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Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 6623A Precision System Power Supply, 80W, 3 outputs

HP Agilent 6623A Triple Output System DC Power Supply The Agilent 6623A combines one 40 W low-voltage, one 80 W low-voltage, and one 40 W high-voltage dual-range output in a single GPIB mainframe. OEM manual corners cover 7 V/5 A or 20 V/2 A (40 W LV), 7 V/10 A or 20 V/4 A (80 W LV), and 20 V/2 A or 50 V/0.8 A (40 W HV). Three-rail mixed-voltage DUT bias, compact ATE power for boards needing both low-voltage high-current and higher-voltage rails. Output 3 High Range: 0 to 50 V, 0 to 0.8 A The Agilent 6623A combines one 40 W low-voltage, one 80 W low-voltage, and one 40 W high-voltage dual-range output in a single GPIB mainframe. OEM manual corners cover 7 V/5 A or 20 V/2 A (40 W LV), 7 V/10 A or 20 V/4 A (80 W LV), and 20 V/2 A or 50 V/0.8 A (40 W HV). Three-rail mixed-voltage DUT bias, compact ATE power for boards needing both low-voltage high-current and higher-voltage rails. Output 3 High Range: 0 to 50 V, 0 to 0.8 A Voltage Programming Accuracy 40 W Low Column: 0.06% + 19 mV



MODEL

HP / Agilent 6623A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

6623A

LISTING

<https://aumictechlabs.com/products/6623a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 6623A is a triple-output precision linear DC power supply rated at 80 W total, designed for benchtop and automated test system integration. This 3U package delivers fully

isolated outputs with dual-range capability, allowing flexible configuration across low and high voltage/current combinations. The unit sinks full rated current through its active downprogrammer, enabling rapid voltage transitions. Programming accuracy reaches $0.06\% + 19 \text{ mV}$ on voltage (low range) and $0.16\% + 50 \text{ mA}$ on current (low range), while readback voltage accuracy achieves $0.016\% + 2 \text{ mV}$ (low range). Output ripple and noise stay below $500 \text{ }\mu\text{V RMS}$ and 3 mV peak-to-peak in constant voltage mode. Two outputs can be configured in series or parallel for increased voltage or current capability. Programmable over-voltage and over-current protection, plus electronic calibration, are accessible via GPIB. The 6623A executes power-on self-test via GPIB command and supports SCPI commands with VXIplug&play drivers for system integration.

Technical Specifications

Total Power Output: 80 W across three fully isolated outputs

Output Configurations: Low range 0–7 V/5 A (40 W), 0–20 V/2 A (40 W), 0–7 V/10 A (70 W); high range 0–20 V/2 A (40 W), 0–50 V/0.8 A (40 W), 0–20 V/4 A (80 W)

Voltage Programming Accuracy: $0.06\% + 19 \text{ mV}$ (low range); 50 mV (high range)

Voltage Readback Accuracy: $0.016\% + 2 \text{ mV}$ (low range); $0.016\% + 3.5 \text{ mV}$ (high range)

Current Programming Accuracy: $0.16\% + 50 \text{ mA}$ (low range); $20\text{--}100 \text{ mA}$ (high range)

Ripple and Noise: $500 \text{ }\mu\text{V RMS}$, 3 mV peak-to-peak (constant voltage, $20 \text{ Hz--}20 \text{ MHz}$)

Load Regulation (Voltage): $0.5\text{--}2 \text{ mV}$

Load Cross Regulation (Voltage): $0.25\text{--}1 \text{ mV}$

Line Regulation (Voltage): 0.01%

Floating Voltage: $\pm 240 \text{ V DC}$ from chassis ground

Form Factor: 3U rack height

Key Features

- Dual-range outputs with automatic range selection
- Series/parallel output combination for enhanced flexibility
- Fast-acting active downprogrammer with full-current sinking
- Programmable OV and OC protection
- GPIB interface with SCPI command support
- VXIplug&play driver compatibility
- Electronic calibration via GPIB
- Power-on self-test capability (GPIB-initiated)

Typical Applications

Complex system integration, ATE (automated test equipment), component characterization, and bench-level R&D requiring precision multi-rail power delivery with remote control and monitoring.

Compatibility & Integration

GPIB connectivity enables integration into instrument racks and automated test frameworks. VXIplug&play drivers streamline software development and system configuration.

6623A Characteristics / Specifications

PARAMETER	VALUE
Number of Outputs	3
Output 1 Type	40 W Low Voltage
Output 1 Low Range	0 to 7 V, 0 to 5 A
Output 1 High Range	0 to 20 V, 0 to 2 A
Output 2 Type	80 W Low Voltage
Output 2 Low Range	0 to 7 V, 0 to 10 A
Output 2 High Range	0 to 20 V, 0 to 4 A
Output 3 Type	40 W High Voltage
Output 3 Low Range	0 to 20 V, 0 to 2 A
Output 3 High Range	0 to 50 V, 0 to 0.8 A
CV Ripple RMS All	500 μ V
CV Ripple Peak to Peak All	3 mV
CC Ripple RMS All	1 mA
Load Regulation Voltage	2 mV
Voltage Programming Accuracy 40 W Low Column	0.06% + 19 mV
Voltage Programming Accuracy 80 W	0.06% + 50 mV
DC Floating Voltage	$\pm$ 240 Vdc
Input Power	550 W max, 720 VA max
Size	425.5 mmWx 132.6 mmHx 497.8 mmDNet Weight: 17.4 kg (38 lb)
Command Processing Time	7 ms typical
GPIB	Yes
Regulatory	UL1244; IEC 61010-1; CE

6623A Specifications

PARAMETER	VALUE
HP Agilent 6623A Triple Output System DC Power Supply	Overview
Applications	Three-rail mixed-voltage DUT bias, compact ATE power for boards needing both low-voltage high-current and higher-voltage rails.
Mix of 40 W and 80 W boards	Linear low-noise regulation
Technical Specifications	Number of Outputs: 3
Notes	Output mix and V/I corners from Agilent 6621A-6627A Operating Manual Table 1-1 / Figure 1-1; accuracy columns from 6620A Series datasheet.

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	
Technical Specifications	
PARAMETER	VALUE
Number of Outputs	3
Output 1 Type	40 W Low Voltage
Output 1 Low Range	0 to 7 V, 0 to 5 A
Output 1 High Range	0 to 20 V, 0 to 2 A
Output 2 Type	80 W Low Voltage
Output 2 Low Range	0 to 7 V, 0 to 10 A
Output 2 High Range	0 to 20 V, 0 to 4 A
Output 3 Type	40 W High Voltage
Output 3 Low Range	0 to 20 V, 0 to 2 A
Output 3 High Range	0 to 50 V, 0 to 0.8 A
CV Ripple RMS All	500 uV
CV Ripple Peak to Peak All	3 mV
CC Ripple RMS All	1 mA
Load Regulation Voltage	2 mV
Voltage Programming Accuracy 40 W Low Column	0.06% + 19 mV
Voltage Programming Accuracy 80 W	0.06% + 50 mV
DC Floating Voltage	±240 Vdc
Input Power	550 W max, 720 VA max
Size	425.5 mm W x 132.6 mm H x 497.8 mm D
Net Weight	17.4 kg (38 lb)
Command Processing Time	7 ms typical
GPiB	Yes
Regulatory	UL1244; IEC 61010-1; CE
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Notes

Output mix and V/I corners from Agilent 6621A-6627A Operating Manual Table 1-1 / Figure 1-1; accuracy columns from 6620A Series datasheet.

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 ·
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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.