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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 3478A 5.5 digit DMM with HP-IB interface

HP 3478A 5.5 Digit Programmable Digital Multimeter The Hewlett-Packard 3478A is a microprocessor-based, HP-IB programmable 5.5-digit (to 3.5-digit selectable) five-function digital multimeter for bench and system use. It measures DC volts from 100 nV sensitivity to 300 V full scale, true-RMS AC volts to 300 kHz class, 2-wire and 4-wire ohms from 100 uohm sensitivity to 30 Mohm, and DC/AC current to 3 A. Electronic calibration replaces mechanical adjustments. Fast autorange preserves throughput across wide dynamic ranges. The Hewlett-Packard 3478A is a microprocessor-based, HP-IB programmable 5.5-digit (to 3.5-digit selectable) five-function digital multimeter for bench and system use. It measures DC volts from 100 nV sensitivity to 300 V full scale, true-RMS AC volts to 300 kHz class, 2-wire and 4-wire ohms from 100 uohm sensitivity to 30 Mohm, and DC/AC current to 3 A. Electronic calibration replaces mechanical adjustments. Fast autorange preserves throughput across wide dynamic ranges. HP-IB automated system DCV/ohms metrology



MODEL

HP / Agilent 3478A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

3478A

LISTING

<https://aumictechlabs.com/products/3478a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 3478A is a 5.5-digit digital multimeter engineered for benchtop and automated test environments. It delivers DC voltage, true RMS AC voltage and current, and 2- and 4-wire

resistance measurements through an HP-IB interface. Selectable resolution modes - 3.5, 4.5, and 5.5 digits - allow users to trade measurement speed for noise rejection and precision. The 4.5-digit mode achieves 130 dB noise rejection with 35 readings/second; the 5.5-digit mode delivers 100 nV resolution. Closed-box electronic calibration eliminates mechanical adjustments and supports both manual front-panel and automated HP-IB control.

Technical Specifications

Measurement Functions: DC Voltage: 30 mV to 300 V (100 nV sensitivity) AC Voltage (true RMS): 300 mV to 300 V, up to 300 kHz bandwidth, 4:1 crest factor DC Current: 300 mA, 3 A ranges AC Current (true RMS): 300 mA, 3 A ranges, up to 20 kHz bandwidth Resistance (2- and 4-wire): 30 Ω to 30 M Ω (100 $\mu\Omega$ sensitivity)

Performance: Basic DC voltage accuracy: $\pm(0.0034\%$ of reading + 2 counts) Measurement rates: up to 90 readings/second (3.5-digit), 35 readings/second (4.5-digit with 130 dB noise rejection) AC line rejection: 50, 60 Hz $\pm 0.1\%$ Display: 5.5-digit LED

Input Specifications: DCV input impedance: 10 G Ω (≤ 3 V); 10 M $\Omega \pm 1\%$ (30 V, 300 V) ACV input impedance: 1 M Ω shunted by < 60 pF Overvoltage protection: ± 350 V peak (Hi to Lo), ± 500 V peak (Hi or Lo to Earth Ground) Resistance open-circuit voltage: 6.5 V Current burden: 0.1 V (300 mA), 1 V (3 A)

Key Features Closed-box electronic calibration - no internal adjustments required Built-in self-test capabilities HP-IB programmable interface for system integration Voltmeter Complete output for scanner synchronization Low cost of ownership through automated calibration

Typical Applications Automated test environments and data acquisition systems Precision DC and AC measurements in production test High-resolution resistance and current characterization Systems requiring noise-rejection and fast measurement cycling

Compatibility & Integration HP-IB (IEEE-488) interface enables remote programming and automated measurement sequencing. Voltmeter Complete output synchronizes with multiplexer systems for rapid multi-channel testing.

3478A Characteristics / Specifications

PARAMETER	VALUE
Model	3478A
Manufacturer	Hewlett Packard (Agilent / Keysight lineage)
Instrument Type	5.5 digit programmable digital multimeter
Alias	HP 3478A; Agilent 3478A
Maximum Digits	5.5
Selectable Digits	5.5, 4.5, 3.5
DCV Sensitivity	100 nV (30 mV range)
DCV Full Scale	300 V
DCV Ranges	30 mV to 300 V
DCV Basic Accuracy Class	plus/minus (0.0034 percent reading plus 2 counts) on 3 V class (Table 1-1 / cal literature)
DCV Input Resistance Low Ranges	greater than 10 Gohm on 30 mV, 300 mV, 3 V
DCV Input Resistance High Ranges	10 Mohm plus/minus 1 percent on 30 V and 300 V
ACV Response	true RMS
ACV Crest Factor	4 to 1 at full scale
ACV Ranges	300 mV to 300 V
ACV Bandwidth	20 Hz to 100 kHz (300 kHz on 30 V range class)
ACV Input Impedance	1 Mohm plus/minus 1 percent parallel less than 75 pF class
Ohms Sensitivity	100 uohm (30 ohm range)
Ohms Full Scale	30 Mohm
Ohms Ranges	30 ohm to 30 Mohm
Ohms Open Circuit Voltage	less than 6.3 V (less than 6.5 V class listings)
Ohms Test Current 30 ohm to 3 kohm	1 mA
Ohms Test Current 30 kohm	100 uA
Ohms Test Current 300 kohm	10 uA
Ohms Test Current 3 Mohm	1 uA

PARAMETER	VALUE
Ohms Test Current 30 Mohm	100 nA
DCI Ranges	300 mA and 3 A
DCI Sensitivity	1 uA (300 mA range)
ACI Ranges	300 mA and 3 A
ACI Bandwidth	20 Hz to 20 kHz
Current Burden Full Scale	less than 900 mV
Current Shunt Maximum	0.3 ohm class
Current Protection	3 A 250 V fuse
Power Consumption	25 VA maximum
Line Voltage Options	100 / 120 / 220 / 240 V AC
Line Frequency	48 Hz to 440 Hz (NMRR specs at 50/60 Hz options)
Remote Interface	HP-IB (IEEE-488)
Calibration	electronic (no mechanical adjustments)
Bandwidth	20 Hz to 100 kHz (300 kHz on 30 V range class)

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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DCV Input Resistance Low Ranges	greater than 10 Gohm on 30 mV, 300 mV, 3 V
DCV Input Resistance High Ranges	10 Mohm plus/minus 1 percent on 30 V and 300 V
ACV Response	true RMS
ACV Crest Factor	4 to 1 at full scale
ACV Ranges	300 mV to 300 V
ACV Bandwidth	20 Hz to 100 kHz (300 kHz on 30 V range class)
ACV Input Impedance	1 Mohm plus/minus 1 percent parallel less than 75 pF class
Ohms Sensitivity	100 uohm (30 ohm range)
Ohms Full Scale	30 Mohm
Ohms Ranges	30 ohm to 30 Mohm
Ohms Open Circuit Voltage	less than 6.3 V (less than 6.5 V class listings)
Ohms Test Current 30 ohm to 3 kohm: 1 mA	
Specifications	
PARAMETER	VALUE
Ohms Test Current 30 kohm	100 uA

PARAMETER	VALUE
Ohms Test Current 300 kohm	10 uA
Ohms Test Current 3 Mohm	1 uA
Ohms Test Current 30 Mohm	100 nA
DCI Ranges	300 mA and 3 A
DCI Sensitivity	1 uA (300 mA range)
ACI Ranges	300 mA and 3 A
ACI Bandwidth	20 Hz to 20 kHz
Current Burden Full Scale	less than 900 mV
Current Shunt Maximum	0.3 ohm class
Current Protection	3 A 250 V fuse
Power Consumption	25 VA maximum
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Notes

Specs from HP 3478A Operating and Service / TM 11-6625-3071-14 specification tables and operating characteristics. Confirm installed line option (315/316/325/326/335/336/345/346). Full accuracy tables vary by digits and warm-up; use faceplate/certificate for cal limits.

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.