DATASHEET

Spirent 8100 5G Mobile Device Test System

Fast, comprehensive performance testing of 5G mobile device connectivity, voice, video, data and location technologies with fully automated, customizable turn-key solutions for R&D, private network, operator acceptance, and standards-based testing.

The 8100 5G Mobile Device Test System is an automated, highly scalable family of test solutions that addresses a wide range of voice, data and location technology testing needs and budgets. The system's expandable architecture assures your investment is future-proofed as technologies and test requirements evolve. Whatever the testing need, the system provides customizable pre-defined tests based on proven methodologies, as well as rich development tools for custom test creation. The 8100 5G Mobile Device Test System helps meet the testing needs of private network, Operator Acceptance and R&D markets. In addition, the 8100 provides industry-leading comprehensive performance and standards-based location testing for multiple A-GNSS constellations.

The 8100 5G Mobile Device Test System brings real-world network and radio channel conditions into the lab using the most advanced, flexible network and channel emulation tools available, enabling complete characterization of device performance beyond minimum certification requirements. Superior performance contributes to a positive end-user experience, helping to reduce device returns and operators' customer churn.

Benefits

- **Reduce time to market—**run more tests in less time on a single platform; quickly identify and debug issues and faster test resolution
- **Reduce device returns and customer churn through improved device quality—**go beyond conformance to identify performance issues under real-world conditions
- **Address the entire life cycle of testing needs with a single solution—**R&D, DVT, Conformance, Benchmarking/ Evaluation, Acceptance, Applications, and Regression
- **Purchase only the capability you need, when you need it—**call reliability, data performance, A-GNSS; offered with turnkey and user-customizable test modules and scenarios
- **Future-proof platform—**same platform for 3GPP to be released 5G mMTC, URLLC, besides current eMBB offering FDD & TDD NR, option 3x (FDD & TDD LTE) and option 2, DL 4 streams, UL 2 streams, 256QAM for both UL and DL.

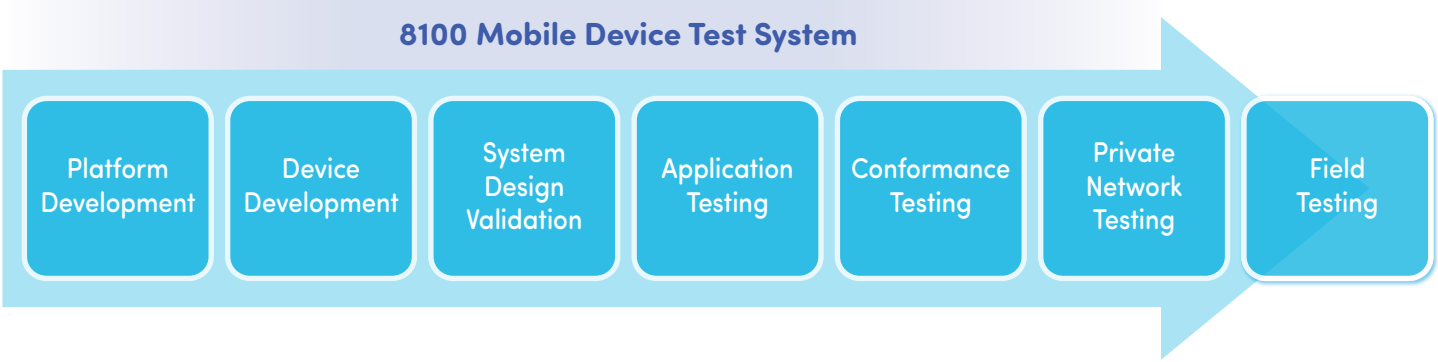
Applications

Manufacturers:

- Research & Development
- Design Verification
- System Integration
- Performance Analysis
- Benchmarking
- Regression Test
- A-GPS Conformance/
- Certification Test

Operators:

- Pre-launch Evaluation



The 8100 5G Mobile Device Test System addresses multiple stages of the device life cycle.

Addresses a Wide Range of Testing Needs

The 8100 5G Mobile Device Test System offers a wide range of scalable solutions for network operators, device manufacturers, and test labs to address their R&D, validation, and standards-based testing needs for mobile device location, connectivity, voice, video, and data.

Research & Development Testing

It is common for today's research and development testing to require complex, cumbersome script-based programming that can take hours, if not days, to complete. With Spirent's 8100 5G Mobile Device Test System, custom design of test cases is made simple without compromising functionality.

A complete set of 8100 development tools helps building and testing complex scenarios with multiple cells and channel impairments such as fading and noise for more advanced R&D testing including UE automation. From protocol and functional testing to performance testing, the 8100 5G Mobile Device Test System provides powerful tools and solutions to help reduce development cost and time to market.

Standards-Based (3GPP/GCF/PTCRB) Conformance Testing

The 8100 5G Mobile Device Test System offers multiple conformance testing solutions for location technologies.

The 8100 Location Technology solution (LTS) leads the industry in testing A-GNSS devices and chipsets with complete coverage of standards-based A-GNSS tests across multiple constellations: GPS, GLONASS, BeiDou, and Galileo.

Operator Device Acceptance Testing

The 8100 5G Mobile Device Test System offers operators and their device vendors fully-automated performance benchmarking tools that help shorten device validation and approval cycle time. For rapid benchmarking of mobile devices and chipsets, the 8100 Radio Access performance test packs offer complete solutions with pre-configured, customizable tests, based on proven methodologies. These tests provide a diverse range of NR radio and IMS, ePC/5GC environments as well as multi-cell mobility scenarios for automated testing of 5G device performance.

For operators who need greater flexibility or more in-depth analysis, 8100 Development Library solutions offer powerful tools with an easy-to-use UI-based script engine for rapid creation, editing and analyzing of custom tests. With the 8100 Development Library, tests can be setup and executed in just a few minutes. Powerful results analysis capabilities enable rapid device benchmarking or device issue identification and debug.

The 8100 5G Mobile Device Test System also offers a range of solutions for operator acceptance of 5G devices that includes both performance and protocol tests.

Scalable Platform Test Areas and Configurations

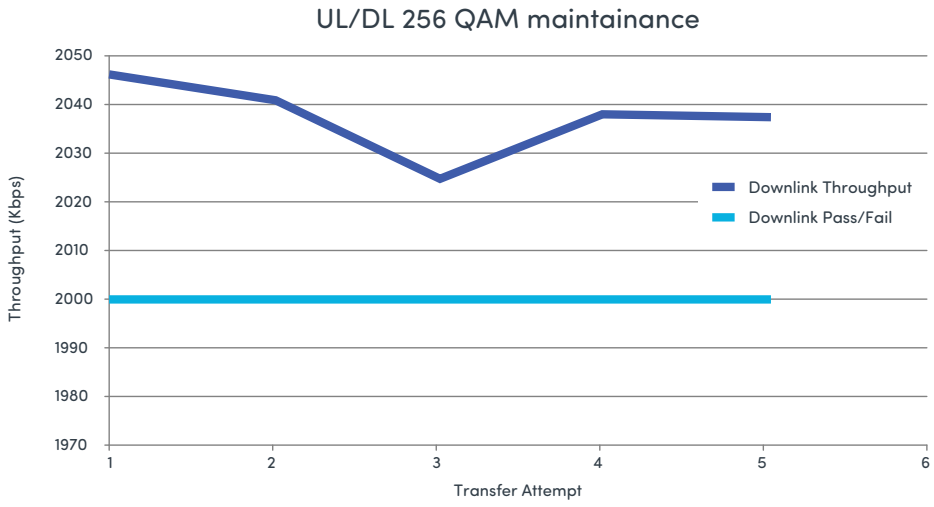
The 8100 5G Mobile Device Test System's scalable architecture enables the system to be expanded beyond initial testing needs. Users can select the platform that best suits their current testing needs with the opportunity to add other test areas in the future.

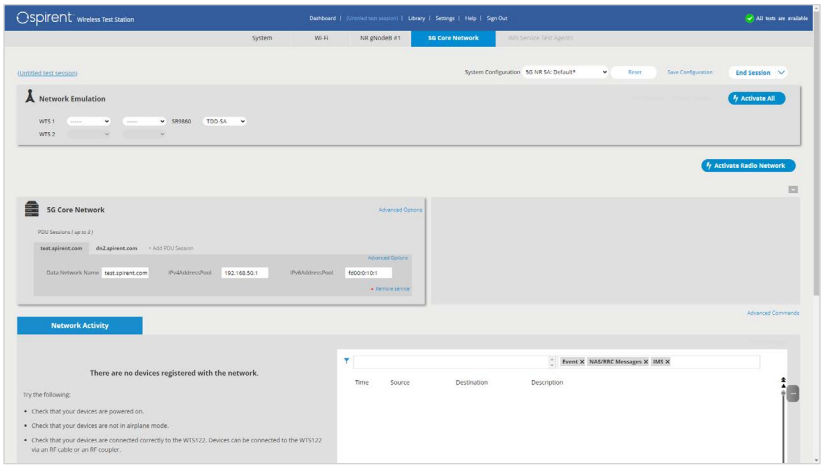
Advanced, Configurable Test Automation with Powerful Analysis & Reporting

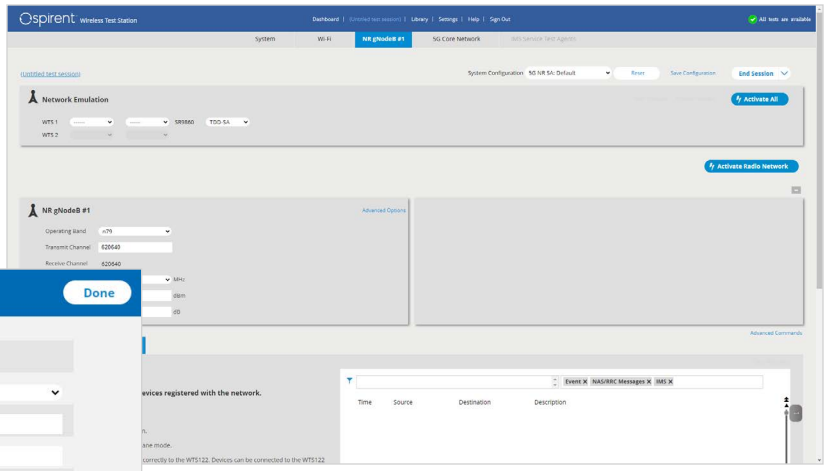
Recognized by leading network operators and mobile device manufacturers globally, the 8100 5G Mobile Device Test System makes use of the industry's leading test executive software, with its best-in-class User Interface (UI) and extensive results reporting and analysis capabilities.

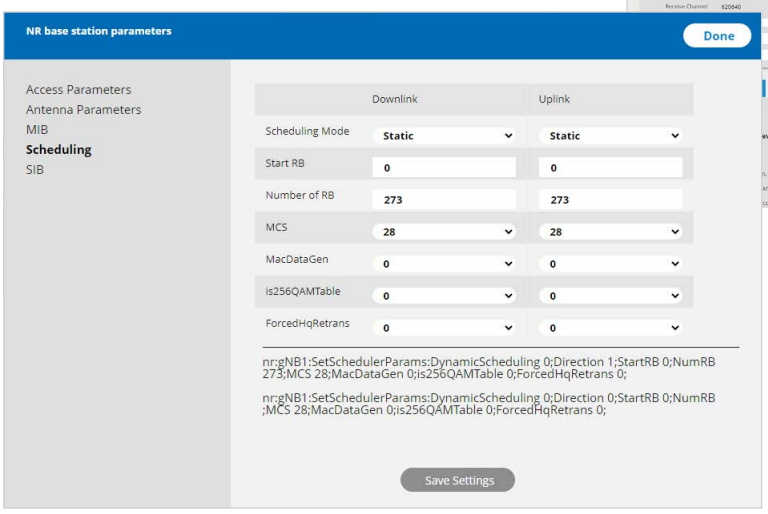
Spirent's UI-based 8100 Development Library tools enable fast and easy creation of custom automated tests for functional verification, integration, regression and pre-compliance. They are also ideally suited to meeting the in-depth analysis requirements of operators' specific validation and UE acceptance test needs. The tools enable users to configure network topologies and to set RF conditions and cell parameters in one easy step with the Network Configuration tool.

A Step Creation Editor tool enables a definable number of test steps to be created, edited and executed, with regression testing at any stage.









UL/DL 256 QAM maintainance

Lab Testing Helps Reduce Field Test Time and Cost

The cost of finding and fixing device issues in a live network can be very high. Lab testing with real-world simulation capability, used earlier in the device development and verification cycle, can tremendously improve the reliability of results and help reduce the costs associated with field/drive testing. With the option for integrated RF fading and noise, users can easily recreate a real-world RF environment in the lab. The custom-designed tools help quick modeling and modification of test conditions such as AWGN SNR, multi-path, cell power and much more.

The 8100 5G Mobile Device Test System helps to validate 5G devices on private networks in the lab environment before commercial launch, not only for connectivity validation but also for overall private network solution validation with close to live network emulation, from various RF environments to end-to-end application validation.

Ready for new 5G technologies

The 8100 5G Mobile Device Test System provides a seamless integration from current eMBB offerings to URLLC and eMTC to satisfy lab device testing needs while preserving a customer's initial investment. Reference the Spirent 8100 5G Mobile Device Test System brochure for more information.

Ordering Information

Due to the modularity and wide range of available 8100 Mobile Device Test System configurations, please contact your regional Spirent sales representative for detailed ordering information.

Spirent Global Services

Spirent Global Services provides a variety of professional services, support services and education services — all focused on helping customers meet their complex testing and service assurance requirements. For more information, visit the Global Services' website at www.spirent.com/gs or contact your Spirent sales representative.

About Spirent

Spirent Communications (LSE: SPT) is a global leader with deep expertise and decades of experience in testing, assurance, analytics and security, serving developers, service providers, and enterprise networks. We help bring clarity to increasingly complex technological and business challenges. Spirent's customers have made a promise to their customers to deliver superior performance. Spirent assures that those promises are fulfilled.

For more information visit: www.spirent.com

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