCOs, and transceiver modules
- Control of device states built into measurements

A True Synthetic Architecture

- Utilizes a common set of hardware for all stimulus and response functions
- Smaller footprint than traditional “rack and stack” instruments
- Mature system level calibration scheme
- Reduced hardware cost compared to full instrument-based test system
- New capability can be incrementally added at low cost with little impact to existing measurement sequences



Ready to Test Compact ATE Dramatically Reduces Cost of Test

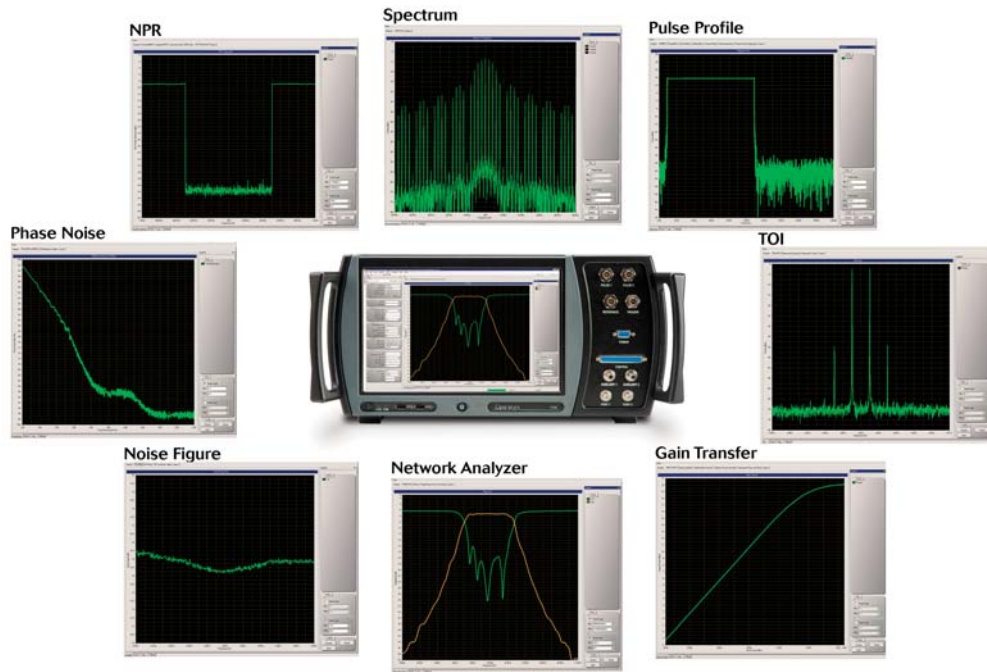
The cost of production testing does not end with the price of the hardware. In fact, ATE development and maintenance costs are often much greater than the initial hardware investment. Aeroflex understands the importance of reducing the total cost of test and has specifically designed the 7700 to do just that.

Unlike traditional rack and stack instruments, the 7700 is a synthetic solution that provides tight coupling of signal generation, measurements, and Device Under Test (DUT) control. This removes the additional software overhead and measurement processing necessary to make independent calls to several instruments and the DUT when executing a test. In the 10+ years of delivering similar synthetic solutions, Aeroflex has received customer feedback that this approach has consistently yielded a better than 4X improvement in measurement throughput over traditional instruments.

In addition, by providing a complete turnkey ATE solution, the 7700 saves device manufacturers months of test system development and integration time. Finally, calibration of the 7700 is handled at the system level, using traceable standards. This approach produces the best possible system performance and reduces the errors and overall system uncertainty associated with piecemeal calibrations. In addition system level calibration increases system availability and reduces support costs by eliminating the need for long calibration cycles, calibration services, and calibration equipment carts.



Capability of Several Instruments in a Single Package



Comprehensive ATE Solution:

The 7700 is a complete automated test system housed in an incredibly small footprint. The solution includes a fully-functional test executive called the Aeroflex Measurement Console (AMC). Using the production test sequences provided with the base model, the 7700 includes the capability to emulate the functionality of the following instrumentation:

- Vector signal generator
- Spectrum analyzer
- Vector network analyzer
- Oscilloscope
- Power meter
- Frequency counter
- Noise figure meter
- Microwave transition analyzer

But the 7700 does not just replace test equipment. It is a fully integrated ATE solution that has the capability to control all aspects of production test including the DUT, remote switching hardware, thermal chambers, etc.

Key Specifications:

- Frequency Range: 1 MHz to 6 GHz (expandable to 32 GHz)
- RF Modulation BW: 90 MHz
- Frequency Switching Times: <1 msec
- Output Power Range: >100 dB
- Phase Noise (2 GHz, 20 kHz offset): -115 dBc/Hz
- Residual Noise Floor: <-120 dBm
- Total Dynamic Range: >100 dB
- DANL (1 Hz res bandwidth)
 - 1 MHz to 1 GHz: -164 dBm/Hz
 - 1 to 3 GHz: -159 dBm/Hz
 - 3 to 6 GHz: -154 dBm/Hz

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