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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight S8705A RF Device Characterization Test Set

Agilent Keysight S8705A RF RRM DVT and Conformance Toolset The Keysight S8705A RF/RRM DVT and Conformance Toolset is part of the Network Emulation Solutions portfolio. OEM technical overview 7120-1092 and the S8705A product page describe an integrated 5G NR and C-V2X RF/RRM test solution covering 3GPP TS 38.521-1 through 38.521-4 (RF), TS 38.533 (RRM), and TS 36.521 (C-V2X/LTE sidelink) on FR1 and FR2 using the E7515B UXM 5G wireless test platform. 5G NR RF/RRM design verification, GCF/PTCRB conformance, regulatory RF, C-V2X based on LTE, and CTIA FR2 SISO OTA performance. The Keysight S8705A RF/RRM DVT and Conformance Toolset is part of the Network Emulation Solutions portfolio. OEM technical overview 7120-1092 and the S8705A product page describe an integrated 5G NR and C-V2X RF/RRM test solution covering 3GPP TS 38.521-1 through 38.521-4 (RF), TS 38.533 (RRM), and TS 36.521 (C-V2X/LTE sidelink) on FR1 and FR2 using the E7515B UXM 5G wireless test platform. 5G NR RF/RRM design verification, GCF/PTCRB conformance, regulatory RF, C-V2X based on LTE, and CTIA FR2 SISO OTA performance.



MODEL

**Agilent / Keysight
S8705A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

S8705A

LISTING

<https://aumictechlabs.com/products/s8705a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight S8705A RF/RRM DVT and Conformance Toolset is a solution designed for testing and characterization of 5G NR and C-V2X devices. It has access to Radio Frequency (RF) and Radio Resource Management (RRM) conformance test cases as defined by 3GPP specifications, ensuring that mobile devices perform as expected on live networks. This toolset is an approved platform for device certification by organizations like the Global Certification Forum (GCF) and PTCRB. It supports both Time Division Duplexing (TDD) and Frequency Division Duplexing (FDD) across all relevant bands in both sub-6GHz (FR1) and millimeter wave (FR2) frequencies. The S8705A is part of Keysight's 5G Network Emulation Solution portfolio and is built upon the Keysight E7515B UXM 5G wireless test platform, leveraging its advanced RF measurement and processing capabilities. This integration allows for testing in adjacent bands, generation of interferers, and fading without the need for additional instruments.

Key Features and Capabilities:

- * **3GPP Compliance:** Provides comprehensive access to GCF and PTCRB RF test cases in conformance mode, adhering to 3GPP TS 38.521-1-4 (5G NR RF), 3GPP TS 38.533 (5G NR RRM), and 3GPP TS 36.521 (C-V2X based on LTE).
- Frequency Range Support:** Covers both FR1 (sub-6GHz) and FR2 (mmWave) frequencies, supporting TDD and FDD modes.
- RRM and Performance Testing:** Assesses the device's ability to maintain solid and reliable connections, including handovers between cells, and validates performance under ideal or impaired radio conditions.
- Design Verification Test (DVT) Mode:** Allows for customization of test cases beyond 3GPP requirements, enabling deeper performance exploration and competitive analysis. This mode permits adding new test points, modifying channel bandwidth, and adjusting test frequencies.
- Conformance Mode:** Offers test cases validated by industry certification bodies like GCF and PTCRB, as well as regulatory bodies across different regions.
- Cellular Vehicle-to-Everything (C-V2X) Support:** Includes test cases for C-V2X communication based on LTE and LTE sidelink formats.
- Release 16 and Beyond:** Offers validated test coverage for 3GPP Release 16 features, including Power Saving, Capacity and Coverage, and Mobility and Positioning. It also supports Non-Terrestrial Network (NTN) conformance testing.
- CTIA FR2 SISO OTA Performance:** Includes coverage for the CTIA FR2 SISO OTA (Over-the-Air) Performance test plan.
- Modular and Scalable Platform:** Features a flexible software and hardware architecture that can scale with other Keysight solutions, such as the S8707A 5G RF/RR Carrier Acceptance Toolset.
- Automation and Debugging:** Supports unattended test campaign execution with device automation and advanced logging features for rapid debugging of test failures.
- Approximately 80% Test Case Coverage:** In its Benchtop configuration, the toolset provides access to roughly 80% of total validated test cases for both FR1 and FR2.

Technical Specifications: The S8705A RF/RRM DVT and Conformance Toolset leverages the capabilities of the Keysight E7515B UXM 5G Wireless Test Platform. Specific technical parameters such as frequency range, power levels, modulation schemes, and measurement accuracies are inherently tied to the underlying E7515B platform and are detailed within its respective documentation. The S8705A software toolset configures and utilizes these hardware capabilities for specific 3GPP test case execution.

Interfaces: The S8705A toolset integrates with the Keysight E7515B UXM 5G Wireless Test Platform. Interfacing would typically involve standard network emulation interfaces for device control and data transfer, along with RF connections for signal transmission and reception. Specific interface details are dependent on the overall system configuration and the E7515B platform.

Physical: Information

regarding the specific physical dimensions, weight, or environmental operating conditions of the S8705A software toolset is not separately d

S8705A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	RF/RRM DVT and conformance toolset
Series Family	Keysight 5G Network Emulation Solutions (NES)
Literature Number	Keysight technical overview 7120-1092
Network Emulator	E7515B UXM 5G wireless test platform
Nr Rf Spec	3GPP TS 38.521-1 through 38.521-4
Nr Rrm Spec	3GPP TS 38.533
Cv2x Spec	3GPP TS 36.521 (C-V2X based on LTE and LTE sidelink)
Frequency Range	FR2 millimeter wave
Duplex Modes	TDD and FDD
Certification Bodies	GCF and PTCRB approved test platform
Dvt Mode	unvalidated 3GPP-based cases with customizable methods, limits, bandwidths, and frequencies
Conformance Mode	industry-validated cases plus regulatory body test plans
In Band Scope	transmitter and receiver RF performance
Out Of Band Scope	spurious emissions, blocking, and ACLR-class adjacent-band tests
Interferers	blocking interferers including AWGN generated in the UXM
Fading	signal fading without additional instruments in the stated UXM configuration
Rrm Scope	stationary and mobility connection robustness including inter-RAT handovers
Performance Scope	downlink demodulation under ideal or impaired radio conditions; CSI reporting tests
Benchtop Coverage	approximately 80 percent of total validated test cases in the benchtop configuration (FR1 and FR2)
Ota Plan	CTIA FR2 SISO OTA performance test plan coverage
Ntn	NTN listed among S8705A product-page capability highlights
Companion Toolset	S8707A 5G RF/RRM carrier acceptance toolset for MNO supplementary plans

PARAMETER	VALUE
Logging	advanced logging for protocol/RF debug
Platform	modular scalable software and hardware NES platform

S8705A Specifications

PARAMETER	VALUE
Applications	5G NR RF/RRM design verification, GCF/PTCRB conformance, regulatory RF, C-V2X based on LTE, and CTIA FR2 SISO OTA performance.
Key Features	DVT configuration with customizable unvalidated 3GPP-based cases
Conformance configuration validated at GCF and PTCRB	E7515B UXM 5G provides in-band, out-of-band, fading, AWGN, and interferers without extra boxes
Technical Specifications	Instrument Type: RF/RRM DVT and conformance toolset

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

performance.	
Key Features	
DVT configuration with customizable unvalidated 3GPP-based cases	
Conformance configuration validated at GCF and PTCRB	
E7515B UXM 5G provides in-band, out-of-band, fading, AWGN, and interferers without extra boxes	
TDD and FDD; FR1 sub-6 GHz and FR2 mmWave	
Scales with S8707A RF/RRM carrier-acceptance toolset	
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Nr Rrm Spec	3GPP TS 38.533
Cv2x Spec	3GPP TS 36.521 (C-V2X based on LTE and LTE sidelink)
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Frequency Range 2	FR2 millimeter wave
Duplex Modes	TDD and FDD
Certification Bodies	GCF and PTCRB approved test platform
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Notes

Architecture and 3GPP/certification rows from Keysight S8705A RF/RRM DVT and Conformance Toolset technical overview 7120-1092 and the matching Keysight product page. UXM RF power, fading bandwidth, and chamber dimensions are configuration-specific and are not invented.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.