

# 150 kS/s 12-Bit Multifunction USB Data Acquisition Module

USB-4711A



- ✓ Supports USB 2.0
- ✓ Bus-Powered
- ✓ 16 Analog Input Channels
- ✓ 12-Bit Resolution
- ✓ Sampling Rate up to 150kS/s
- ✓ 8 DI/8 DO, 2 AO and One 32-bit Event Counter
- ✓ Suitable for DIN-Rail Mounting
- ✓ Lockable USB Cable for Rigid Connection

The USB-4700 series consists of true Plug & Play data acquisition modules. No more opening up your computer chassis to install boards.

Just plug in the module, then get the data. It's easy and efficient. Reliable and rugged enough for industrial applications, yet inexpensive enough for all types of projects, the USB-4711 is the perfect way to add measurement and control capability to any USB capable computer. The USB-4711 is fully USB Plug & Play and easy to use. It obtains all required power from the USB port, so no external power connection is ever required.

Data collection is simple. Simply plug the data acquisition module into an available USB port and our easy-to-use Windows software does the rest. The software converts your PC into a real-time strip chart recorder. Data can be printed in graphical or tabular format. It can also be exported to a text or Microsoft Excel file.

## Specifications

### ANALOG INPUT

**Channels:** 16 single-ended/8 differential (SW selectable)

**Resolution:** 12-bits

**Max Sampling Rate:\*** 150k S/s max

**FIFO Size:** 1024 samples

**Overvoltage Protection:** 30 Vp-p

**Input Impedance:** USB-4711A: 1 G  $\Omega$



Windows software displays data in graphical or tabular format.

USB-4711A shown smaller than actual size.

### Sampling Modes:

Software, onboard programmable pacer, or external

### ANALOG OUTPUT

**Channels:** 2

**Resolution:** 12-bits

**Range:** 0 to 5V, 0 to 10V,  $\pm 10V$  (software programmable)

**Output Rate:** Static update

**Slew Rate:** 0.15 V/ls

**Driving Capability:** 2 mA @ 10V

**Output Impedance:** 0.5

**Operation Mode:** Single output

**Accuracy:**

**Relative:**  $\pm 1$  LSB

**Differential On-Linearity:**  $\pm 1$  LSB

### DIGITAL INPUTS

**Channels:** 8

**Compatibility:** 3.3V/5 V/TTL

**Input Voltage:**

**Logic 0:** 0.8V max

**Logic 1:** 2.0V min

### DIGITAL OUTPUTS

**Channels:** 8

**Compatibility:** 3.3V/TTL

**Output Voltage:**

**Logic 0:** 0.8V max @ 4 mA (sink)

**Logic 1:** 2.0V min @ 4 mA (source)

### EVENT COUNTER

**Channels:** 1

**Compatibility:** 3.3V/TTL

**Max Input Frequency:** 1 kHz

### GENERAL

**Bus Type:** USB 2.0

**Software:** Windows 2000/XP

**I/O Connector:** On board screw terminal

**Dimensions:**

80 H x 132 L x 32 mm D

(3.1 x 5.2 x 1.3")

**Power Consumption:**

5V @ 340 mA typical

(5V @ 440 mA max)

**Operating Temperature:** 0 to 60°C

(32 to 140°F)

**Storing Temperature:**

-20 to 70°C (-4 to 158°F)

**Storing Humidity:** 5 to 95% RH non-condensing



OMEGACARE<sup>SM</sup> extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARE<sup>SM</sup> covers parts, labor and equivalent loaners.

### Analog Input Range

V, Software Programmable					
<b>Bipolar</b>	$\pm 10$	$\pm 5$	$\pm 2.5$	$\pm 1.25$	$\pm 0.625$
<b>Accuracy (% of FSR +1 LSB)</b>	0.1	0.1	0.2	0.2	0.4

\* Note: The sampling rate and throughput depends on the computer hardware architecture and software environment. The rates may vary due to programming language, code efficiency, CPU utilization and so on.

To Order	
Model No.	Description
USB-4711A	150 kS/s, 12-bit multifunction USB module

Comes with Windows Software and complete user manual on CD, a 1.8 m (6") USB 2.0 cable, and DIN rail mounting kit.

**Ordering Example:** USB-4711A, 150 kS/s, 12-bit multifunction USB data acquisition module, and OCW-1, OMEGACARE<sup>SM</sup> extends standard 1-year warranty to a total of 2 years.