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Data Sheet

August 12, 2026

KEYSIGHT / AGILENT

Keysight (Agilent) N7951A Advanced Power System – Dynamic DC Power Supply, 20 V, 50 A, 1000 W

Keysight / Agilent N7951A Advanced Power System Dynamic DC Power Supply The N7951A is an APS N7900-series 1 kW dynamic DC power supply: 0–20 V / 50 A. Adds high-speed transient generation, smart triggering, and two-quadrant operation versus the N6900 DC-only siblings. Demonstrated interrupt pulse fall time <200 μ s in Keysight literature. The N7951A is an APS N7900-series 1 kW dynamic DC power supply: 0–20 V / 50 A. Adds high-speed transient generation, smart triggering, and two-quadrant operation versus the N6900 DC-only siblings. Demonstrated interrupt pulse fall time <200 μ s in Keysight literature.



MODEL

**Keysight / Agilent
N7951A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N7951A

LISTING

<https://aumictechlabs.com/products/n7951a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N7951A Advanced Power System is a dynamic DC power supply engineered for automated test equipment (ATE) applications demanding high-speed dynamic sourcing and precision measurement. Delivering 1000 W across 20 V and 50 A outputs, this 1U unit accelerates test throughput to speeds 100 times faster than standard system power supplies, with command processing under 2 ms and programming speeds as low as 500 μ s. Technical Specifications Output and Power Ratings Output voltage: 20 V Output current: 50 A Power rating: 1000 W (1 kW)

Input voltage: 240 VAC Single output configuration Rack space: 1U Performance Metrics
Command processing speed: < 2 ms Programming speed (up/down): up to 500 μ s Test speed
improvement: up to 100x faster than standard supplies Adjustable measurement rate to balance
speed and accuracyKey Features Measurement and Monitoring Dual voltage and current
measurement with DMM-like accuracy. Additional measurements include power, peak power, watt
hour, and amp hour. Two-Quadrant Operation Enables smooth transitions between positive and
negative current. Standalone operation supports 10% rated current two-quadrant capability; full
two-quadrant operation requires the N7909A power dissipater unit. Programmable current limits
and waveforms support both sourcing and loading for power storage test applications. Scalability
Built-in APS paralleling allows configuration up to 10 kW of total power with equal current sharing
via three-wire connection, maintaining CV or CC operating modes across paralleled units.
Arbitrary Waveform Generation Capable of generating voltage and current transients, including 10
ms interrupt pulses with fall times under 200 μ s.Interfaces and Software Connectivity GPIB, USB,
and LAN communication interfaces. Software and Accessories Free APS Power Assistance
Software provides advanced display, setup, and measurement functions. Optional N7908A Black-
Box Recorder captures measurement data, trigger events, and status bits in real time. BenchVue
Software enabled for PC-based control.Typical Applications Power device characterization,
battery and energy storage testing, transient load simulation, and multi-channel parallel power
delivery in high-throughput test environments.

Features & description

From manufacturer datasheet

Features

• Voltage: 0 to 20 V • Current: 0 to 50 A • Power: 1000 W (1 kW) • Current sink @10%: -5 A; @100% (dissipater): -50 A • CV ripple rms: 1 mV; CV p-p: 9 mV • Load regulation V: 0.75 mV; I: 3 mA • V program/measure accuracy: 0.03% + 3 mV class • I program/measure accuracy: 0.1% + 15 mA (improved with Opt 301) • Transient recovery: 100 μ s; interrupt example fall time <200 μ s • Digitizer: 18-bit; sample rate up to 200 kS/s; current range to 2.25 $\times$ rated • Two-quadrant operation; smart triggering; output sequencing / adjustable slew • Parallel operation supported • Options: 301 low-current meas; 302 digitizers/logging; 303 list/arb

Applications

• Dynamic ATE power profiles and interrupt pulses • Battery/charger simulation with fast V/I changes • Inrush and dynamic current capture with digitizers

N7951A Characteristics / Specifications

PARAMETER	VALUE
Model	N7951A
Manufacturer	Keysight / Agilent
Instrument Type	Advanced Power System Dynamic DC Power Supply
Alias	N7951A; Keysight N7951A
Voltage	0 to 20 V
Current	0 to 50 A
Power	1000 W (1 kW)
CV ripple rms	1 mV; CV p-p: 9 mV
Load regulation V	0.75 mV accuracy: 0.03% + 3 mV accuracy: 0.1% + 15 mA
Transient recovery	100 μ s; interrupt example fall time <200 μ s
Digitizer rate	up to 200 kS/s Notes Specs from Keysight APS N6900/N7900 Series data sheet (N7951A / 20 V column). Confirm installed options on the unit.
Current sink @10%	-5 A; @100% (dissipater): -50 A
V program/measure accuracy	0.03% + 3 mV class
I program/measure accuracy	0.1% + 15 mA (improved with Opt 301)
Digitizer	18-bit; sample rate up to 200 kS/s; current range to 2.25 $\times$ rated
Options	301 low-current meas; 302 digitizers/logging; 303 list/arb

N7951A Specifications

PARAMETER	VALUE
Key Features	- Voltage: 0 to 20 V
Technical Specifications	Model: N7951A
Notes	Specs from Keysight APS N6900/N7900 Series data sheet (N7951A / 20 V column). Confirm installed options on the unit.

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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Load regulation V	0.75 mV
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I accuracy	0.1% + 15 mA
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Model	N7951A
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Instrument Type	Advanced Power System Dynamic DC Power Supply
Alias	N7951A; Keysight N7951A
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Notes

Specs from Keysight APS N6900/N7900 Series data sheet (N7951A / 20 V column). Confirm installed options on the unit.

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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.