

Digidata 1440A data acquisition system

1440A数模/模数转换器

A LOW-NOISE DATA ACQUISITION SYSTEM



→ COMPLETE DATA
ACQUISITION SYSTEM

→ RACK-MOUNT READY

→ USB 2.0 COMMUNICATIONS
SUPPORTS LAPTOP
COMPUTERS

→ INCLUDES AXOSCOPE 10
SOFTWARE FOR WINDOWS

The Digidata® 1440A data acquisition system is the next generation of low-noise cellular neurosciences digitizers from Molecular Devices.

LOWER NOISE

Design and manufacturing improvements have eliminated several sources of digitization noise. Analog input channel crosstalk is prevented by the use of separate analog-to-digital converters (ADCs) for each of the analog input channels. AC/DC switching noise is isolated from the electronics by the use of an external power supply. Additionally, the use of the latest manufacturing processes and precision components contribute to an extremely low-noise 16-bit signal.

POWERFUL

Four independent analog output channels can stimulate four cells at once for higher throughput or synaptic network experiments. All of the 16 analog input channels can be simultaneously digitized at the highest sampling

rate of 250 kHz for maximum throughput. Multiple triggering options are available via hardware and software.

EASY SETUP

Simply load the software and plug into a USB 2.0 port to connect to desktop or laptop computers. A bundled USB 2.0 PCI card provides support for older desktop computers. All signal connections are conveniently accessible on the front panel.

QUALITY SOFTWARE

Recordings can be made right out of the box with AxoScope 10 (included) for Windows® software. AxoScope 10 is a data acquisition program that provides continuous (gap-free) event detection and oscilloscope modes of operation. Ratiometric dye measurements from PMTs are also supported. Offline cursor-based measurements and statistics are displayed in a spreadsheet. AxoScope 10 records ABF 2 binary data files and exports ASCII text files.

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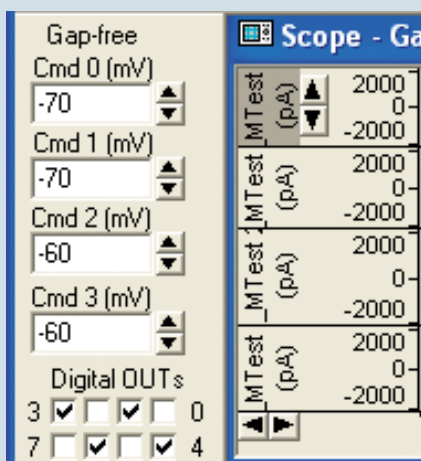
Tel: 020-8767 9617, 8767 9631; Fax: 020-8767 9635
http://www.mapusci.com E-mail: info@mapusci.com

digital BNCs



Digidata 1440A offers front-panel access to digital triggering, tagging, and output BNCs.

real-time control panel



The included AxoScope 10 software offers optional real-time control of analog and digital outputs.

protocol editor



The AxoScope 10 protocol editor provides several recording options.

TECHNICAL SPECIFICATIONS

Performance Specifications

- Analog outputs: 4 channels, 4 DACs, ± 10 V range, 16-bit resolution, 1 Hz–250 kHz sampling rates.
- Analog inputs: 16 channels, 16 ADCs, ± 10 V range, 16-bit resolution, 1 Hz–250 kHz sampling rates.
- Digital outputs: 8 bits, BNC and DB-25F connections
- Digital triggers: Start input, Tag input, Scope input
- Telegraphs: 4 channels or via internal Windows® messaging for supported software

- Analog output impedance: $< 0.1 \Omega$
- Analog input resistance: 1 M Ω
- Digital output current: ± 4 mA source, ± 32 mA sink
- Analog crosstalk: < 1 mV Avg_{pp}
- Digitization noise: < 1 mV Avg_{pp}

General Specifications

- Dimensions (in.): 4.3 (H) x 19 (W) x 14.3 (D)
- Dimensions (cm): 10.9 (H) x 48.3 (W) x 36.3 (D)
- Weight: 8 lbs. (3.6 kg)
- Communications: USB 2.0
- Rack use: Standard 19" rack-mount (2U) with handles
- Benchtop use: Bayonet feet
- Power: 100–240 VAC 50–60 Hz, 115 watts (max.)
- Safety: CE marking (Conformité Européen)
- Computer: 1.2 GHz or better CPU, Windows 2000 SP4/XP Pro SP2, 500 MB RAM, CD-ROM drive, USB 2.0 port
- Software: AxoScope 10 (included)
pCLAMP 10 (optional)

ORDERING INFORMATION

Digidata 1440 Data Acquisition System

Part Number: DD1440A

- Digidata 1440A instrument
- Power supply and cable
- USB 2.0 cable
- USB 2.0 PCI card
- AxoScope 10 CD
- User guide (printed)

SALES OFFICES

- USA +1-800-635-5577
- Australia +61-3-9896-4700
- Brazil +55-11-3616-6607
- China (Beijing) +86-10-6410-8629
- China (Hong Kong) +85-2-8125-2509
- China (Shanghai) +86-21-6887-8820
- Germany +49-89-9605-880
- Japan (Osaka) +81-6-6399-8211
- Japan (Toyko) +81-3-5282-5261
- South Korea +82-2-3471-9531
- Norway +47-32-859-800
- UK +44-118-944-8000

Check our web site for a current listing of our worldwide distributors.

www.moleculardevices.com

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Specifications subject to change without notice.



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Tel: 020-8767 9617, 8767 9631; Fax: 020-8767 9635
http://www.mapusci.com E-mail: info@mapusci.com

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