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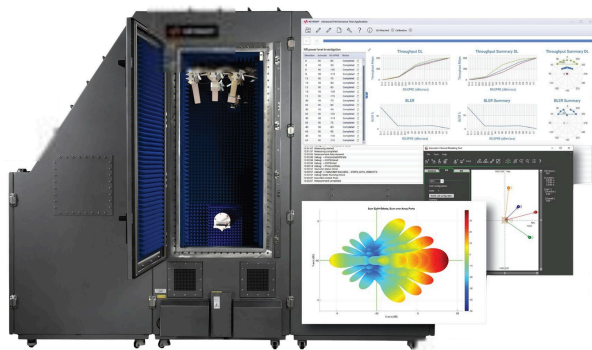
Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight S8708A Advanced Communication Test Set

Agilent Keysight S8708A 5G Advanced Performance Test Toolset The Keysight S8708A Advanced Performance Test Toolset is part of the 5G Network Emulation Solution portfolio. OEM technical overview 3120-1396 describes an end-to-end wireless device test solution that integrates a high-capacity PROPSIM 5G channel emulator, a UXM 5G network emulator, a multiprobe OTA chamber, and mmWave access components so chipset and device makers can evaluate 5G performance under realistic lab fading. 5G NR FR1/FR2 MIMO OTA, dynamic mmWave beam management, 3D spatial channel modeling, and LTE/NR cell emulation with geometry-based stochastic channel models (GSCM). The Keysight S8708A Advanced Performance Test Toolset is part of the 5G Network Emulation Solution portfolio. OEM technical overview 3120-1396 describes an end-to-end wireless device test solution that integrates a high-capacity PROPSIM 5G channel emulator, a UXM 5G network emulator, a multiprobe OTA chamber, and mmWave access components so chipset and device makers can evaluate 5G performance under realistic lab fading. 5G NR FR1/FR2 MIMO OTA, dynamic mmWave beam management, 3D spatial channel modeling, and LTE/NR cell emulation with geometry-based stochastic channel models (GSCM).



MODEL

**Agilent / Keysight
S8708A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

S8708A

LISTING

<https://aumictechlabs.com/products/s8708a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight S8708A 5G Advanced Performance Test Toolset is a solution designed for evaluating and optimizing the performance of 5G wireless devices within a controlled laboratory environment. This integrated system caters to chipset manufacturers, device developers, mobile operators, and test laboratories, enabling them to test devices under realistic conditions and accelerate their market launch. The S8708A is part of Keysight's broader 5G Network Emulation Solution portfolio, supporting the entire device development lifecycle from initial design through to acceptance and manufacturing. The toolset is particularly adept at addressing the complexities of millimeter-wave (mmWave) frequencies and over-the-air (OTA) testing, which are critical for 5G New Radio (NR). It facilitates advanced performance testing, including beam management under fading and blocking conditions, and validates device data throughput performance using various channel models. The S8708A is engineered to meet stringent industry standards and operator requirements, ensuring devices comply with the latest specifications.

Key Features and Capabilities

The Keysight S8708A 5G Advanced Performance Test Toolset integrates several key hardware and software components to provide a seamless testing experience. This includes the high-capacity PROPSIM 5G Channel Emulator, the UXM 5G Network Emulator, and an Over-The-Air (OTA) chamber with multi-probe capabilities. The system also incorporates mmWave access components and an MXA Signal Analyzer, contributing to its ability to handle advanced mmWave performance testing.

System Components and Integration:

- UXM 5G Wireless Test Platform:** A highly integrated signaling test platform providing multi-format stack support, processing power, and abundant RF capabilities.
- PROPSIM 5G Channel Emulator:** Offers high-capacity RF channel emulation, enabling spatial fading with multiple active probes for comprehensive OTA testing.
- MXA Signal Analyzer:** Utilized for efficient power measurements, rapid display updates, and fast sweeps.
- 3D Multi-Probe Anechoic Chamber:** Facilitates Over-The-Air (OTA) testing, essential for mmWave frequencies.
- Remote Radio Heads (RRHs):** Integrated into the system for comprehensive testing.
- Test System PC:** Hosts the necessary software for test execution, analysis, and reporting.

Testing Capabilities:

- 5G NR FR1 and FR2 Testing:** Supports testing for both sub-6 GHz and mmWave frequency ranges, including NR standalone and non-standalone configurations.
- MIMO and Massive MIMO Performance:** Enables verification of device performance across various Massive MIMO configurations, including up to NR 8CC + 5CC LTE in spatial fading at Sub-6GHz.
- Beam Management Testing:** Allows R&D teams to test dynamic beam management in 3D spatial fading channels at mmWave frequencies. It includes predefined and customizable test cases for beam management performance, simplifying complex mmWave testing.
- Data Throughput Verification:** Validates device data throughput performance under various channel models, including CDL-x defined in 3GPP 38.901.
- Channel Modeling:** Employs geometric spatial channel models with full customization of parameters through the PROPSIM GCM 5G Tool. It enables the creation of custom scenarios, including different massive MIMO antenna arrays and device antenna beam patterns.
- Pre-3GPP and Standards Compliance:** Offers a verified test set developed prior to the release of 3GPP FR2 MIMO OTA specifications, aiding in readiness for upcoming 3GPP and CTIA test plans.
- Custom Test Case Development:** Provides common protocol scripting and geometric channel modeling tools that can be used to build custom test cases.

Key Performance Indicators (KPIs):

- Downlink Physical Layer Throughput:** Measured via Bit Error Rate (BER) and Block Error Rate (BLER).
- Device Beam Management Measurements:** Assesses the performance of

beam management functionalities. Throughput and Device Mobility: Evaluates overall data throughput and device movement

S8708A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	5G advanced performance test toolset (network emulation plus OTA)
Series Family	Keysight 5G Network Emulation Solutions (NES)
Literature Number	Keysight technical overview 3120-1396
Channel Emulator	high-capacity PROPSIM 5G
Network Emulator	UXM 5G wireless test platform
Ota Chamber	multiprobe over-the-air chamber
MmWave Access	included mmWave access components
Radio Access	NR FR1, NR FR2, and LTE cells
Fading Models	advanced GSCM geometry-based stochastic channel models
Study Item	3GPP Performance Study Item MIMO OTA in TR 38.827 (FR1 and FR2 methods)
Beam Test	dynamic beam management in a 3D spatial fading channel at mmWave
Spatial Modeling	3D spatial channel modelling with antenna library
Array Tool	antenna array tool for modeling arrays and beams
Custom Tests	user-created tests in addition to the verified set
Workflow	early design through acceptance in the NES portfolio
Dut Class	5G chipsets and devices; also used by operators and test laboratories
Ota Geometry	multiple beams arriving at the DUT from different directions in a 3D OTA environment
Kpi Use	evaluate KPIs under advanced channel conditions on software and product releases
Phased Arrays	3D MIMO OTA validation of phased antenna arrays at FR2
Mobility	stress-test under 3D fading and mobility conditions
Control	automated lab test solution (Keysight NES software stack)
Prototype Use	expose early prototypes to realistic multi-beam OTA conditions
Fr1 Band Class	sub-6 GHz NR frequency range 1
Fr2 Band Class	millimeter-wave NR frequency range 2

PARAMETER	VALUE
Document Scope	components and functionality of the S8708A toolset per 3120-1396

S8708A Specifications

PARAMETER	VALUE
Key Features	Integrates PROPSIM 5G channel emulator and UXM 5G network emulator
Multiprobe OTA chamber plus mmWave access components	Verified FR2 MIMO OTA set developed ahead of 3GPP TR 38.827
Technical Specifications	Instrument Type: 5G advanced performance test toolset (network emulation plus OTA)

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 Test Toolset

Overview

The Keysight S8708A Advanced Performance Test Toolset is part of the 5G Network Emulation Solution portfolio. OEM technical overview 3120-1396 describes an end-to-end wireless device test solution that integratesahigh-capacity PROPSIM 5G channel emulator, a UXM 5G network emulator, a multiprobe OTA chamber, and mmWave access components so chipset and device makers can evaluate 5G performance under realistic lab fading.

Applications

5G NR FR1/FR2 MIMO OTA, dynamic mmWave beam management, 3D spatial channel modeling, and LTE/NR cell emulation with geometry-based stochastic channel models (GSCM).

Key Features

Integrates PROPSIM 5G channel emulator and UXM 5G network emulator
Multiprobe OTA chamber plus mmWave access components
Verified FR2 MIMO OTA set developed ahead of 3GPP TR 38.827
3D spatial channel modeling with antenna library and array/beam tool
Custom tests in addition to the verified suite

Technical Specifications

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Notes

Identity and architecture from Keysight S8708A 5G Advanced Performance Test Toolset technical overview 3120-1396. Chamber probe counts, PROPSIM fading bandwidths, and UXM RF power tables are configuration-specific and are not invented here.

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

Aumictech

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