

KEYSIGHT TECHNOLOGIES (AGILENT HP)

34465A

The Keysight 34465A is a high-performance 6½ digit Truevolt digital multimeter (DMM) offering exceptional measurement accuracy, speed, and resolution. Equipped with a 4.3-inch color graphics display, it provides advanced analysis capabilities including trend charts and histograms. Designed as a direct successor to the industry-standard 34401A, the 34465A features reading speeds up to 50,000 readings per second and memory expansion up to 2 million readings with optional upgrades, making it ideal for benchtop R&D and high-throughput automated test environments.

SPECIFICATIONS

General

Interfaces	USB 2.0, LAN (10/100 Base-T), GPIB (optional via Option GPB)
Display	4.3-inch color TFT WQVGA (480 x 272) with histogram, bar chart, and trend chart modes
Warm-Up Time	60 minutes

Physical

Power Supply	100 V / 120 V / 220 V / 240 V ±10%, 45 Hz to 66 Hz, 360 Hz to 440 Hz; 75 VA maximum
Operating Temperature	0 to 55 °C
Dimensions (W×H×D)	261.2 × 103.8 × 303.2 mm
Weight	3.76 kg

Resolution and Display

Digits of Resolution	6.5 digits
Display Type	Color TFT
Maximum Count	1,200,000
Dual Display Support	Yes

DC Voltage

DCV Ranges	100 mV, 1 V, 10 V, 100 V, 1000 V
DCV Best 1-Year Accuracy	0.0030% of reading + 0.0005% of range
DCV Maximum Resolution	100 nV
DCV Input Impedance	10 MΩ ±1% (all ranges); >10 GΩ selectable (100 mV, 1 V, 10 V ranges)
DCV Normal Mode Rejection Ratio (NMRR)	60 dB at 50 Hz, 60 Hz (with 1 PLC or greater)
DCV Common Mode Rejection Ratio (CMRR)	140 dB (for 1 kΩ imbalance in LO lead)
DCV Linearity	0.0002% of reading + 0.0001% of range
DCV Input Bias Current	<30 pA at 25 °C

AC Voltage

ACV Measurement Type	True RMS
ACV Ranges	100 mV, 1 V, 10 V, 100 V, 750 V
ACV Frequency Range	3 Hz to 300 kHz
ACV Best 1-Year Accuracy	0.06% of reading + 0.03% of range (at 10 Hz - 20 kHz)
ACV Maximum Resolution	100 nV
ACV Input Impedance	1 M Ω $\pm$ 2% in parallel with <100 pF
ACV Maximum Crest Factor	10:1 at up to 10% of range; 3:1 at full scale

DC Current

DCI Ranges	1 μ A, 10 μ A, 100 μ A, 1 mA, 10 mA, 100 mA, 1 A, 3 A, 10 A
DCI Best 1-Year Accuracy	0.05% of reading + 0.005% of range (on 10 mA, 100 mA ranges)
DCI Maximum Resolution	1 pA
DCI Input Protection	11 A, 1000 V FAST fuse (10 A terminal); 4 A, 500 V FAST fuse (3 A terminal)

AC Current

ACI Measurement Type	True RMS
ACI Ranges	100 μ A, 1 mA, 10 mA, 100 mA, 1 A, 3 A, 10 A
ACI Frequency Range	3 Hz to 10 kHz
ACI Best 1-Year Accuracy	0.10% of reading + 0.04% of range
ACI Maximum Resolution	100 pA

Resistance

Resistance Measurement Configurations	2-wire and 4-wire
Resistance Ranges	100 Ω , 1 k Ω , 10 k Ω , 100 k Ω , 1 M Ω , 10 M Ω , 100 M Ω , 1 G Ω
Resistance Best 1-Year Accuracy	0.008% of reading + 0.001% of range (on 10 k Ω range)
Resistance Maximum Resolution	100 $\mu\Omega$
Maximum Test Current	1 mA
Offset Compensation	Yes
Open Circuit Voltage	<17 V

Frequency and Period

Frequency Range	3 Hz to 300 kHz
Period Range	3.3 μ s to 333 ms
Frequency Best 1-Year Accuracy	0.01% of reading
Gate Time Options	1 ms, 10 ms, 100 ms, 1 s

Secondary and Specialized Measurements

Capacitance Ranges	1.0 nF, 10.0 nF, 100.0 nF, 1.0 μ F, 10.0 μ F, 100.0 μ F
Capacitance Best 1-Year Accuracy	1% of reading + 0.3% of range
Temperature Sensor Support	RTD, Thermistor, Thermocouple
Diode Test Voltage / Current	5 V / 1 mA
Continuity Threshold	Adjustable from 1 Ω to 1000 Ω

System Speed and Performance

Integration Time Options (NPLC)	0.02 to 100 NPLC (0.001 to 100 NPLC with Option DIG)
Reading Rate to Internal Memory	5,000 readings/s (standard); 50,000 readings/s (with Option DIG)
Reading Rate to Interface	5,000 readings/s (standard); 50,000 readings/s (with Option DIG)
Maximum Internal Storage Capacity	50,000 readings (standard); 2,000,000 readings (with Option MEM/DIG)

Triggering and Math Functions

Trigger Sources	Internal, External, Software, Front panel
Trigger Delay Range	0 to 3600 s
Built-in Math Functions	Null, Min/Max/Average, dB, dBm, Limit test
Statistical Analysis Functions	Standard deviation, Mean, Min, Max, Peak-to-peak
Limit Testing	Yes

Interfaces and Connectivity

GPIB Interface	Optional (Option GPB)
RS-232 Interface	No
USB Interface Type	USB 2.0 (Type A host and Type B device)
LAN/Ethernet Interface	10/100 Base-T (LXI Core compliant)
External Trigger Input	Yes (BNC)
Voltmeter Complete (VMC) Output	Yes (BNC)

Power and Environmental

Storage Temperature Range	-40 °C to 70 °C
Operating Humidity Range	Up to 80% RH at 31 °C, decreasing linearly to 50% RH at 40 °C
Safety Standards	EN 61010-1, UL 61010-1, CAN/CSA-C22.2 No. 61010-1

Physical Characteristics

Rack Unit Height	2U
------------------	----

Measurement Performance

Autocalibration (ACAL)	Yes (corrects for temperature drift)
High-Speed Digitizing Option	Up to 50,000 rds/s (with Option 34465A-DIG)

Programming & System

Language Emulation Modes	34401A, 34410A/34411A SCPI-compatible
--------------------------	---------------------------------------

Power & Safety	
AC Line Frequency	45 Hz to 66 Hz, 360 Hz to 440 Hz (auto-sensing)
Power Consumption	75 VA maximum (30 W average)
Pollution Degree	Pollution Degree 2

Environmental	
Operating Altitude	Up to 3,000 meters

Hardware Features	
Front/Rear Terminal Switch	Manual front panel switch
Real-Time Clock	Battery-backed, keeps time when power is off

Input Protection	
LO to Ground Isolation	±500 V peak

System & Connectivity	
LXI Compliance	LXI Core 2011
Front Panel USB Port	USB 2.0 host, Type A (for USB flash drives)

Performance Options	
High-Speed Digitizing Rate	Up to 50,000 samples/s (requires Option DIG)
Extended Memory Capacity	Up to 2,000,000 readings (requires Option MEM)

TECHNOLOGY	
Truevolt technology	

APPLICATIONS	
Precision electrical measurements, automated testing, and research and development	

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.