



### USB-2261A-16

USB I/O Module  
with Isolated  
16-ch AC-SSR  
Output



### USB-2261A-32

USB I/O Module  
with Isolated  
32-ch AC-SSR  
Output

#### Features

- 16/32-ch AC-SSR output
- SSR technology also eliminates potential for arcing, bounce, and switching noise
- Dual watchdog with power-on and safe values
- 2-port USB 2.0 hub for daisy-chain wiring
- Plug-and-Play without driver
- Lockable USB cable
- Easy-to-use tool for setup and I/O testing
- API library (VB/C++/C#.NET/VB.NET/LabVIEW)
- Support 32/64-bit Win7/8/10/11 and Linux



#### Introduction

The USB-2261A-16 and USB-2261A-32 are USB 2.0 I/O devices with 16 or 32 AC-SSR (Solid State Relay). SSR technology provides a faster response time and greater electrical endurance. The integration of AC-SSR technology also eliminates potential for arcing, bounce, and switching noise. Both models also have LED indicators to display the status of the digital channels. A dual watchdog function with configurable power-on and safe values ensures reliable operation in harsh environments. We also provide API library and demos with source code for Windows and Linux users to develop their own USB applications with various development tools (VB/C++/C#.NET/VB.NET/LabVIEW).

Therefore, the USB-2261A-16/USB-2261A-32 is the perfect choose for you to implement I/O expansion via a plug-and-play USB interface.

#### Applications

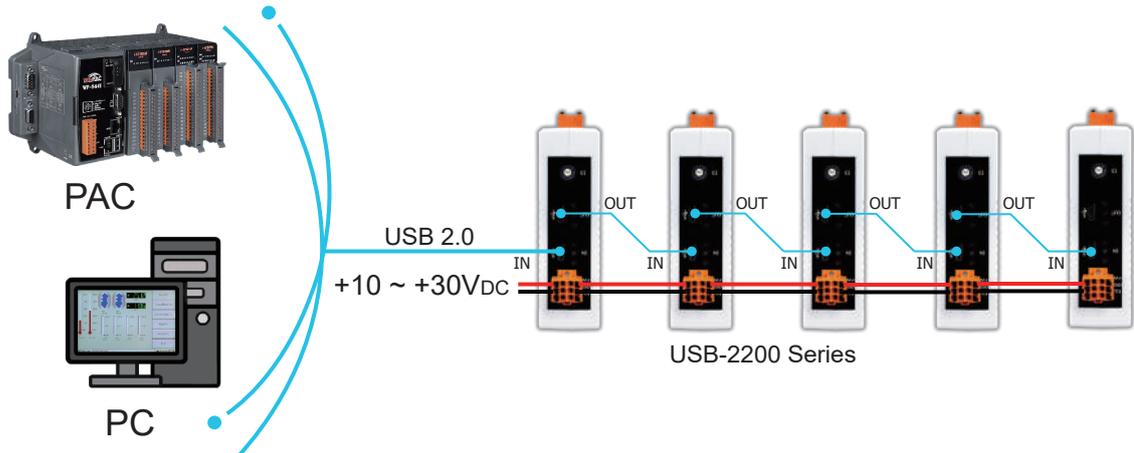
- Building automation
- Factory automation
- Measurement and testing
- Testing equipment
- Machine automation

## Daisy-Chain USB Cabling

The USB-2200 module is equipped with a USB hub that supports daisy chain topologies. This feature allows more USB-2200 modules to be integrated into a single system and also frees up PC USB ports.

Note : The USB 2.0 port provides only 500mA, external power is required when multiple modules are connected to the same USB port. Please refer to the following figure shown daisy chain application.

### Daisy-Chain USB Cabling



Note : Support daisy-chain, max. 5 nodes.

## Redundant Power

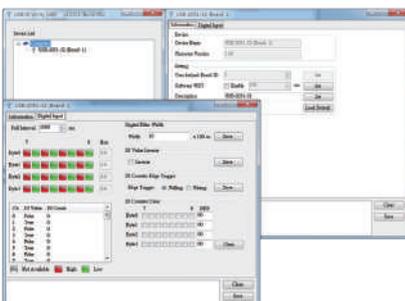
The modules support dual power inputs (+10 to +30 VDC) for enhanced redundancy. If one source becomes inactive or is interrupted, the other immediately takes over to ensure uninterrupted operation in critical environments. The modules can operate as normal with only a single power source. (If not using the USB hub function, the module can be powered via a USB 2.0 port.)

## Software

### USB I/O Utility

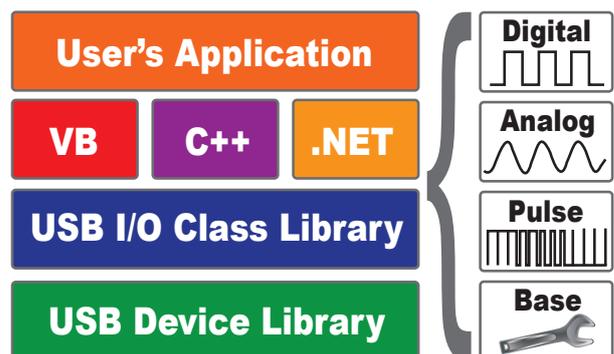
The software supports all ICP DAS USB I/O modules, simplifies I/O control and testing, and allows for immediate data acquisition without programming.

- Automatically scans all I/O modules
- Quickly configures and tests I/O modules
- Completely and accurately logs I/O data for analysis



### VB/C++/C#.NET/VB.NET/LabVIEW 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/LabVIEW to fulfill project development.



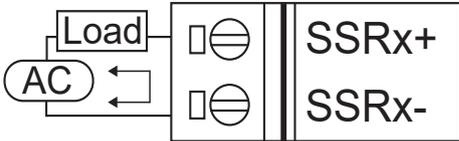
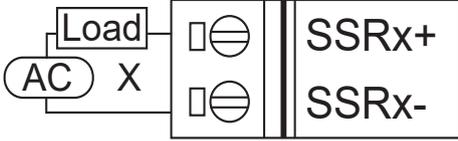
## System Specifications

Model	USB-2261A-16	USB-2261A-32
<b>USB</b>		
Specification	USB 2.0 HighSpeed (480 Mbps)	
Connector	1 x USB IN (CA-USB-AC2-L018 CR) 1 x USB OUT (CA-USB-CC1-L003 CR) or (CA-USB-CC2-L003 CR)	
<b>CPU Module</b>		
Watchdog Timer	1 Hardware watchdog (1.6 second) 1 Software watchdog (Programmable)	
<b>EMS Protection</b>		
ESD (IEC 61000-4-2)	4 kV contact for each terminal 8 kV air for random point	
<b>LED Indicators</b>		
Status	3 x Power, Run and Error	
	16 x AC-SSR	32 x AC-SSR
<b>Power</b>		
Reverse Polarity Protection	Yes	
Powered from Terminal Block	+10 ~ +30 VDC	
Consumption	Typical 2.5 W Max. 3.0 W	Typical 4.1 W Max. 4.6 W
<b>Mechanical</b>		
Dimensions (W x L x H)mm	31 x 166 x 129	56 x 180 x 144
<b>Environmental</b>		
Operating Temperature	-25 ~ +75 ° C	
Storage Temperature	-40 ~ +85 ° C	
Humidity	10 ~ 95% RH, Non-condensing	

## I/O Specifications

Model	USB-2261A-16	USB-2261A-32
<b>Relay Output</b>		
Channels	16	32
Type	Solid State Relay (AC-SSR, Form A)	
Contact Rating	1 A @24 ~ 265 VAC (Operating Temperature -25 to +25° C) 0.8 A @24 ~ 265 VAC (Operating Temperature +25 to +40° C) 0.5 A @24 ~ 265 VAC (Operating Temperature +40 to +60° C) 0.35 A @24 ~ 265 VAC (Operating Temperature +60 to +75° C)	
Leakage Current	1.5 mA	
Operate Time	1/2 cycle + 1 ms	
Release Time	1/2 cycle + 1 ms	
Electrical Endurance	Long Life, No Arcing, No Bounce, No Switching Noise	
Safe Value	Yes, Programmable	
Power on Value	Yes, Programmable	
Intra-Module Isolation	3000 VDC	

## Wire Connections

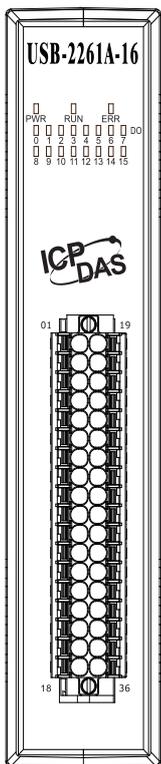
Output Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
AC-SSR Output		

## USB Type-C plug with Locking Screw



## Pin Assignments

### USB-2261A-16



Pin Assignment	Terminal No.	Pin Assignment
SSR0+	01	19 SSR0-
SSR1+	02	20 SSR1-
SSR2+	03	21 SSR2-
SSR3+	04	22 SSR3-
SSR4+	05	23 SSR4-
SSR5+	06	24 SSR5-
SSR6+	07	25 SSR6-
SSR7+	08	26 SSR7-
NC	09	27 NC
NC	10	28 NC
SSR8+	11	29 SSR8-
SSR9+	12	30 SSR9-
SSR10+	13	31 SSR10-
SSR11+	14	32 SSR11-
SSR12+	15	33 SSR12-
SSR13+	16	34 SSR13-
SSR14+	17	35 SSR14-
SSR15+	18	36 SSR15-

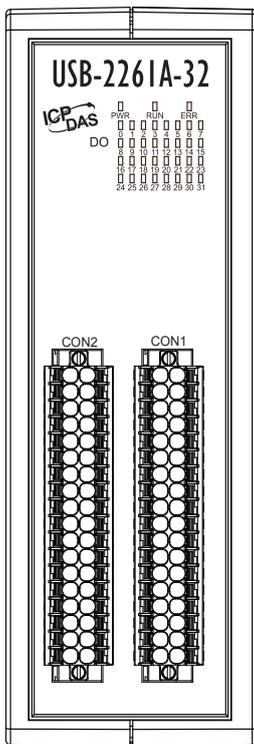
### USB-2261A-16 & USB-2261A-32

Port	Pin Assignment
PWR	F.G. F.G.
	GND1 GND2
	+VS1 +VS2
USB IN	
USB OUT	

### USB-2261A-32

CON2

Pin Assignment	Terminal No.	Pin Assignment
SSR16+	01	19 SSR16-
SSR17+	02	20 SSR17-
SSR18+	03	21 SSR18-
SSR19+	04	22 SSR19-
SSR20+	05	23 SSR20-
SSR21+	06	24 SSR21-
SSR22+	07	25 SSR22-
SSR23+	08	26 SSR23-
NC	09	27 NC
NC	10	28 NC
SSR24+	11	29 SSR24-
SSR25+	12	30 SSR25-
SSR26+	13	31 SSR26-
SSR27+	14	32 SSR27-
SSR28+	15	33 SSR28-
SSR29+	16	34 SSR29-
SSR30+	17	35 SSR30-
SSR31+	18	36 SSR31-

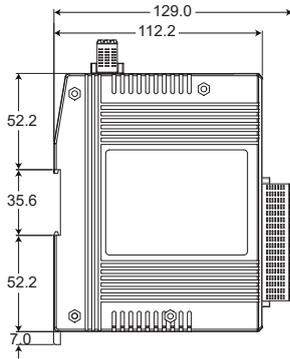


CON1

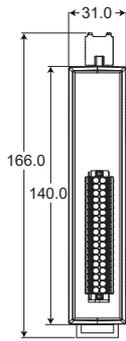
Pin Assignment	Terminal No.	Pin Assignment
SSR0+	01	19 SSR0-
SSR1+	02	20 SSR1-
SSR2+	03	21 SSR2-
SSR3+	04	22 SSR3-
SSR4+	05	23 SSR4-
SSR5+	06	24 SSR5-
SSR6+	07	25 SSR6-
SSR7+	08	26 SSR7-
NC	09	27 NC
NC	10	28 NC
SSR8+	11	29 SSR8-
SSR9+	12	30 SSR9-
SSR10+	13	31 SSR10-
SSR11+	14	32 SSR11-
SSR12+	15	33 SSR12-
SSR13+	16	34 SSR13-
SSR14+	17	35 SSR14-
SSR15+	18	36 SSR15-

## ■ Dimensions (Units: mm)

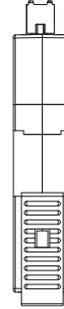
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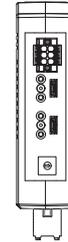
Left Side View



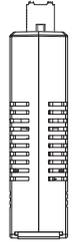
Front View



Rear View

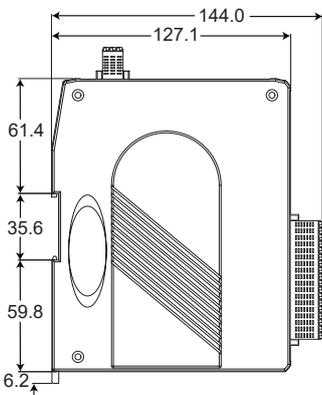


Top View

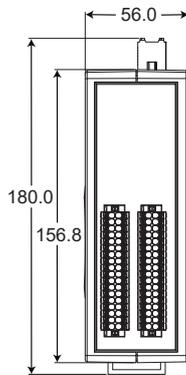


Bottom View

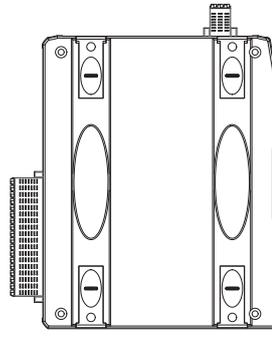
### USB-2261A-32



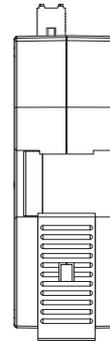
Left Side View



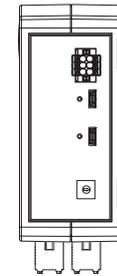
Front View



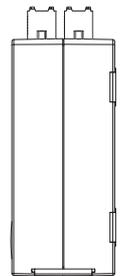
Right Side View



Rear View



Top View



Bottom View

## ■ Ordering Information

<b>USB-2261A-16 CR</b>	USB I/O Module with Isolated 16-ch AC-SSR Output (RoHS) Includes 1.8M USB Cable (CA-USB-AC2-L018)	
<b>USB-2261A-32 CR</b>	USB I/O Module with Isolated 32-ch AC-SSR Output (RoHS) Includes 1.8M USB Cable (CA-USB-AC2-L018)	

## ■ Accessories

<b>CA-USB-CC1-L003 CR</b>		<b>CA-USB-CC1-L018 CR</b>	
Type C to Type C, with screw lock, 30 cm (RoHS)		Type C to Type C, with screw lock, 1.8 M, (RoHS)	
<b>CA-USB-CC2-L003 CR</b>		<b>CA-USB-AC1-L018 CR</b>	
Type C to Type C, with screw lock and ferrite cores, 30cm (RoHS)		USB 2.0, A to Type C with screw lock, 1.8 M, (RoHS)	