

USB-2060

6-channel Isolated Digital Input and 6-channel Relay Output Module

Introduction

The USB-2060 is a full-speed USB device with 8 digital input and digital output channels module, and offers features for industrial control and manufacturing test applications, such as factory automation or embedded machine control. The USB-2060 provides 6 digital input channels, 6 Form A signal relay output channels. All digital input channels can be used as 16-bit counters. In addition, the digital input channels can be selected either as sink or source type via wire connections. The USB-2060 also provides 12 LED indicators that can be used to monitor the status of the digital input and relay output. There are also options for configuring power-on and safe values. 4 kV ESD protection and 3750 VDC intra-module isolation are also provided to enhance noise protection capabilities in industrial environments. With the true Plug & Play capability, it needs not opening up your computer chassis to install boards-just plug in the module, then get or set the data. Owing to another USB feature known as "hot-swapping", users do not even need to shut down and restart the system to attach or remove the USB-2060.

The USB I/O utility can help users to configure and test USB-2060 quickly and easily without programming; In addition, we also provide the friendly API library and demos for users to develop own USB application with various application development tools (VB/C++/C#.NET/VB.NET). Therefore, the USB-2060 is the perfect way to add control capability to any USB capable computer.

Features

- 6-channel digital input and 6-channel relay output
- Dry Contact and Wet Contact Selectable via Wire Connections
- Long Distance Measurement
- All Channels can be used as 16-bit Counters
- 5A current contact rating
- Configurable Power-on Value Settings
- Safety functionality when communication failed
- Wide operating temperature range:-25°C~+75°C
- 2500 VDC Intra-Module isolation
- RoHS compliant
- USB 1.1/2.0 Full-Speed (12Mbps)
- No external power supply (USB Bus Powered)
- Plug-and-Play without driver
- Lockable USB cable
- Support firmware update via USB
- Utility tool for module configuration and I/O testing easily and quickly
- PWR/RUN/ERR LED indicators
- Built-in dual watchdog (hardware/software)
- Provide API library (VC/VB/BCB/.NET)
- Module supported for Win2000/XP and Win7 (32/64 bit)

Applications

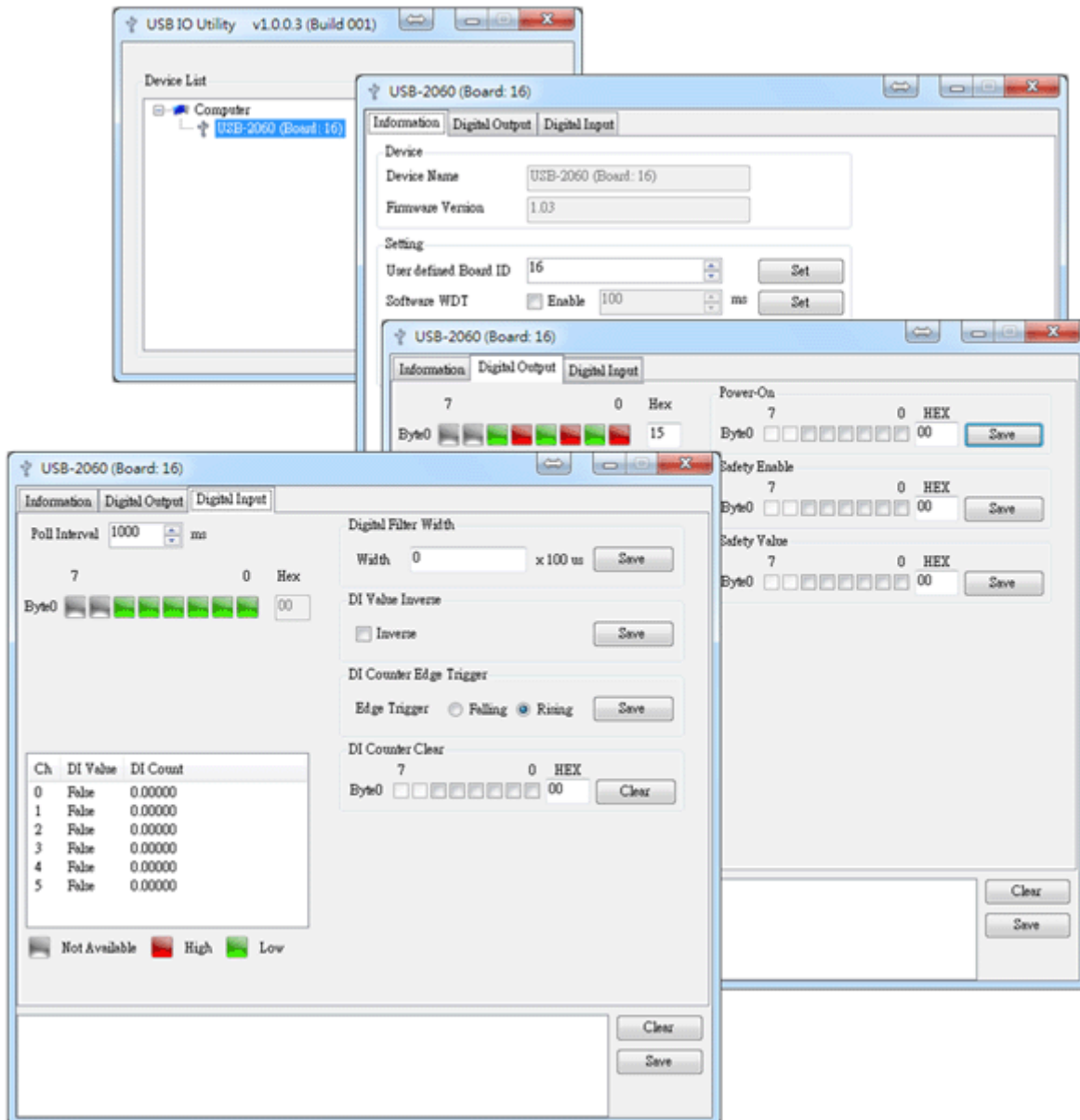
- Building automation
- Factory automation
- Machine automation
- Testing equipment

Software

USB I/O Utility

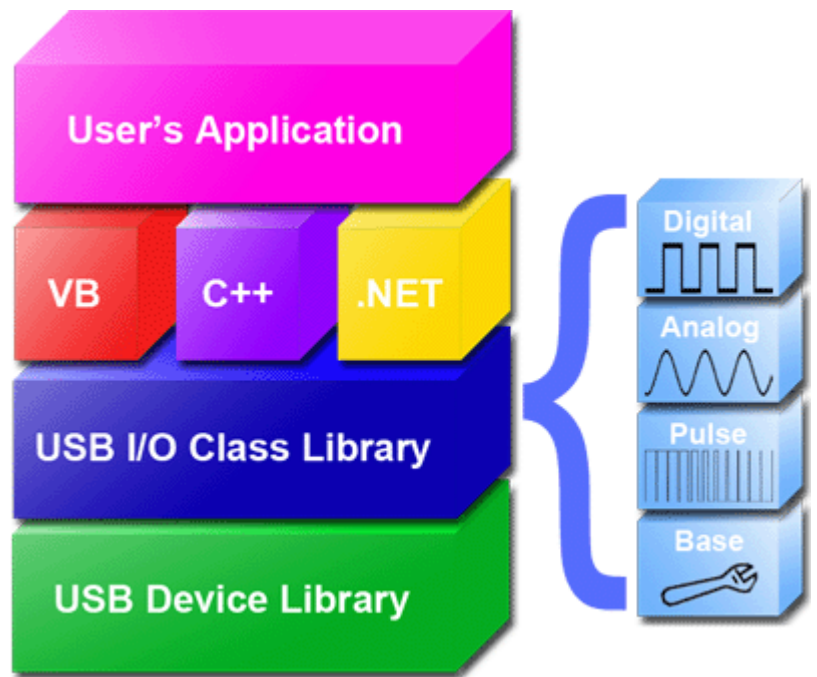
USB I/O Utility provides a simple way to easily test and instant acquire data for all ICP DAS USB I/O series modules without programming.

- Automatically scan all ICP DAS USB I/O modules
- Easily and quickly configure and test USB I/O modules
- Completely and precisely log I/O data for analysis



VB/C++/C#.NET/VB.NET SDK

ICP DAS provides a SDK for USB I/O modules to help user to develop own project easily and quickly. The SDK can be supported in VB/C++/C#.NET/VB.NET to fulfill project development.



Specifications

Digital Input		
Channels		6
Type	Dry Contact	Source
	Wet Contact	Sink/Source
On Voltage Level	Dry Contact	Close to GND
	Wet Contact	+10 VDC ~ +50 VDC
Off Voltage Level	Dry Contact	Open
	Wet Contact	+4 VDC Max.
Effective Distance For Dry Contact		500 meters Max.
Input Impedance		10 K Ω
Overvoltage Protection		70 VDC
Counter	Max. Count	65535 (16-bit)
	Max. Input Frequency	500 Hz
	Min. Pulse Width	1 ms

Relay Output		
Channels		6
Type		Form A (SPST-NO)
Contact	DC	5 A @ 24 VDC
Rating (Resistive Load)	AC	5 A @ 250 VAC (47 ~ 63 Hz)
Operate Time		10 ms (Max.)
Release Time		5 ms (Max.)
Insulation Resistance		1,000 MΩs at 500 VDC
Dielectric Strength	Between Open Contact	1000 VAC (1 min.)
	Between Coil and Contacts	3000 VAC (1 min.)
Enduranc	Mechanical	2 x 10 ⁷ ops
	Electrical	1 x 10 ⁵ ops
Power On Value		Yes
Safety Value		Yes
Communication		
Interface		USB 2.0 Full-Speed (12Mbps)
Watchdog		1 Hardware watchdog (1.6 second)
		1 Software watchdog (Programmable)
LED Indicators		
System LED Indicators		3 LED as Power, Run and Error
I/O LED indicators		8 LEDs as power relay indicators
EMS Protection		
ESD (IEC 61000-4-2)		4 kV contact for each terminal
		8 kV air for random point
Mechanical		
Dimensions (W x L x H)		72 mm x 123 mm x 35 mm
Environmental		
Operating Temperature		-25 ~ +75 °C
Storage Temperature		-40 ~ +85 °C
Humidity		10 ~ 95% RH, non-condensing
Power		
Power Consumption		1.50 W

Ordering Information

USB-2060 CR	6-channel Isolated Digital Input and 6-channel Relay Output Module (RoHS)
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