ValueTronics International Inc. - www.valuetronics.com - Toll Free: 1.800.552.8258 or 1.847.468.8258 FLUKE

SENSE 4WΩ

1000 V = CAT | A A

HI

LO

10 A

FLUKE 284 40 MS/S ARBITRARY WAVEFORM GENERATE

FRONT

(

INPUT VD-H

2W/4W

FLUKE 8846A 6-1/2 DIGIT PRECISION MULTIMETER

-1.000604

DGV ACY DG ACI P TRUC SETTION

ANLZ MATH **BIBIG** Max 1.000102V= # 65 /100 Min .999**9**46V⇔

ANLZ **IBERG SLO**I

VMax 15.0000V=

VMin 10.0000V⇔ START

#SAMPLES)

V=

RATIO JEND MEAS

r

## Fluke 8845A/8846A **Digital Multimeters**

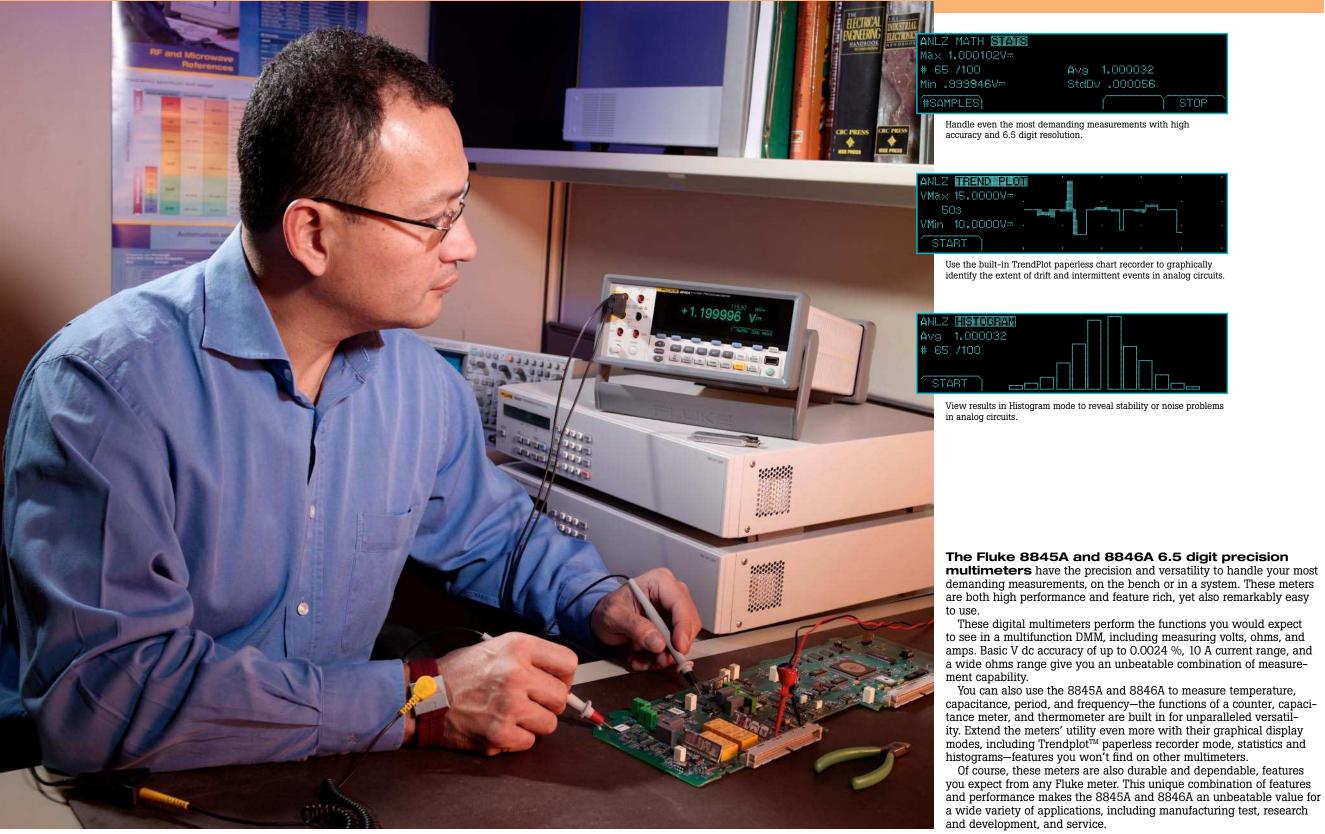
Precision and versatility for bench or systems applications



StdDv .000056

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# **Exceed your expectations for performance and value**



With 14 measurement functions, math and analysis modes, the 8845A/8846A will meet the needs of any test, research and development, or service application.

2 www.valuetronics.com







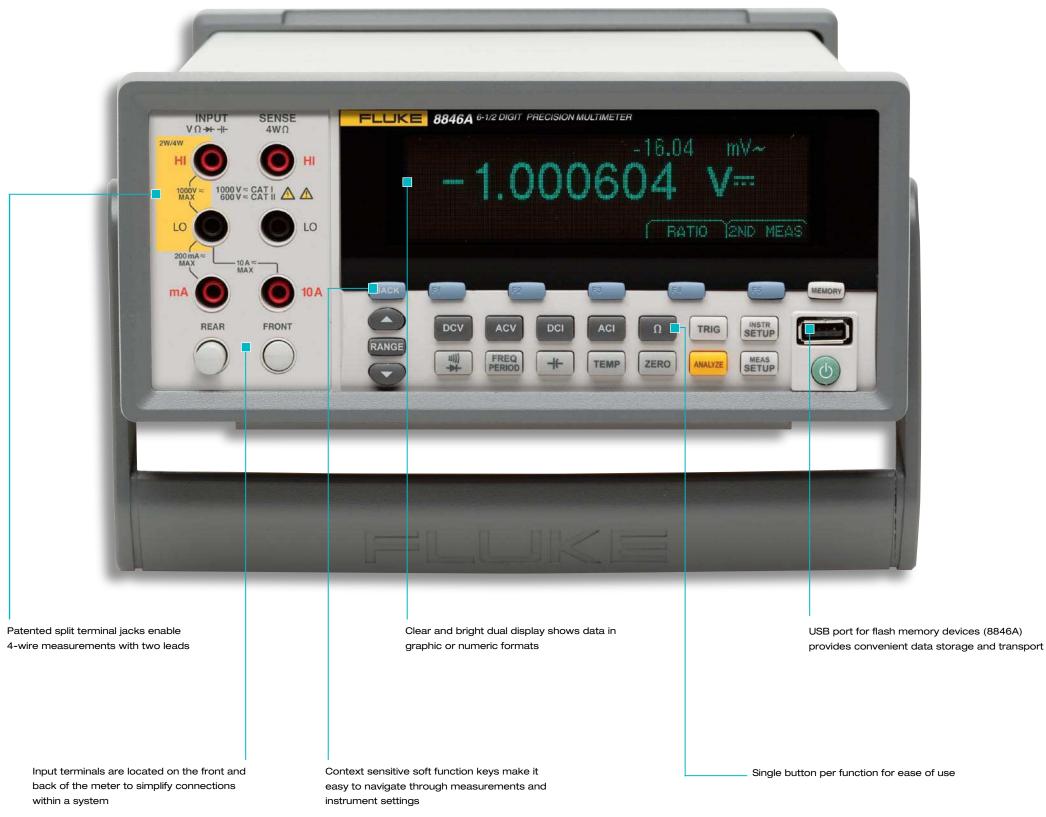


### **Features** at a glance

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

3

# A perfect fit for many applications, in a system or on the bench.



4

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standards.

analog circuits.

instrument.

### Perfect for benchtop research and development



#### Easy to integrate into your automated test system

The 8845A and 8846A meters can be incorporated easily into your automated test system. These meters emulate several legacy bench DMMs, allowing them to be substituted easily into existing systems. SCPI compatibility and drivers allow them to work with most available application and development languages.

Front and rear inputs let you easily make connections where it's most convenient, whether the meter is rack-mounted or used on a bench. Multiple interfaces provide compatibility to existing and new

Reading rates are greater than 1000 readings per second giving you the throughput you need for systems applications.

#### Versatile solutions for advanced test applications

These meters let you take test and troubleshooting to a new level. Set up the 8845A or 8846A to take measurements over a period of time and display them graphically on the DMM's screen, for real time trending analysis. Graphical trending analysis can highlight drift and signal fluctuations, as well as intermittent errors that can't be seen on a numerical display.

Using the graphical display, the 8845A and 8846A can simultaneously display a histogram and multiple statistical values such as mean, min, max and standard deviation calculated using real time measurements. Analyzing a measured values distribution over time can highlight potential reoccurring out-of-tolerance problems.

The ability to make dual simultaneous measurements and display them in graphic or numeric format adds new tools to the test system and design engineer's toolbox of tricks for solving or validating

Save measurement results to USB memory and transfer the data to a PC for detailed analysis. Or use the Ethernet connection to transport data over a network.

Extended current and ohms ranges and additional capabilities such as temperature and capacitance increase the variety of measurements you can make and tests you can perform with a single

Research and development applications demand measurement performance and flexibility. The 8845A and 8846A meet these needs, with excellent performance in all measurement functions. It's easy to use and adapts easily to almost any benchtop application.



#### **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 measurements** 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> Forms Designer to customize your forms, upgrade to FlukeView® Forms version 3.0 with FVF-UG.

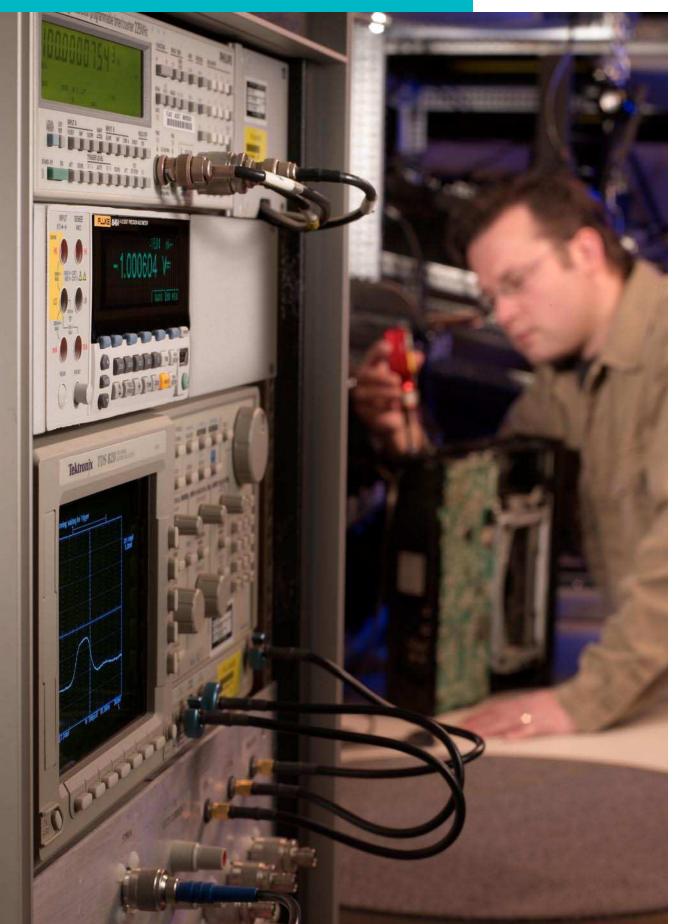
### Fluke 45 and Agilent 34401A emulation

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.

With 6.5 digit performance, legacy DMM emulation and the latest interfaces, the 8845A/8846A will easily integrate into any legacy or new test system



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#### FLUKE ® Summary alue Tronics International Inc. Specifications <del>- Toll Free: 1.800</del>.552.8258 or 1.847.46<mark>8.8258</mark> www.valuetrpnics.com 8845A 8846A

| pecifications                   | 8845A  | 8846A                    |  |
|---------------------------------|--|--------------------------|--|
| Display                         |  | Dot Matrix               | Ordering Information   |
| Resolution                      | 6.5 Digits   |                          | <b>Models</b><br>8845A 6.5 digit precision                             |
| Measurement Function            | Accuracy, $\pm$ (% of reading + % of range),<br>one year after calibration |                          |  |
|                                 | one year a   |                          | multimeter, 35 ppm   |
| V DC                            | 1001   | 1 to 1000 M              | 8846A 6.5 digit precision  |
| Ranges<br>Max. Resolution       |  | / to 1000 V<br>00 nV     | multimeter, 24 ppm USB mem   |
| Accuracy                        | 0.0035 + 0.0005  | 0.0024 + 0.0005          |  |
| V AC                            | 0.0000 1 0.0000  | 0.0024 1 0.0003          | Options and Accessories  |
| Ranges                          | 100 mV to 750 V  | 100 mV to 1000 V         | TL71 Test Lead Set,  |
| Max. Resolution                 |  | 00 nV                    | Premium DMM  |
| Accuracy                        | 0.06 + 0.03  | 0.06 + 0.03              | TI 010 Description The store in  |
| Frequency                       | 3 Hz to 300 KHz  |                          | TL910 Precision Electronic   |
| Resistance                      |  |                          | Probe Set  |
| 2x4 Wire                        | Yes  | Yes                      | 884X-SHORT 4-Wire Short  |
| Ranges                          | 100 Ω to 100 MΩ  | 10 Ω to 1 GΩ             | TL2X4W-PT 2x4 Wire Ohms  |
| Max. Resolution                 | 100 μΩ   | 10 μΩ                    | - Test Lead 2 mm Probe Tip   |
| Accuracy                        | 0.010 + 0.001  | 0.010 + 0.001            | -  |
| A DC                            |  |                          | 884X-RTD 100 Ohm RTD   |
| Ranges                          | 100 µA to 10 A   | 100 µA to 10 A           | Temperature Probe  |
| Max. Resolution                 | 100 pA   | 100 pA                   | 884X-512M USB Memory 512 M   |
| Accuracy<br>A AC                | 0.050 + 0.005  | 0.050 + 0.005            | 884X-1G USB Memory 1 GB  |
| A AC<br>Ranges                  | 10 m to 10 t   | 100 yA to 10 A           |  |
| Max. Resolution                 | 10 mA to 10 A<br>10 µA   | 100 µA to 10 A<br>100 pA | — Y8022 IEEE488 cable (2 m)  |
| Accuracy                        | 0.10 + 0.04  | 0.10 + 0.04              | 884X-USB USB to RS232 cable  |
| Frequency                       | 3 Hz to 10 kHz   | 3 Hz to 10 kHz           | adapter  |
| Freq/Period                     |  |                          |  |
| Ranges                          | 3 Hz to 300 kHz  | 3 Hz to 1 MHz            | FVF-UG FlukeView Forms Software  |
| Max. Resolution                 | 1 µHz  | 1 µHz                    | Upgrade—No Cable   |
| Accuracy                        | 0.01 %   | 0.01 %                   | Y8846 Rack Mount Kit   |
| Continuity/ Diode Test          | Yes  | Yes                      |  |
| Capacitance                     |  |                          |  |
| Ranges                          | _  | 1 nF to 0.1 F            |  |
| Max. Resolution                 | _  | 1 pf                     |  |
| Accuracy                        | _  | 1 %                      | Fluke supports you by supplying  |
| Temperature                     |  |                          | information about Fluke tools and                                      |
| Туре                            |  | Platinum RTD             | how to use them. Visit the Fluke                                       |
| Range                           | -  | -200 °C to +600 °C       | web site at <b>www.fluke.com</b> for product descriptions, application |
| Max. Resolution                 | -  | 0.01 °<br>0.06 °         | notes and white papers. You will                                       |
| Accuracy                        |  | 0.06                     | also find newsletters, online com-                                     |
| Math Functions                  |  |                          | munities, downloadable manuals,  |
|                                 | Zero, Min/Max/Average, Std Dev; mx+b                                       |                          | and much more.   |
| dB/dBm                          | Yes  | Yes                      |  |
| -                               | 100  | 100                      |  |
| Advanced Functions              |  |                          |  |
| Statistics/Histogram            | Yes  |                          |  |
| Trendplot                       | Yes  |                          | Fluke. Keeping your world  |
| Limit Test                      | Yes  |                          | up and running.™   |
| Input Output                    |  |                          |  |
|                                 |  |                          | Eluko Corneration  |
| USB Memory                      | _  | USB memory drive port    | Fluke Corporation<br>PO Box 9090, Everett, WA USA 98206                |
| Real Time Clock                 | -  | Yes                      | Fluke Europe B.V.  |
| Interfaces                      | RS 232, IEE-488.2, Ethernet, U   | · · · · · · · ·          | PO Box 1186, 5602 BD   |
| Programming Languages/<br>Modes | SCPI (IEEE-488.2), Agilent 34401A, Fluke 45                                |                          | Eindhoven, The Netherlands   |
| Modes                           |  |                          | For more information call:   |
| General                         |  |                          | In the U.S.A. (800) 443-5853 or<br>Fax (425) 446-5116                  |
| Weight                          | 3.6 kg (8.0 lbs)   |                          | In Europe/M-East/Africa $+31$ (0) 40 2 675 200                         |
| Size (HxWxD)                    | 88 mm x 217 mm x 297 mm (3.46 in x 8.56 in x 11.7 in)                      |                          | Fax +31 (0) 40 2 675 222   |
| Safety                          | Designed to comply with IEC 61010-1 2000-1,                                |                          | — In Canada (800)-36-FLUKE or<br>Fax (905) 890-6866                    |
| •                               | ANSI/ISA-S82.01-1994, CAN/CSA-C22.2 No. 1010.1-92                          |                          | From other countries $+1$ (425) 446-5500 or                            |
|                                 | CAT I 1000 V, CAT II 600 V   |                          | Fax $+1$ (425) 446-5116  |
| Warranty                        | One year   |                          | Web access: http://www.fluke.com                                       |
| -                               |  |                          |  |
|                                 |  |                          | ©2006 Fluke Corporation. All rights reserved.                          |

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