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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight P9002A

Agilent Keysight P9002A Parallel Parametric Test System The Keysight P9002A is a parallel parametric test system in the P9000 Series for high-throughput semiconductor wafer test. OEM brochure 3121-1083 and the November 2021 product announcement describe a license-based per-pin architecture with up to 100 output channels, each providing voltage, current, capacitance, and frequency measurement when licensed, SPECS software compatibility with 4080 Series programs, and a Linux (Red Hat Enterprise Linux) system controller. The Keysight P9002A is a parallel parametric test system in the P9000 Series for high-throughput semiconductor wafer test. OEM brochure 3121-1083 and the November 2021 product announcement describe a license-based per-pin architecture with up to 100 output channels, each providing voltage, current, capacitance, and frequency measurement when licensed, SPECS software compatibility with 4080 Series programs, and a Linux (Red Hat Enterprise Linux) system controller. Parametric process control, wafer-acceptance, and R&D device characterization in semiconductor manufacturing lines using 4080-class probe cards via an adapter.



MODEL

**Agilent / Keysight
P9002A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

P9002A

LISTING

<https://aumictechlabs.com/products/p9002a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight P9002A is a parallel parametric test system engineered for high-throughput semiconductor wafer testing. It bridges serial testing and advanced per-pin parallel testing with flexible, license-based configurations. The system delivers cost-effective, productive parametric characterization across diverse device types and test scenarios.

Technical Specifications

Measurement Pins: Up to 100 SPGU Output Channels: 4 channels maximum Voltage Measurement Resolution: 2 μ V minimum Current Measurement Resolution: 0.1 fA minimum Measurement Functions: Voltage, current, capacitance, and frequency (per pin, as licensed) Test Capabilities: IV measurement, capacitance measurement, frequency measurement, pulsed measurement

Key Features

Parallel and synchronous/asynchronous testing via SPECS Parallel Test Extension Source Monitor Units available in Medium Power and High Power configurations Optional modules: digital multimeter, LCR meter, high-voltage semiconductor pulse generator, spectrum analyzer Industrial PC controller running Red Hat Enterprise Linux Intuitive test application development environment with flexible sequence and flow control 36-month software subscription service included Offline debug environment for test plan development

System Architecture

The P9002A comprises a system cabinet and test head designed for integration with production-line probers. Temperature extension and 4080 probe card adapter options are available for test head customization.

Compatibility & Integration

The system provides software compatibility with Keysight 4080 Series parametric testers, enabling reuse of existing test programs, test plans, and probe cards. Data correlation with the 4080 Series is proven. Migration from 4080 environments is streamlined. Keysight SPECS-FA (Factory Automation) version supports semiconductor wafer production and factory automation workflows.

P9002A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Parallel parametric wafer test system
Series Family	Keysight P9000 / P9001A / P9002A
Maximum Channels	up to 100 per-pin output channels
Per Pin Functions	voltage, current, capacitance, and frequency (as installed and licensed)
Controller Os	Linux Red Hat Enterprise Linux
Application Software	Keysight SPECS (Semiconductor Process Evaluation Core Software)
Parallel Extension	SPECS Parallel Test Extension, synchronous or asynchronous
Legacy Compatibility	Keysight 4080 Series parametric testers (programs, test plans, data correlation)
Probe Card Path	4080-compatible probe card adapter
Throughput Claim	improved throughput versus 4080 Series including fast capacitance measurement
Package Form	test head plus system cabinet for production probers
Hardware Warranty Initial	first 12 months; extendable to 36 months (brochure service structure)
Software Subscription Initial	first 36 months as required (brochure)
Literature	Keysight P9002A Parallel Parametric Test System brochure 3121-1083
Announcement	Keysight news release 30 November 2021 (NR21149)
Predecessor Context	spans 4080 serial parametric test through P9001A per-pin parallel
Parallel Sequence	parallel test sequence and flow control in SPECS
Algorithm Interface	parallel test algorithm interface for scalable algorithms
Factory Automation	optional software for wafer production / factory automation
Measurement Class	DC parametric plus capacitance and frequency per pin
Prober Use	semiconductor wafer production line probers
License Structure	add functions/channels by license rather than fixed full-pin hardware
Services	installation, repair, calibration, and AE consulting as professional services

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.

Specifications	
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PARAMETER	VALUE
Instrument Type	Parallel parametric wafer test system
Series Family	Keysight P9000 / P9001A / P9002A
Maximum Channels	up to 100 per-pin output channels
Per Pin Functions	voltage, current, capacitance, and frequency (as installed and licensed)
Controller Os	Linux Red Hat Enterprise Linux
Application Software	Keysight SPECS (Semiconductor Process Evaluation Core Software)
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Notes

Channel count, per-pin functions, SPECS/4080 compatibility, and Linux controller from Keysight P9002A brochure 3121-1083 and NR21149. Per-pin voltage/current/capacitance accuracy tables are configuration/license-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.