USB-4704

48 kS/s, 14-bit, 8-ch Multifunction USB Module

Features

- Supports USB 2.0
- Portable
- Bus-powered
- 8 analog input channels
- 14-bit resolution AI
- Sampling rate up to 48 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

CE FCC 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-4704 is a multifunction module, with 8-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-4704 is your most cost effective choice of lab or production line test & measurement tool.

Specifications

Analog Input

- **Channels** 8 single-ended/4 differential (software programmable)
- **Resolution** 14 bits
- **Max. Sampling Rate** 48 kS/s max.
- **FIFO Size** 512 samples
- **Overvoltage Protection** 30 Vp-p
- **Input Impedance** 127 kΩ
- **Sampling Modes** Software, onboard programmable pacer, and external
- **Input Range** (V, software programmable)
  Single ended: ± 10
  Differential: ±1, ±1.25, ± 2, ± 2.5, ±4, ±5, ±10, ±20

Analog Output

- **Channels** 2
- **Resolution** 12 bits
- **Output Rate** Static update
- **Output Range** (V, software programmable) 0~5
- **Slew Rate** 0.7 V/μs
- **Driving Capability** 5 mA
- **Output Impedance** 51 Ω
- **Operation Mode** Single output
- **Accuracy** Relative: ±12 LSB
  Differential non-linearity: ±5 LSB

Digital Input

- **Channels** 8
- **Compatibility** 3.3 V/5 V/TTL
- **Input Voltage** Logic 0: 0.8 V max.
  Logic 1: 2.0 V min.

Digital Output

- **Channels** 8
- **Compatibility** 3.3 V/TTL
- **Output Voltage** Logic 0: 0.4 V max.@ 4 mA (sink)
  Logic 1: 3.5 V min.@ 4 mA (source)

Counter

- **Channels** 1
- **Resolution** 32 bits
- **Compatibility** 3.3 V/TTL
- **Max. Input Frequency** 5 MHz

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 @ 100 mA
  Max.: 5 V @ 500 mA
- **Operating Temperature** 0 ~ 55° C (32 ~ 131° F)
- **Storage Temperature** -20 ~ 70° C (-4 ~ 158° F)
- **Storage Humidity** 5 ~ 95% RH non-condensing (refer to IEC 68-2-3)

Ordering Information

- **USB-4704** 48 kS/s, 14-bit, 8-ch Multi. USB Module
- **1960004544** Wallmount Bracket
- **1960005788** VESA Mount Bracket