

SJ001A

WaveJudge Wireless Analyzer Toolset

The Best Wireless Troubleshooting Solution

SJ001A WaveJudge Wireless Analyzer Toolset, the first over-the-air monitor solution with real-time visibility into the interaction between protocol and physical layers in wireless transmissions, is modular, scalable, customizable, and cost effective.

The SJ001A WaveJudge Wireless Analyzer Toolset offers great capabilities and ease in testing and troubleshooting. The main features allow users to:

- Understand the interactions between the mobile station or user equipment and the base station at all layers
- Identify complex causes of interoperability problems
- Improve the performance of the overall wireless connection
- Verify base station behavior from an over-the-air interface, including complex antennae and modulation schemes
- Evaluate the impact on performance of MIMO, beam forming and scheduling
- Capture wireless conditions in the field for replay in the lab
- Accurately identify anomalies that affect throughput and delay

Building on the power of the capabilities of the solution, it is possible to customize the troubleshooting platform to address demanding and evolving challenges with greater ease and efficiency:

Multiple ports to test high-order of MIMO:

The SJ001A WaveJudge Wireless Analyzer Toolset can support up to 32 truly synchronized ports in each coherent set. Test 8x4, 8x2, or 4x4 MIMO configurations and incorporate multiple layers beyond the current two-layer scheme. For large-scale testing, up to 64 chassis (up to 256 modules) can be daisy-chained per system.

High bandwidth to test carrier aggregation:

The SJ001A WaveJudge Wireless Analyzer Toolset can support up to eight instances of CA with up to 800 MHz channels.



WaveJudge Wireless Analyzer Toolset features & benefits

Identify & analyze

- DL Assignment and UL grant analysis
- Scheduling errors
- DL/UL timing offsets
- Resource block assignments
- Subcarrier energy usage
- L1-L3 usage
- MIMO type and rank comparison
- MIMO decodes
- Handover issues
- Synchronization and reference signal errors
- Network entry failures

Solve

- Interference questions
- Cell synchronization
- Mobile to cell miscommunication
- Optimization and efficiency issues
- Finger pointing/engineering confusion
- Deployment delays

High memory for data capture:

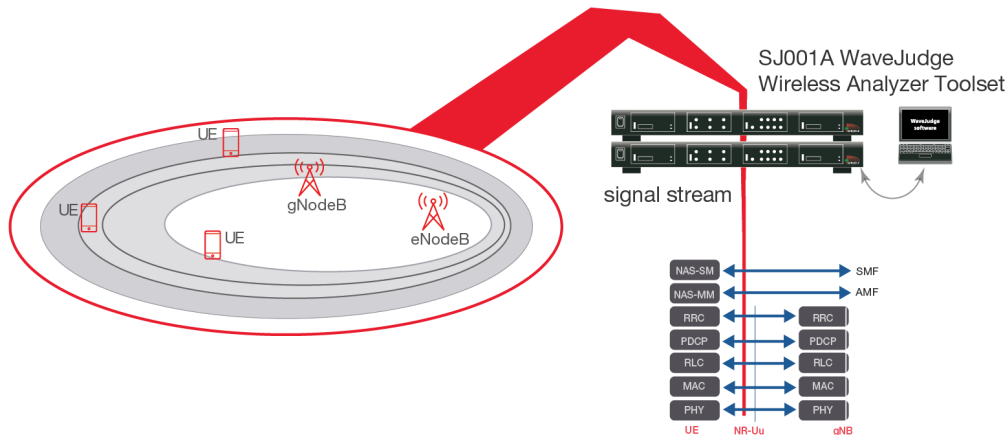
The SJ001A WaveJudge Wireless Analyzer Toolset RAM and SSD memory can store hours of IQ data, with flexible configuration options for tracking long-term trends or to isolate intermittent anomalies. Depending on your application, IQ captures can be invaluable in recreating the wireless channel and providing in depth physical analysis.

Large number of antennae:

The SJ001A WaveJudge Wireless Analyzer Toolset ports are truly synchronized, allowing you to avoid time-consuming tangents such as troubleshooting alignment issues between devices. Detection of transient errors regardless of the layer in which they occur.

The SJ001A WaveJudge Wireless Analyzer Toolset isolates problem areas by taking advantage of real-time triggering on lower- and upper-layer events, errors, messages, and message content.

Other advanced features include programmable frequency, useful when developing systems for multiple markets; an internal systemwide master clock to ensure proper sample count and timestamp alignment regardless of module or chassis density and configuration; and the latest in DSP cores, FPGA density, and technology-specific accelerators, to power through real-time testing.



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