

Spirent Wireless Test Station

The Spirent Wireless Test Station (WTS) is a compact instrument designed for multiple radio access technology device-to-device testing in one unit. It is a key component of Spirent Elevate, a comprehensive approach to wireless device application test solutions, and enables realistic interoperability testing of mobile devices to uncover issues in a lab environment, before deployment in the field can compromise user experience.

The WTS looks different from most other test instruments, with a small footprint and a browser-based user interface that presents information intuitively on a tablet or laptop. The simplified interface has been tailored for application development teams tasked with testing complex network scenarios and is pre-configured with the specifications required for major carriers' networks. For interactive testing, call flow activity for all devices is displayed and logged in real time for ease in debugging and historical analysis purposes. Alternatively, the WTS can be integrated with Spirent's industry-leading 8100 Mobile Device Test System in support of automated carrier acceptance test plans.

Key Features

- Co-location of two cells with independent configurations enables device-to-device LTE (FDD+TDD, including FDD 2CC carrier aggregation), UMTS, and Wi-Fi interoperability testing on one instrument
- Network emulation is easily configured for major carriers' networks, including IMS modeling
- Tight integration with ProLab IMS Testing Suite enables true and accurate representation of IMS call setup at all stack levels including configuring Quality of Service (QoS) for VoLTE
- Simulation of realistic network scenarios via built-in bi-directional IP network impairments or integration with an external fader for RF impairments
- Web-enabled user interface allows internet access from anywhere; users can reserve resources as needed for dedicated test time



Wireless Test Station with
two devices under test

The Wireless Test Station is a compact test instrument that supports multiple devices simultaneously and addresses the interoperability challenges inherent with rapidly evolving network technologies.

Applications

- Device-to-device interoperability for Voice, Video, OTT, and M2M applications over LTE (FDD+TDD), UMTS, and Wi-Fi
- Supports LTE-Unlicensed for IoT device testing
- Functional, performance, and adversarial testing
- Emergency call scenarios over LTE and Wi-Fi
- IMS/RCS conformance
- Interactive testing tailored for application development teams
- Automated carrier acceptance testing via integration with Spirent's industry-leading 8100 Mobile Device Test System

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

Technical Specifications

RF Connectors

Front panel	Rx/Tx1, Rx/Tx2 (Radio 1 & 2)	Duplex or simplex Rx RF port, SMA(F)
	Tx1, Tx2 (Radio 1 & 2)	Simplex Tx RF ports, SMA(F)
	RF port return loss	15 typical
	RF Tx level range	-43 to -120 dBm RSTP (up to 3.5 GHz) -50 to -120 dBm (3.5 GHz to 6GHz)
	RF Tx level accuracy	+/- 2.5dB typical
	Rx/Tx port damage input level	+30dBm
Rear panel	Wi-Fi1, Wi-Fi2, Wi-Fi3	Combined input/output RF port, RPSMA(F)

Control Interfaces

Rear panel	LAN	2 x Ethernet RJ-45 10/100/1000 Mbps
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Other Interfaces

Right panel	USB	2 x USB 3.0 type A connector
Rear panel	USB	2 x USB 3.0 type A connector
	External display	1 x VGA Sub-D15 connector
	LAN	2 x RJ-45 10 GigE
	Reference clock in, reference clock out, trigger out (x2), trigger in (x2) PPS out (x2)	

Functionality

Network technology	Two cells; each can be configured as LTE-FDD (including 2CC carrier aggregation), LTE-TDD, or UMTS (3G)
LTE frequency range	400MHz - 6GHz
Wi-Fi modes; frequency bands	802.11a/b/g/n/ac; 2.4GHz, 5GHz
IMS and VoLTE capabilities	RoHc, SPS, QCI, Up to eight dedicated bearers, QoS management, IPSec
Device capacity	Supports up to 2 simultaneous devices
Logging	Core network, RRC, and MAC logging synchronized across layers and cells
Software upgrades	Remote via LAN

Environment

Operation ranges	Temperature: 0°C to 35°C (60°F to 95°F) Humidity: 5% to 85% (non-condensing)
Storage ranges	Temperature: -10°C to 50°C (15°F to 120°F) Humidity: 5% to 85% (non-condensing)
Audible noise	Less than 45dBA @ one meter radius (under typical office environment conditions and sound pressure levels)
Power supply input range	100-240VAC / 50-60Hz / 4.5A
Power consumption	60W (typical)
Dimensions	348.0(W) x 109.6(H) x 307.3(D), all units in mm 13.7(W) x 4.3(H) x 12.1(D), all units in inches
Weight	6.8kgs (15 lbs)

See the *Spirent Elevate* data sheet for more information on use case applications for the WTS.

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