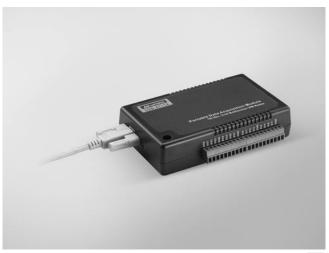
USB-4711A

150 kS/s, 12-bit, 16-ch Multifunction **USB Module**



Features

- Supports USB 2.0
- Portable
- Bus-powered
- 16 analog input channels
- 12-bit resolution Al
- Sampling rate up to 150 kS/s
- 8-ch DI/8-ch DO. 2-ch AO and one 32-bit counter
- Detachable screw terminal on modules
- Suitable for DIN-rail mounting
- One lockable USB cable for secure connection included

CEFCC RoHS

Introduction

The USB-4700 series consists of true Plug & Play data acquisition modules. You no longer need to open the chassis to install DAQ modules. 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 home projects, the USB-4700 series module is the perfect way to add measurement and control capability to any USB capable computer. The USB-4700 series is fully Plug & Play and with onboard terminal block for easy usage. It obtains all required power from the USB port, so no external power connection is ever required. USB-4711A is a multifunction module, with 16-ch Analog Input, 2-ch Analog Output, 16-ch Digital I/O and counter channel which is able to output a constant frequency square wave. With the features of USB-4700 series; USB-4711A is your most cost effective choice of lab or production line test & measurement tool.

Specifications

Analog Input

Channels 16 single-ended/8 differential (software programmable)

Resolution 12 bits Max. Sampling Rate* 150 kS/s max. FIFO Size 1,024 samples • Overvoltage Protection 30 Vp-p Input Impedance $1~\text{G}\Omega$

 Sampling Modes Software, onboard programmable pacer, and external

 Input Range (V, software programmable)

Bipolar ± 2.5 ± 1.25 ± 0.625 Accuracy (% of FSR ±1LSB) 0.1 0.2

*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.

Analog Output

Channels Resolution 12 bits Output Rate Static update

Output Range (V, software programmable)

Internal Reference	Unipolar	0 ~ 5, 0 ~ 10
	Bipolar	±5, ±10

0.15 V/us Slew Rate 2 mA @ 10 V **Driving Capability** Output Impedance 0.5Ω Operation Mode Single output Accuracy Relative: ±1 LSB

Differential non-linearity: ±1 LSB

Digital Inputs

Channels

Compatibility 3.3 V/5 V/TTL Input Voltage Logic 0: 0.8 V max. Logic 1: 2.0 V min.

Digital Outputs

Channels 8 Compatibility 3.3 V/TTL

 Output Voltage Logic 0: 0.8 V max.@ 4 mA (sink)

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

Event Counter

Channels Compatibility 3.3 V/TTL Max. Input Frequency 1 kHz

General

Bus Type USB 2.0

I/O Connector Onboard screw terminal **Dimensions (L x W x H)** 132 x 80 x 32 mm Power Consumption Typical: +5 V @ 340 mA Max.: +5 V @ 440 mA

• Operating Temperature $0 \sim 60^{\circ}$ C (32 $\sim 140^{\circ}$ F) (refer to IEC 68-2-1, 2)

Storage Temperature -20 ~ 70° C (-4 ~ 158° F)

 Storage Humidity 5 ~ 95% RH non-condensing (refer to IEC 68-2-3)

Ordering Information

 USB-4711A 150 kS/s. 12-bit. 16-ch Multi, USB Module

Wallmount Bracket 1960004544 1960005788 VESA Mount Bracket