

USB DAQ & CONTROL

PRODUCT SELECTION GUIDE

Recommended Mobile Measurement Tool for Notebook PC



The Most Suitable for USB-based Remote I/O System



Same Functionality & Compatibility as Expansion boards for PC



Connect a Favorite Equipment to the Latest Computer



For notebook PC & mobile measurement systems, replacement of desktop PC systems and embedded remote I/O systems. Downsize and Improve Efficiency of your inspection system and research equipment. "The PC-HELPER USB-series" is the BEST USB peripheral device for electronic measurement, analysis, testing and communication system.

Contact US

USB DAQ & CONTROL DEVICES

New Products

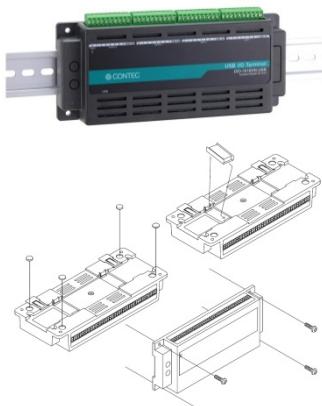
Analog I/O | Multi-function DAQ



12-bit Analog Input, 2-ch 12-bit Analog Output,
1-ch 32-bit Counter, 16-ch Digital I/O

NEW 500kS/s 16-ch AIO-121602LN-USB

NEW 200kS/s 8-ch AIO-120802LN-USB



- Compatible with a USB1.1/USB2.0. Bus Power
- Mounting on 35mm DIN rail. Attached screw fastening, and magnet/rubber feet.
- Adoption of screw terminal connector that enables to achieve easy wiring.
- 12-bit Analog Input SE:16-ch(DI:8-ch) 2μsec/ch (AIO-121602LN-USB)
- 12-bit Analog Input SE:8-ch(DI:8-ch) 5μsec/ch (AIO-120802LN-USB)
- 2-ch 12-bit Analog Output, 1-ch 32-bit Counter, 16-ch Digital I/O
- Compatible with Windows 7, Vista, XP, Server 2008 and Server 2003
- Usable as a LabVIEW-compliant standard data acquisition VI with a special library VI-DAQ.
- Usable as a DAQ board of MATLAB data acquisition toolbox

For more information, please read the page **▶ 4**

RS-232C Serial Communications

4-port RS-232C Serial Communications

NEW COM-4CX-USB



- Compatible with a USB1.1/USB2.0. Bus power
- Maximum baud rate 921,600bps
- Compatible with 32bit/64bit Windows 7, Vista, XP, Server 2003, 2000, Me and 98
- Used 9 pin D-SUB connector
- USB hub function (1 port)
- Attached USB cable attachment (Prevention of unplugged cable on the main unit's side)
- Attached Windows Driver (CD-ROM) and USB cable (1.8m)

For more information, please read the page **▶ 5**

USB DAQ & CONTROL DEVICES

Best for mobile measurement tools
No cables necessary. Fasten screw wiring.



The Y series

BENEFITS OF THE Y-SERIES



Ultraportable Compact & Lightweight Design

They are compatible with USB1.1 / USB2.0, and supplied power from USB (bus power), so they are perfect for using as mobile measurement/simple examination tool.



Attached USB cable (1.8m) with a cover

Every product in this Y series has 1.8m USB cable that is enough length to connect module to computer. Module's side has a connector cover to prevent unplugged cable.

Simple Wiring!

Only connect electric cables to module and screw the terminal connector with precision flathead screwdriver, and you're done! Any other optional cables and terminal blocks are unnecessary.

※ Strip off approximately 9 - 10mm of the covered part of a wire rod and then insert it to the opening. After the insertion, secure the wire rod with screws. Compatible wires are AWG 28 - 16.



Removable Terminal connector

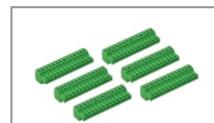
It is possible to change terminal connector according to connected equipment if you prepare an optional terminal connector set (6 pieces) CN6-Y14.

Options



Bracket

BRK-USB-Y



Terminal connector

CN6-Y14

MULTI-FUNCTION DAQ & ANALOG INPUT / OUTPUT

Product Code	Resolution	Sample Rate	Channel*	Digital I/O	Counter	Analog Output
HOT AI-1608AY-USB	16bit	100kHz	8SE	8	-	-
HOT AIO-160802AY-USB	16bit	100kHz	8SE	8	-	2

* SE: Single end input 2-wires connection DI: Differential input 3~4-wires connection

DIGITAL INPUT / OUTPUT

Product Code	Digital Input	Digital Output	Add. function
HOT DIO-0808LY-USB	8-ch (Opto-isolated)	8-ch (Open collector)	-
DIO-0808TY-USB	8-ch TTL	8-ch (Open collector)	-
DI-16TY-USB	16-ch TTL	-	-
DO-16TY-USB	-	16-ch (Open collector)	-
DIO-24DY-USB		Bi-directional 24-ch LVTTL	-

USB DAQ & CONTROL DEVICES

Operating similarly to PCI/PCI Express boards
Multi-channels I/O with mass connector

The X series



BENEFITS OF THE X-SERIES



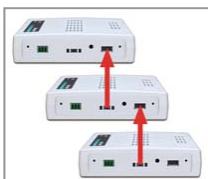
Same Functionality & Compatibility as Expansion board

The X series is a USB1.1/2.0-compliant device, and matches the capabilities of PCI Express/PCI board for desktop PC. Products in the X series has high-compatibility with expansion boards for desktop PC. Such as driver library API but connector & pin assignment, I/O circuit and digital filter.



Attached USB cable (1.8m) with a cover

Every product in this X series has 1.8m USB cable that is enough length to connect module to computer. Module's side has a connector cover to prevent unplugged cable.



USB Hub Function

Products in the X series have a 1-port USB hub function. Using a daisy chain style connection, up to 4 of CONTEC's USB modules can be connected through a single USB port on the host PC.

* When you use this usb hub function that is on module's side, a module needs to be powered by the attached AC adapter.



For Embedded System

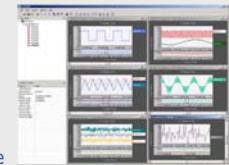
USB I/O Unit Bracket for the X series
BRK-USB-X

SUPPORT SOFTWARE

C-LOGGER

Windows 7/Vista/XP

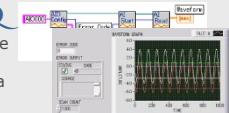
It provides data graph drawing of bulk data without any need for annoying programming.



Attached Software

LabVIEW-compliant VI-DAQ

You can use this series in the same way as a LabVIEW-compliant standard data acquisition VI with a special library VI-DAQ.



Free Download

MATLAB-compliant ML-DAQ

You can use this series products as DAQ board of MATLAB data acquisition toolbox with a special library, ML-DAQ.



Free Download

Driver library API-USB

This software supports various data acquisition & control USB products. It is the driver software of development/run time as license free.



Attached Software

MULTI-FUNCTION DAQ & ANALOG I/O

Product Code	Resolution	Sample Rate	Channel*	Digital I/O	Counter	Analog Output
HOT AIO-163202FX-USB	16bit	500kHz	32SE(16DI)	16	2	2
NEW AI-1664LAX-USB	16bit	100kHz	64SE(32DI)	8	1	-

* SE: Single end input 2-wires connection DI: Differential input 3~4-wires connection

ANALOG OUTPUT

Product Code	Resolution	Update Rate	Channel	Digital I/O	Counter
AO-1604LX-USB	16bit	100kHz	4	8	1

DIGITAL INPUT / OUTPUT

Product Code	Digital Input	Digital Output	Add. function
DIO-1616LX-USB	16-ch (Opto-isolated)	16-ch (Open collector)	-
DIO-1616BX-USB	16-ch (Opto-isolated)	16-ch (Open collector)	12VDC Built-in power
NEW DIO-1616RYX-USB	16-ch (Opto-isolated)	16-ch (Relay contact)	-
DIO-3232LX-USB	32-ch (Opto-isolated)	32-ch (Open collector)	-
DIO-6464LX-USB	64-ch (Opto-isolated)	64-ch (Open collector)	-
DIO-48DX-USB	Bi-directional 48-ch TTL		-
NEW RRY-16CX-USB	-	16-ch (Relay contact)	-

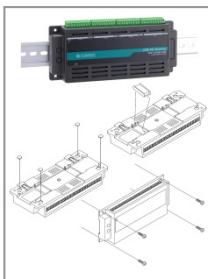
USB DAQ & CONTROL DEVICES

Best for embedded remote I/O systems
Screw terminal connection without cables



The N series

BENEFITS OF THE N-SERIES



The Best Module for Embedded System!

The N series is mountable on 35mm DIN rail by itself. They have fixable hook that makes reliable installation on a DIN rail. Also, there are 4 screw holes (fitting for $\varphi 3.5$) on each edge of a module for ease of mounting. CONTEC is pursuing ease of use for equipment. They are powered from USB port (bus powered), so a distribution is unnecessary for the module in an equipment.

Rubber feet and Magnet accompany for using them on desktop.

Various installations on the floor, wall, ceiling or desktop are possible by magnet and rubber feet.



Attached USB cable (1.8m) with a cover

Every product in this N series has 1.8m USB cable that is enough length to connect module to computer. Module's side has a connector cover to prevent unplugged cable.

Simple Wiring!

Attached removable terminal connector on module's side. Only connect electric cables to module and screw the terminal connector with precision flathead screwdriver, and you're done! Any other optional cables and terminal blocks are unnecessary.

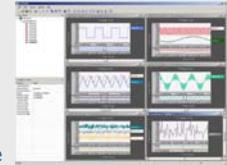
※ Strip off approximately 7 mm of the covered part of a wire rod and then insert it to the opening. After the insertion, secure the wire rod with screws. Compatible wires are AWG 28 - 16.

SUPPORT SOFTWARE

C-LOGGER

Windows 7/Vista/XP

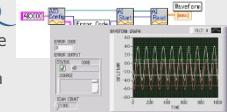
It provides data graph drawing of bulk data without any need for annoying programming.



Attached Software

LabVIEW-compliant VI-DAQ

You can use this series in the same way as a LabVIEW-compliant standard data acquisition VI with a special library VI-DAQ.



Free Download

MATLAB-compliant ML-DAQ

You can use this series products as DAQ board of MATLAB data acquisition toolbox with a special library, ML-DAQ.



Free Download

Driver library API-USB

This software supports various data acquisition & control USB products. It is the driver software of development/run time as license free.



Attached Software

MULTI-FUNCTION DAQ & ANALOG I/O

Product Code	Resolution	Sample Rate	Channel*	Digital I/O	Counter	Analog Output
NEW AIO-120802LN-USB	12bit	200kHz	8SE(4DI)	16	1	2
NEW AIO-121602LN-USB	12bit	500kHz	16SE(8DI)	16	1	2

* SE: Single end input 2-wires connection DI: Differential input 3~4-wires connection

DIGITAL INPUT / OUTPUT

Product Code	Digital Input	Digital Output	Add. function
NEW DIO-0808RN-USB	8-ch (Opto-isolated)	8-ch (Relay form C)	-
NEW DIO-1616HN-USB	16-ch (Opto-isolated)	16-ch (Open collector)	-

35mm DIN Rail Mounting & Channels Expandable USB Module Series are Available!



12-bit Isolated Analog Input (8-ch) ADI12-8(USB)GY	12-bit Isolated Analog Output (4-ch) DAI12-4(USB)GY	Opto-Isolated Digital I/O (8-ch each) DIO-8/8(USB)GY	Opto-Isolated Digital I/O (16-ch each) DIO-16/16(USB)
16-bit Isolated Analog Input (4-ch) ADI16-4(USB)	16-bit Isolated Analog Output (4-ch) DAI16-4(USB)	Opto-Isolated Digital I Input (16-ch) DI-16(USB)GY	Opto-Isolated Digital Input (32-ch) DI-32(USB)
Pt100 Thermo-sensor Input (4-ch) PT1-4(USB)	Counter Input Module CNT24-2(USB)GY	Opto-Isolated Digital Output (16-ch) DO-16(USB)GY	Opto-Isolated Digital Output (32-ch) DO-32(USB)

USB DAQ & CONTROL DEVICES

Conversion RS-232C/422 & GPIB Communications with USB

Micro Converter series



BENEFITS OF SERIAL COMM SERIES



Connect RS-232C/422A/485

Serial Communication devices from USB port

CONTEC's serial comm devices are compatible with USB 1.1/2.0. The Data comm is possible to connect a Windows/Linux-compliant PC that has USB port and comm devices that has RS-232C port such as measurement equipment and audio/video equipment. The maximum transfer speed is 921,600bps, and each port has FIFO buffer memory (Transmit:126-byte, Recieve:384byte), so they provide stable data transfer at high-speed.

Friendly 9-pin D-SUB Connector & Attached a Gender Changer

These products have a friendly 9-pin D-SUB connector same as computer. They are female type, so they can be connected to comm device (male type) including modem. Also, when you use an attached gender changer, the cable is expandable with commercial serial cable (female to female).

BENEFITS OF GPIB COMM SERIES



Connect GPIB Comm devices from USB Port

CONTEC's GPIB communications devices are compatible with USB 1.1/2.0. The Data communication is possible to connect a Windows-compliant PC that has USB port and a communication devices that has GPIB communication port such as measurement equipment.

GPIB Controller Developed by CONTEC

Assuring Reliable Long-term Availability

Equipped with a self-developed controller that features upward compatible μPD7210. It makes long-term stable supply.

RS-232C / RS-422 / RS-485

Product Code	Port	Standard	Baud rate
HOT COM-1(USB)H	1	RS-232C (Async.)	300 - 921,600bps
COM-1P(USB)H	1(Isolated)	RS-232C (Async.)	300 - 921,600bps
COM-1PD(USB)H	1(Isolated)	RS-422A/485 (Async.)	300 - 921,600bps

GPIB (IEEE488.1/IEEE488.2)

Product Code	Port	Standard Compatibility	Transfer Rate
HOT GP-IB(USB)FL	1	IEEE-488 / IEEE-488.2	1.5Mbyte/sec max.



N E W COM-4CX-USB

- Compatible with a USB1.1/USB2.0 Bus power
- Maximum baud rate 921,600bps
- Compatible with 32bit/64bit Windows 7, Vista, XP, Server 2003, 2000, Me and 98
- Used 9 pin D-SUB connector
- USB hub function (1 port)
- Attached USB cable attachment (prevention of unplugged cable on the main unit's side)
- Attached Windows Driver (CD-ROM) and USB cable (1.8m)

USB DAQ & CONTROL DEVICES

MULTI-FUNCTION DAQ & ANALOG INPUT

Product Code	Resolution	Sample Rate	Channel*	Digital I/O	Counter	Analog Output
ADI12-8(USB)GY	12bit	1.66kHz	8	-	-	-
ADI16-4(USB)	16bit	5kHz	4	-	-	-
PTI-4(USB)	0.01	200Hz	4 Pt100	-	-	-
HOT AI-1608AY-USB	16bit	100kHz	8SE	8	-	-
NEW AI-1664LAX-USB	16bit	100kHz	64SE(32DI)	8	1	-
AO-1604LX-USB	16bit	100kHz	-	8	1	4
HOT AIO-160802AY-USB	16bit	100kHz	8SE	8	-	2
NEW AIO-120802LN-USB	12bit	200kHz	8SE(4DI)	16	1	2
NEW AIO-121602LN-USB	12bit	500kHz	16SE(8DI)	16	1	2
HOT AIO-163202FX-USB	16bit	500kHz	32SE(16DI)	16	2	2

* SE: Single end input 2-wires connection DI: Differential input 3 - 4-wires connection

DIGITAL INPUT / OUTPUT

Product Code	Digital Input	Digital Output	Add. function
HOT DIO-0808LY-USB	8-ch (Opto-isolated)	8-ch (Open collector)	-
NEW DIO-0808RN-USB	8-ch (Opto-isolated)	8-ch (Relay form C)	-
DIO-1616LX-USB	16-ch (Opto-isolated)	16-ch (Open collector)	-
DIO-1616BX-USB	16-ch (Opto-isolated)	16-ch (Open collector)	12VDC Built-in power
NEW DIO-1616HN-USB	16-ch (Opto-isolated)	16-ch (Open collector)	-
NEW DIO-1616RYX-USB	16-ch (Opto-isolated)	16-ch (Relay contact)	-
DIO-3232LX-USB	32-ch (Opto-isolated)	32-ch (Open collector)	-
DIO-6464LX-USB	64-ch (Opto-isolated)	64-ch (Open collector)	-
DI-16TY-USB	16-ch TTL	-	-
DO-16TY-USB	-	16-ch (Open collector)	-
NEW RRY-16CX-USB	-	16-ch (Relay contact)	-
DIO-0808TY-USB	8-ch TTL	8-ch (Open collector)	-
DIO-24DY-USB	Bi-directional 24-ch LVTTL		
DIO-48DX-USB	Bi-directional 48-ch TTL		

COUNTER

Product Code	Channel	Resolution	Max Frequency
CNT24-2(USB)GY	2	24bit	500kHz

RS-232C / RS-422 / RS-485

Product Code	Port	Standard	Baud rate
HOT COM-1(USB)H	1	RS-232C (Async.)	300 - 921,600bps
COM-1P(USB)H	1(Isolated)	RS-232C (Async.)	300 - 921,600bps
COM-1PD(USB)H	1(Isolated)	RS-422A/485 (Async.)	300 - 921,600bps
NEW COM-4CX-USB	4	RS-232C (Async.)	300 - 921,600bps

GPIB (IEEE488.1/IEEE488.2)

Product Code	Port	Standard Compatibility	Transfer Rate
HOT GP-IB(USB)FL	1	IEEE-488 / IEEE-488.2	1.5MB/sec max.

OTHER BUSES & EMBEDDED PC

Data Acquisition (DAQ) & Control

Providing USB modules is not the only CONTEC's solution. We are a worldwide pioneer that provide components for creating PC-based measurement control systems. We provide over 400 products, and you will surely be able to find anything you want.

If the product you are looking for is not on our product list, please let us know. We will propose to you the best way from variety of perspectives.



PCI/PCI Express Board

CONTEC has a super line up for you ranging from high-end boards, such as 100MHz high-speed sampling, to low-cost boards which has basic function. We get to market fast with new local bus standardized products, and believe this is one of our missions.



ISA Board

CONTEC makes a full effort to continue to provide same products. ISA board is our typical product still now. Because we flexibly change our board design when using parts are discontinued to continue to provide them.



Custom Computer

CONTEC is a electronics company which has a development technique for embedded PC. We enable flexible provision of your own minisize controller that has DAQ and control devices in embedded PC in quick delivery.

Our Commitment to Quality

CONTEC is a company of designers and engineers dedicated to delivering best-value products and solutions based on innovative applications of the latest technology.

CONTEC's comprehensive quality assurance framework defines specific quality requirements to deliver unsurpassable reliability without sacrificing performance and usability. For example, our products must pass more than 500 check points, proven and accumulated through over 30 years product development experience, before they are shipped to our customers.

