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# 8845A/8846A 6.5 Digit Precision Multimeters

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## Highlights

### Precision and versatility for bench or systems applications

- 6.5 digit resolution
- Basic V dc accuracy of up to 0.0024 %
- Dual display
- 100  $\mu$ A to 10 A current range, with up to 100 pA resolution
- Wide ohms range from 10  $\Omega$  to 1 G $\Omega$  with up to 10  $\mu\Omega$  resolution
- 2 x 4 ohms 4-wire measurement technique
- Both models measure frequency and period
- 8846A also measures capacitance and temperature
- USB memory drive port (8846A)
- Fluke 45 and Agilent 34401A emulation
- Graphical display
- Trendplot™ paperless recorder mode, statistics, histogram
- CAT I 1000 V, CAT II 600 V
- Three-year warranty

Are you looking to establish traceable calibration of factory test systems on the factory floor?

Read "Maintaining in-situ traceability on the factory floor with process metrology."

[Read it now >>](#)

The Fluke 8845A and 8846A 6.5 digit precision multimeters have the precision and versatility to handle your most demanding measurements, on the bench or in a system. These meters are both high performance and feature rich, yet also remarkably easy to use.

These [digital multimeters](#) perform the functions you would expect to see in a multifunction DMM, including measuring volts, ohms, and amps. Basic V dc accuracy of up to 0.0024 %, 10 A current range, and a wide ohms range give you an unbeatable combination of measurement capability.

You can also use the 8845A and 8846A to measure frequency and period. In addition, the 8846A measures temperature and capacitance. The functions of a counter, capacitance meter, and thermometer are built in for unparalleled versatility. Extend the meters' utility even more with their graphical display modes, including Trendplot™ paperless recorder mode, statistics and histograms—features you won't find on other multimeters.

Of course, these meters are also durable and dependable, features you expect from any Fluke meter. This unique combination of features and performance makes the 8845A and 8846A an unbeatable value for a wide variety of applications, including manufacturing test, research and development, and service.

## Description

### Dual display and versatile graphical capabilities

The 8845A/8846A feature a unique dual display that allows you to measure two different parameters of the same signal from one test connection. To reveal signal quality issues like drift, intermittants and stability, view data as a real time trend plot or histogram, with the unique analyze mode. You won't find graphical display capabilities like these on any other instrument in this class.

### Perform 4-wire measurement with only two leads

Patented split terminal jacks for the 2 x 4 ohms function allow you to perform 4-wire measurements using only two leads instead of four. A special test lead accessory is available to enable you to establish the connection. You get excellent resolution and accuracy plus the convenience and ease of using a single pair of leads.

### Multiple connectors give you maximum flexibility

Choose from several interfaces to connect the 8845A/8846A to a personal computer: serial, IEEE-488, and Ethernet come

standard on both models. A USB device port is included on the 8846A meter for convenient data transfer to and from a PC via a portable USB storage device.

**FlukeView® Software and drivers add PC power and application compatibility.**

[FlukeView Forms](#) increases the power of your Fluke tool by enabling you to document, store and analyze individual readings or series of measurements, then convert them into professional-looking documents. Log live readings while connected to a PC or store, display and share readings in interactive forms, graphs and tables. Create customized, professional looking documents that can be printed or emailed. [FlukeView Forms](#) software includes easy-to-use standard forms.

Instrument programming drivers, DLL files and support information are included to get your test system up and running as quickly as possible.

**FlukeView® Forms Basic**

The Fluke 8845A/8846A ship with a free copy of FlukeView Basic. Transfer data points from your meter to your PC and use the two standard, noncustomizable forms to display your readings in table or graphical form. For a larger array of forms or to use [FlukeView Forms Designer](#) to customize your forms, upgrade to [FlukeView Forms](#) version 3.0 with FVF-UG.

**Fluke 45 and Agilent 34401A emulation**

The 8845A/8846A emulate operation and programming commands of the Fluke 45 and Agilent 34401. Emulation shortens the learning curve and makes it easy to fit the 8845A or 8846A into existing test systems.

**Fluke support completes the equation of value**

Like all Fluke products, the 8845A/8846A are built to provide years of dependable service. However, if you do need calibration or repairs, you can turn to our global network of direct and representative service centers strategically located around the world. Each offers a full range of support services.

**Specifications**

Technical Specifications	
Display	VFD Dot Matrix
Resolution	6.5 Digits
V DC	<p><b>Ranges:</b> 100 mV to 1000 V</p> <p><b>Max. Resolution:</b> 100 nV</p> <p><b>Accuracy:</b> 8845A: 0.0035 + 0.0005 (% measurement + % of range) 8846A: 0.0024 + 0.0005 (% measurement + % of range)</p>
V AC	<p><b>Ranges:</b> 8845A: 100 mV to 750 V 8846A: 100 mV to 1000 V</p> <p><b>Max. Resolution:</b> 100 nV</p> <p><b>Accuracy:</b> 8845A: 0.06 + 0.03 (% measurement + % of range) 8846A: 0.06 + 0.03 (% measurement + % of range)</p> <p><b>Frequency:</b> 3 Hz to 300 KHz</p>
Resistance	<p><b>2x4 Wire:</b> Yes</p> <p><b>Ranges:</b> 8845A: 100 Ω to 100 MΩ 8846A: 10 Ω to 1 GΩ</p> <p><b>Max. Resolution:</b> 8845A: 100 μΩ 8846A: 10 μΩ</p> <p><b>Accuracy:</b> 8845A: 0.010 + 0.001 (% measurement + % of range) 8846A: 0.010 + 0.001 (% measurement + % of range)</p>
A DC	<p><b>Ranges:</b> 100 μA to 10 A</p> <p><b>Max. Resolution:</b> 100 pA</p> <p><b>Accuracy:</b> 0.050 + 0.005 (% measurement + % of range)</p>
A AC	<p><b>Ranges:</b> 8845A: 10 mA to 10 A 8846A: 100 mA to 10 A</p> <p><b>Max. Resolution:</b> 8845A: 10 nA 8846A: 100 pA</p> <p><b>Accuracy:</b> 0.10 + 0.04 (% measurement + % of range)</p> <p><b>Frequency:</b> 3 Hz to 10 kHz</p>
Freq/Period	<p><b>Ranges:</b> 8845A: 3 Hz to 300 kHz 8846A: 3 Hz to 1 MHz</p> <p><b>Max. Resolution:</b> 1 μHz</p> <p><b>Accuracy:</b> 0.01 %</p>

<b>Continuity/ Diode Test</b>	Yes
<b>Capacitance</b>	<b>Ranges:</b> 8846A: 1 nF to 0.1 F <b>Max. Resolution:</b> 8846A: 1 pf <b>Accuracy:</b> 8846A: 1 %
<b>Temperature</b>	<b>Type:</b> 8846A: Platinum RTD <b>Ranges:</b> 8846A: -200 °C to +600 ° <b>Max. Resolution:</b> 8846A: 0.01 ° <b>Accuracy:</b> 8846A: 0.06 °
<b>Math Functions</b>	NULL, Min/Max/Average, Std Dev <b>dB/dBm:</b> Yes
<b>Advanced Functions</b>	<b>Statistics/Histogram:</b> Yes <b>Trendplot:</b> Yes <b>Limit Test:</b> Yes
<b>Input Output</b>	<b>USB Memory:</b> 8846A: USB memory drive port <b>Real Time Clock:</b> 8846A: Yes <b>Interfaces:</b> RS 232, IEE-488.2, Ethernet, USB (with optional adaptor) <b>Programming Languages/Modes:</b> 8846A: SCPI (IEEE-488.2), Agilent 34401A, Fluke 45

General Specifications	
<b>Weight</b>	3.6 kg (8.0 lbs)
<b>Dimensions</b>	88 mm x 217 mm x 297 mm (3.46 in x 8.56 in x 11.7 in)
<b>Calibration Documentation</b>	17025 accredited report of calibration included
<b>Safety</b>	Designed to comply with IEC 61010-1:2000-1, UL 61010-1A1, CAN/CSA-C22.2 No. 61010.1, CAT I 1000V/CAT II 600V
<b>Warranty</b>	Three years

## Models and Accessories

Model Name	Description
Fluke 8845A	<b>6.5 digit Precision Multimeter, 35 ppm</b> <b>Includes:</b> TL71 Test Lead Set, Premium DMM LCI Line Cord USB to RS232 Cable Adapter Statement of Calibration Practices WEEE Information Sheet Warranty Information Programmer, Users and Service Manuals (CD-ROM) FlukeView Forms – Basic for 8845/8846
Fluke 8845A/SU	<b>6.5 digit Precision Multimeter, 35 ppm (software and cable)</b> <b>Includes:</b> FlukeView Forms Software Upgrade USB to RS232 Cable Adapter
Fluke 8846A	<b>6.5 digit Precision Multimeter, 24 ppm USB mem</b> <b>Includes:</b> TL71 Test Lead Set, Premium DMM LCI Line Cord USB to RS232 Cable Adapter Statement of Calibration Practices WEEE Information Sheet Warranty Information Programmer, Users and Service Manuals (CD-ROM) FlukeView Forms – Basic for 8845/8846

Fluke 8846A/SU	<b>6.5 digit Precision Multimeter, 24 ppm USB mem (software and cable)</b> <b>Includes:</b> FlukeView Forms Software Upgrade USB to RS232 Cable Adapter
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### Accessories common to all models:

Accessory	Description
<a href="#">FVF-UG</a>	FlukeView Forms for 8845/8846 Software Upgrade
FVF-SC5	<b>FlukeView Forms, Basic Software</b> <b>Includes:</b> <ul style="list-style-type: none"> <li>• CD for FlukeView Forms Basic</li> <li>• Users manual, registration card, and software license agreement</li> </ul>
<a href="#">FVF-SC4</a>	FlukeView Forms with Cable for 8845/8846
Y8022	Shielded IEEE-488 Cable, 2m
Y8021	Shielded IEEE-488 Cable, 1m
RS43	RS-232 Cable (RS43, 2 m)
Y8846S	Rack Mount Kit, Single
<a href="#">Y8846D</a>	Rack Mount Kit, Dual, 19-inch
<a href="#">884X-USB</a>	USB to RS232 Cable Adapter
<a href="#">884X-ETH</a>	Ethernet Interface Cable
<a href="#">884x-CASE</a>	Molded Plastic Case
<a href="#">TL80A</a>	Basic Electronic Test Lead Set
<a href="#">TL2x4W-PTII</a>	2X4-Wire Ohms Test Lead
<a href="#">884X-SHORT</a>	4-Wire Short
<a href="#">884X-RTD</a>	100 Ohm RTD Temperature Probe
<a href="#">8845A-TPIT</a>	Test Probe IC Tip Set (red and black)
<a href="#">8845A-EFPT</a>	Extended Fine Point Tip Adapter Set (red and black)

<a href="#">TL910</a>	Electronic Test Probes
<a href="#">TP912</a>	Replacement Tips for TL910
<a href="#">TL71</a>	Test Lead Set
<a href="#">TL2X4W-TWZ</a>	2X4-Wire Ohms Tweezers Test Leads
<a href="#">884X-1G</a>	USB Memory 1 GB
<a href="#">884X-512M</a>	USB Memory 512 MB
FUSE	Fuse, 440 mA, 1000 V, Fast, 0.406 in x 1.375 in, Bulk
FUSE	FUSE, 11 A, 1000 V, Fast, 406 in x 1.5 in, Bulk
<a href="#">FlukeView Forms</a>	FlukeView Forms Software
Silver CarePlan	Fluke Calibration Silver CarePlans are available for most calibration products. Please contact your local Fluke Calibration sales representative for details or to request a quote. You may also call the Customer Care Center at 877-355-3225 or send email to <a href="mailto:careplans@flukecal.com">careplans@flukecal.com</a> .



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