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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 59501A HP-IB Isolated Digital-to-Analog Power Supply Programmer

Agilent HP 59501A HP-IB Isolated DAC Power Supply Programmer The Agilent / HP 59501A is an HP-IB isolated digital-to-analog programmer used to remotely program DC power supplies and other analog-controlled instruments. OEM 59501A documentation describes isolated analog outputs controlled over HP-IB for ATE power-supply control. Remote analog programming of DC power supplies, bias sources, and instruments needing isolated DAC control from an HP-IB computer. HP-IB controlled isolated DAC Analog programming outputs Isolation from digital ground ATE power supply programmer role Compact system module packaging The Agilent / HP 59501A is an HP-IB isolated digital-to-analog programmer used to remotely program DC power supplies and other analog-controlled instruments. OEM 59501A documentation describes isolated analog outputs controlled over HP-IB for ATE power-supply control. Remote analog programming of DC power supplies, bias sources, and instruments needing isolated DAC control from an HP-IB computer. HP-IB controlled isolated DAC Analog programming outputs Isolation from digital ground ATE power supply programmer role Compact system module packaging



MODEL

**Agilent / Keysight
59501A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

59501A

LISTING

<https://aumictechlabs.com/products/59501a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 59501A is a precision digital-to-analog converter that programs HP power supplies over the HP-IB interface. It translates digital commands into programmable analog voltage outputs, enabling automatic control of DC voltage and current from connected power supplies. Built-in 600 V isolation protects instrumentation on the HP-IB bus from potential damage originating from power supply outputs. The unit maintains near-zero output until programmed, ensuring stable initialization.

Technical Specifications

Interface: HP-IB (Hewlett-Packard Interface Bus)

Isolation: 600 V between HP-IB lines and output terminals

Output Modes: Unipolar: 0 to +0.999 V or 0 to +9.99 V Bipolar: -1 V to +0.998 V or -10 V to +9.98 V

Programmable Ranges: 0-1 V and 0-10 V (software selectable)

Output Current: Up to 10 mA with automatic current limiting

Programming Response Time: Full-scale voltage change in approximately 250 μ s from data receipt

Accuracy (at 23°C $\pm$ 5°C): Unipolar mode: 0.05% M + 0.25% P Low range unipolar mode: 0.01% M + ...

Key Features

- Programmable High/Low range control for enhanced resolution and flexibility
- Front-panel zero adjust to correct small power supply offsets
- Full-scale adjust control to set maximum power supply output
- Automatic current limiting protects equipment and programmer
- Direct use as a low-level DC signal source
- Safe initial state with output near zero before programming

Typical Applications

- Automated DC power supply voltage and current programming
- Low-level analog signal sourcing in test and measurement systems
- Precision control of HP power supply parameters in automated test sequences

Compatibility & Integration

Designed to interface with HP power supplies for seamless integration into HP-IB instrumentation networks. The 600 V isolation architecture protects connected equipment from high-voltage transients.

59501A Characteristics / Specifications

PARAMETER	VALUE
Model	59501A
Instrument Type	isolated DAC power supply programmer
Manufacturer	HP Agilent Keysight
Interface	HP-IB IEEE-488
Output Type	isolated analog program voltages
Isolation	digital to analog isolation
Form Factor	system programmer module
Operating Temperature Class	0 C to 55 C
Storage Temperature Class	minus 40 C to 75 C
Line Power	powered from host or AC per build
Humidity Class	non condensing
Channels	multi DAC channel class
Resolution Class	binary DAC resolution
Accuracy Class	programming accuracy class
Duty	continuous ATE
Grounding	isolated analog commons
Cooling	ambient
Mass Class	compact module
Calibration	DAC cal
Safety	isolation barrier
Remote	HP-IB full control
Connectors	analog program outputs
Compatibility	HP supply analog program inputs
Bandwidth Class	DC programming
Settling Class	DAC settling time

PARAMETER	VALUE
Noise Class	low noise program output
Bandwidth	Class: DC programming
Storage temperature	Class: minus 40 C to 75 C
Operating temperature	Class: 0 C to 55 C
Humidity	Class: non condensing

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	Class: minus 40 C to 75 C
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Compatibility	HP supply analog program inputs
Bandwidth Class	DC programming
Settling Class	DAC settling time
Noise Class	low noise program output Notes Identity from Agilent/Keysight 59501A HP-IB Isolated Digital-to-Analog Power Supply Programmer listings. Exact output voltage span and DAC bits are in the 59501A operating note.

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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Notes

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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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<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
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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.