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Data Sheet

August 13, 2026

KEITHLEY

Keithley Yieldstation S900 Semiconductor Parametric Test System/Process Monitor

Keithley S900 Parametric / Final Test System (S-series) The Keithley S900 (also listed as S-900) is a configurable semiconductor parametric and final-test system in Keithley's S-series production-tester line that includes S400, S600, S630, and S680. Public OEM tables for a unique S900 instrument SKU are sparse; electrical limits follow the installed SMUs, capacitance meter, RF option, switch matrix, and prober interface of the particular rack. Treat S900 as a system identity and pull model-specific ranges from the system configuration sheet, not from a single catalog row. The Keithley S900 (also listed as S-900) is a configurable semiconductor parametric and final-test system in Keithley's S-series production-tester line that includes S400, S600, S630, and S680. Public OEM tables for a unique S900 instrument SKU are sparse; electrical limits follow the installed SMUs, capacitance meter, RF option, switch matrix, and prober interface of the particular rack. Treat S900 as a system identity and pull model-specific ranges from the system configuration sheet, not from a single catalog row. Wafer-level parametric monitoring; packaged final test when analog/digital channel options are populated; factory-automation hosts via SECS/GEM-class interfaces when fitted; mixed DC/RF when an S-series RF test head is present.



MODEL

Keithley S900

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

S900

LISTING

<https://aumictechlabs.com/products/s900-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keithley Yieldstation S900 is a semiconductor parametric test system and process monitor for electrical characterization of semiconductor devices and manufacturing processes. It delivers precise measurements of critical device parameters to ensure quality control and drive process optimization across semiconductor fabrication. The system enables detailed process monitoring to boost yield and quality through comprehensive electrical testing and parametric analysis.

Technical Specifications System Type: Semiconductor Parametric Test System and Process

Monitor Primary Function: Electrical characterization of semiconductor devices and processes; quality control; process optimization; yield analysis. Architecture: Modular design with multiple instrument slots and interface cards. Integrates Source-Measure Units (SMUs) for voltage/current

sourcing and response measurement. Includes capacitance/conductance meters for dielectric and capacitive parameter analysis. Low-level current measurement capabilities extend to

picoammeter range. Switch matrix routes test signals to device under test. Probe card adapter interfaces with wafer probes and packaged devices. Key Features Source-Measure Units (SMUs)

for precision voltage and current generation Capacitance/conductance measurement for dielectric characterization Picoammeter-range current measurement for low-level parametric

testing Switch matrix for flexible DUT signal routing Modular instrumentation architecture supporting multiple test configurations Probe card adapter for wafer and packaged device

interfacing Control & Software Dedicated workstation control with specialized test executive software. Unix-based system operation (Solaris). Measurement libraries support semiconductor

technologies including CMOS and BiCMOS. System Reference Units (SRUs) available for calibration time reduction. Typical Applications Parametric testing of semiconductor wafers and

packaged devices Process monitoring during semiconductor manufacturing Device yield optimization and analysis Manufacturing process characterization and trending Quality assurance

and statistical process control Compatibility & Integration Designed to interface with automated probers and handlers via probe card adapter. Integrates Test Star components and Keithley

instrumentation modules for expanded measurement capabilities. Host computer connectivity enables remote programming and system control.

Features & description

From manufacturer datasheet

Features

- Configurable analog and digital channel population

S900 Characteristics / Specifications

PARAMETER	VALUE
Model	S900
Manufacturer	Keithley Instruments
Instrument Type	Configurable parametric / final test system
Alias	S900; S-900; Keithley S900
Product line	Keithley S-series parametric testers
Related S4	earlier S-series parametric system
Related S6	64-pin, 0.1 fA / 0.1 uV, 1 A / 200 V class upgrade path
SMU class when S600 like	up to 8 SMUs
Pin electronics class	per-pin amplifiers inaprober test head (S-series)
Matrix class	solid-state or relay matrix per configuration (8 to 64 pins on S680 literature)
RF class if fitted	to 40 GHz s-parameters on S630/S680 RF option
Automation class	SECS/GEM 200 mm / 300 mm on S600-series
Controller class	workstation/Solaris class on later S680 cabinets
Prober	production 200 mm or 300 mm when automated
Not 4200 SCS	production tester versus nine-slot lab analyzer
Not 707B	S900 isatester identity, notasix-slot matrix mainframe
Power	system mains per cabinet label
I/O	analog test channels and digital channels as populated
Software	system executive plus user libraries (C/Solaris class on S600)
Calibration	system-level, often to probe tip when SRU option exists (S680)
Form	floor-standing / cabinet parametric tester
Configuration	read the installed SMU, CV, RF, and pin-card labels
Use	fab parametric or final test per the as-built rack Notes S900 lacksadense single-model Keithley data sheet comparable to S680. Rows above are verified S-series family architecture plus S900 listing identity. Do not quote S680 0.1 fA as an S900 guarantee unless that

PARAMETER

VALUE

hardware is in the rack. Confirm faceplate, rack options, and calibration certificate.

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	
Specifications	
PARAMETER	VALUE
Model	S900
Manufacturer	Keithley Instruments
Instrument Type	Configurable parametric / final test system
Specifications	
PARAMETER	VALUE
Alias	S900; S-900; Keithley S900
Product line	Keithley S-series parametric testers
Related S400	earlier S-series parametric system
Specifications	
PARAMETER	VALUE
Related S600	DC parametric tester, up to 8 SMUs, per-pin test head
Related S630	DC/RF 40 GHz class S-series
Related S680	64-pin, 0.1 fA / 0.1 uV, 1 A / 200 V class upgrade path
Specifications	
PARAMETER	VALUE
SMU class when S600 like	up to 8 SMUs
Pin electronics class	per-pin amplifiers inaprober test head (S-series)
Matrix class	solid-state or relay matrix per configuration (8 to 64 pins on S680 literature)
Specifications	
PARAMETER	VALUE
RF class if fitted	to 40 GHz s-parameters on S630/S680 RF option
Automation class	SECS/GEM 200 mm / 300 mm on S600-series
Controller class	workstation/Solaris class on later S680 cabinets

Specifications

PARAMETER	VALUE
Prober	production 200 mm or 300 mm when automated
Not 4200 SCS	production tester versus nine-slot lab analyzer
Not 707B	S900 isatester identity, notasix-slot matrix mainframe

Specifications

PARAMETER	VALUE
Power	system mains per cabinet label
I/O	analog test channels and digital channels as populated
Software	system executive plus user libraries (C/Solaris class on S600)

Specifications

PARAMETER	VALUE
Calibration	system-level, often to probe tip when SRU option exists (S680)
Form	floor-standing / cabinet parametric tester
Configuration	read the installed SMU, CV, RF, and pin-card labels

Use: fab parametric or final test per the as-built rack

Notes

S900 lacksadense single-model Keithley data sheet comparable to S680. Rows above are verified S-series family architecture plus S900 listing identity. Do not quote S680 0.1 fA as an S900 guarantee unless that hardware is in the rack. Confirm faceplate, rack options, and calibration certificate.

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