Related Products

1. CAN Bus to Ethernet Gateway
2. Serial Device to Ethernet Gateway
3. Wireless ZigBee Series
1. CAN Bus to Ethernet Gateway

CAN bus Common Features
- Compatible with CAN specification 2.0A and 2.0B
- Fully compliant with the ISO-11898-2 standard
- Support several kinds of bauds from 10K to 1 Mbps
- 2500 Vrms photo couple isolation on the CAN bus
- Jumper or DIP switch for 120 Ω terminal resistor of CAN bus
- The max baud is 1 Mbps and the max length is 5000 m
- DeviceNet/CANopen/J1939...applications

The relation of CAN bus Baud and Length

<table>
<thead>
<tr>
<th>Baud (bit/sec)</th>
<th>Ideal Bus Length (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1M</td>
<td>25</td>
</tr>
<tr>
<td>800K</td>
<td>50</td>
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<tr>
<td>500K</td>
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<td>50K</td>
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</tr>
<tr>
<td>20K</td>
<td>2500</td>
</tr>
<tr>
<td>10K</td>
<td>5000</td>
</tr>
</tbody>
</table>

CAN/Ethernet PAC

μPAC-7186EXD-CAN

μPAC-7186 CAN bus series Programmable Automation Controller

The μPAC-7186EXD-CAN PACs (Programmable Automation Controller) are powered by 80186-80 MHz CPU with 512K bytes of static RAM, and 512K bytes of Flash memory with CAN, RS-232, RS-485 and Ethernet port.

Features
- High reliability in harsh environment
- Embedded MiniOS7, anti-virus
- Built-in watchdog timer (WDT)
- Ethernet Protocols: TCP, UDP, IP, ICMP, ARP
- Faster 10/100M Ethernet port
- Support virtual COM technology
- Free easy-to-use software development toolkits
- Modbus protocol
- Support DeviceNet/CANopen/J1939...applications

Applications

Wiring

Ordering Information

μPAC-7186EXD-CAN
Programmable Automation Controller with two series communication port (RS-232/RS-485), one CAN port, one Ethernet port, 7-segment Display, 4 programmable LEDs, 512K flash, 512K SRAM, developing tool kit, MiniOS7.
High Reliability Industrial Ethernet Switch for Rugged Environment

**Intelligent Ethernet to CAN Gateway**

**I-7540D**
Internet communication controller with one CAN bus, one RS-232, one RS-485 and one Ethernet
I-7540D is a CAN-Ethernet Gateway to control networked communication between CAN and Ethernet. It also can be used as a Ethernet to RS-232/485 devices Server.

- High reliability in harsh environment
- Built-in 80186-80 MHz CPU
- Built-in watchdog timer (WDT)
- COM driver support interrupt & 1K QUEUE Input & Output buffer
- Support one RS-232 port, one RS-485 port and one CAN port
- Support virtual COM technology
- 2500 Vrms photo-isolation protection on CAN side
- TCP/UDP protocol transmission between CAN bus and Ethernet
- Free CAN monitor tools

**Ordering Information**

| I-7540D | Internet communication controller with one CAN bus, one RS-232, one RS-485 and one Ethernet |

**CANopen Master/Modbus TCP Server Gateway**

**GW-7433D**
Internet communication controller with one CAN bus, one RS-232, one RS-485 and one Ethernet

- Programmable standard CANopen baud, such as 10 Kbps, 20 Kbps, 50 Kbps
- 125 Kbps, 250 Kbps, 500 Kbps, 800 Kbps and 1 Mbps
- Support maximum 50 TxPDO, 50 RxPDO, 15 SDO to SDO server
- Support Communication Object: TxPDO, RxPDO, and server SDO
- Support on-line configure CANopen slaves
- Communicate with CANopen slaves automatically when GW-7433D boots up
- Allow 5 Modbus/TCP masters to access GW-7433 simultaneously
- CANopen Version: DS301 V4.01
- Device Profile: DSP-401 v2.0

**Ordering Information**

| GW-7433D | Modbus/TCP server to CANopen master Gateway |

**DeviceNet Master/Modbus TCP Server Gateway**

**I-7243D**
Modbus/TCP server to DeviceNet master Gateway

- Programmable DeviceNet Master MAC 1D
- Programmable DeviceNet transfer-rate 125K, 250K, 500K
- Supports maximum DeviceNet devices up to 63
- Predefined Master/Slave Connection Set
- The maximum Fragment number is (Input/Output) up to 64
- Supports I/O Operation Mode: Poll, Bit-Strobe and Change Of State/Cyclic
- Supports on-line adding device into and removing device from network
- Supports boot-up auto communicate with slave devices
- Converts single Modbus/TCP to multi Modbus/RTU, setting by Utility
- Supports VxComm technique for every COM ports of controllers, setting by Utility
- Allowed multi-client (or master) access simultaneously
- Supports one Poll, one Bit-Strobe, one COS, one Cyclic IO connection for each DeviceNet device when connected with this module

**Ordering Information**

| I-7243D | Modbus/TCP server to DeviceNet master Gateway |
2. **Serial Device to Ethernet Gateway**

Programmable Device Servers

Connect every of your serial devices into Ethernet. PLCs, bar code readers, RFID readers, meters, motion controllers and many of other serial devices have been widely-used for years in every corner of the world. To make the most use of recorded data and to achieve remote control conveniently, we integrate those serial devices with modern networks, and the key to do these counts on the PDS. All PDS series feature programmable ability that makes even your various ideas into reality!

**Easy Serial Device Networking with “transparency”**

The most intuitive and easiest way to remotely control serial devices is to access serial devices transparently via network with no software modification required. PDS product lines offer two transparent applications:

- **TCP/IP Socket Programming**: By TCP/IP Socket Programming, it could exchange information with specific PDS serial port and talk to serial devices directly.

- **Virtual COM Ports**: ICP DAS developed a specific function called “Virtual COM” that simulates PDS serial ports as fixed PC COM ports. Virtual COM ports appear to the system and applications like real ones, the users could immediately enjoy the convenience brought by networking.

**VxComm Driver** creates virtual COM port(s) on Windows NT 4.0/2000/XP/2003/Vista32 and maps them to the remote serial port(s) of the PDS-700/DS-700 series. The user’s serial client programs need only to change to the virtual COM port to get the access of serial devices that are allocated in the Internet or Ethernet network via the PDS-700/DS-700 series. Easy serial devices networking just in minutes.
Programmable Enhanced “Device Servers”

The programmable feature of PDS series products makes it possible to effectively build in exclusive protocols and exclusive communication mechanism of complex applications in PDS. This provides the following advantages:

- **Effective network transmission:** Place your customized software on PDS to directly perform processions locally. The effective data and information could be sent back to PC periodically according to schedules planned in advance and devices could work independently on-site even when not connecting to a network. Therefore, the design of system could be much more flexible. It also reduces the need to rely on network, which is an inevitable factor for conventional DS (Device Server) - it has to keep on “talking” to PC via network to ensure status maintains transparency.

- **Previous development effort could be duplicated:** Along with serial devices, you could place your customized or value-add software on PDS to implement an intelligent Ethernet controller. This controller could be used in applications for next projects. It dramatically reduce programming job. In addition, your value-add software is embedded in PDS, if a computer system undergoes hardware replacement or upgrade; it doesn’t need to consider incompatible problems, therefore reduce system maintenance work.

Virtual I/O Highly Integrates On-Site Messages

I/O acquisition is very important when performing on-site integration, along with DCON utility provided by ICP DAS, the RS-485 of PDS could connect to I-7000 series products to offer abundant I/O modules for various purposes. For easier on-site integration operations, partial PDS models also provide Digital I/O, which is also supported by DCON utility or other DCON client programs.

"Virtual I/O" is the extension of "Virtual COM" technology that simulates PDS’s digital I/Os control as a virtual COM port (Port I/O) application on PC. And since now, you are able to access PDS’s digital I/Os by DCON protocol through the virtual COM port. Besides, DCON utility also supports configuring PDS’s digital I/Os through the help of "Virtual I/O" technology. So you can diagnose PDS’s digital I/Os and complete the I/Os application in a convenient way.
PDS-700 Programmable Device Servers

**Features**
- Networkable serial devices
- "Virtual COM" extend COM ports
- Powerful programmable device server
- "Virtual I/O" integrates on-site I/O
- Watchdog timer suitable for use in harsh environments
- 10/100 Base-TX Ethernet Controller
- (Auto-negotiating, auto MDI/MDI-X, LED indicator)
- Power reverse polarity protection circuit
- RS-485 port ESD protection circuit
- Self-tuner ASIC controller on RS-485 port
- Enables download of programs from PC
- 5-digit display (only for version with display)
- IP67 against the intrusion of dust, water, etc (IP67 version)
- RoHS compliant with No Halogen

**Specifications**
- CPU: 80186-80 MHz
- Ethernet: 10/100 Base-TX
- SRAM/Flash: 512 KB/512 KB
- COM1: 5-wire RS-232 (RXD, TXD, CTS, RTS, GND)
- UART: 16c550 or compatible
- Baud rate: 115200 bps Max.
- D/I: Source, Dry Type, L: 0 ~ 1V, H: 3.5 ~ 30V
- D/O: Open Collector, Sink/NPN, 30V/100 mA Max.
- Display: 7-segment LED display for D version
- Frame GND: Yes
- Mounting: DIN-Rail Mounting

**Selection Guide**

<table>
<thead>
<tr>
<th>Model</th>
<th>DI/DO</th>
<th>COM1</th>
<th>COM2</th>
<th>COM3</th>
<th>COM4</th>
<th>COM5</th>
<th>COM6</th>
<th>COM7</th>
<th>COM8</th>
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<td>2-wire RS-485</td>
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<tr>
<td>PDS-732</td>
<td>4/4</td>
<td>5-wire RS-232</td>
<td>2-wire RS-485</td>
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<td>PDS-752</td>
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<td>2-wire RS-485</td>
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<td>PDS-755</td>
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<td>2-wire RS-485</td>
<td>3-wire RS-232</td>
<td>3-wire RS-232</td>
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<td>-</td>
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<td>-</td>
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<tr>
<td>PDS-762</td>
<td>1/2</td>
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<td>2-wire RS-485</td>
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<td>3-wire RS-232</td>
<td>3-wire RS-232</td>
<td>3-wire RS-232</td>
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</tbody>
</table>

PDS-700D = PDS-700 + 7-Seg. LED Display
PDS-720/ PDS-720D
PDS-720: 2-Port Programmable Device Server
PDS-720D: PDS-720 with LED Display
- Ethernet: 10/100 Base-TX
- COM1: 5-Wire RS-232
- COM2: 2-Wire RS-485

PDS-721/ PDS-721D
PDS-721: 2-Port Programmable Device Server with DI/DO
PDS-721D: PDS-721 with LED Display
- Ethernet: 10/100 Base-TX
- COM1: 5-Wire RS-232
- COM2: 2-Wire RS-485
- D/O: 7-Channel, Sink/NPN, 30V/100 mA Max.
- D/I: 6-Channel, Source, Dry Type,
  L: 0 VDC ~ +1 VDC, H: +3.5 VDC ~ +30 VDC

PDS-732/ PDS-732D
PDS-732: 3-Port Programmable Device Server with DI/DO
PDS-732D: PDS-732 with LED Display
- Ethernet: 10/100 Base-TX
- COM1: 5-Wire RS-232
- COM2: 2-Wire RS-485
- COM3: 5-Wire RS-232
- D/O: 4-Channel, Sink/NPN, 30V/100 mA Max.
- D/I: 4-Channel, Source, Dry Type,
  L: 0 VDC ~ +1 VDC, H: +3.5 VDC ~ +30 VDC

PDS-734/ PDS-734D
PDS-734: 3-Port Programmable Device Server with DI/DO
PDS-734D: PDS-734 with LED Display
- Ethernet: 10/100 Base-TX
- COM1: 5-Wire RS-232
- COM2: 2-Wire RS-485
- COM3: 4-Wire RS-422
- D/O: 4-Channel, Sink/NPN, 30V/100 mA Max.
- D/I: 4-Channel, Source, Dry Type,
  L: 0 VDC ~ +1 VDC, H: +3.5 VDC ~ +30 VDC

PDS-742/ PDS-742D
PDS-742: 4-Port Programmable Device Server
PDS-742D: PDS-742 with LED Display
- Ethernet: 10/100 Base-TX
- COM1: 5-Wire RS-232
- COM2: 2-Wire RS-485
- COM3: 5-Wire RS-232
- COM4: 9-Wire RS-232

PDS-743/ PDS-743D
PDS-743: 4-Port Programmable Device Server with DI/DO
PDS-743D: PDS-743 with LED Display
- Ethernet: 10/100 Base-TX
- COM1: 5-Wire RS-232
- COM2: 2-Wire RS-485
- COM3: 4-Wire RS-422
- COM4: 3-Wire RS-232
- D/O: 4-Channel, Sink/NPN, 30V/100 mA Max.
- D/I: 4-Channel, Source, Dry Type,
  L: 0 VDC ~ +1 VDC, H: +3.5 VDC ~ +30 VDC

High Reliability Industrial Ethernet Switch for Rugged Environment
**Available Soon**

**PDS-752/ PDS-752D**

PDS-752: 5-Port Programmable Device Server  
PDS-752D: PDS-752 with LED Display
- Ethernet: 10/100 Base-TX
- COM1: 5-Wire RS-232
- COM2: 2-Wire RS-485
- COM3–5: 5-Wire RS-232

**PDS-755/ PDS-755D**

PDS-755: 5-Port Programmable Device Server  
PDS-755D: PDS-755 with LED Display
- Ethernet: 10/100 Base-TX
- COM1: 5-Wire RS-232
- COM2: 2-Wire RS-485
- COM3–5: 2-Wire RS-485

**PDS-762/ PDS-762D**

PDS-762: 6-Port Programmable Device Server  
PDS-762D: PDS-762 with LED Display
- Ethernet: 10/100 Base-TX
- COM1: 5-Wire RS-232
- COM2: 2-Wire RS-485
- COM3–6: 3-Wire RS-232
- D/O: 2-Channel, Sink/NPN, 30V/100 mA Max.
- D/I: 1-Channel, Source, Dry Type, L: 0 VDC ~ +1 VDC, H: +3.5 VDC ~ +30 VDC

**PDS-782/ PDS-782D**

PDS-782: 8-Port Programmable Device Server  
PDS-782D: PDS-782 with LED Display
- Ethernet: 10/100 Base-TX
- COM1: 5-Wire RS-232 (8-Pin RJ-45)
- COM2: 2-Wire RS-485 (8-Pin RJ-45)
- COM3: 5-Wire RS-232 (8-Pin RJ-45)
- COM4: 5-Wire RS-232 (8-Pin RJ-45)

**PDS-742-IP67**

4-Port Programmable Device Server with IP67 casing
- Ethernet: 10/100 Base-TX
- COM1: 5-Wire RS-232 (8-Pin RJ-45)
- COM2: 2-Wire RS-485 (8-Pin RJ-45) with 2500 Vrms isolation
- COM3: 5-Wire RS-232 (8-Pin RJ-45)
- COM4: 5-Wire RS-232 (8-Pin RJ-45)

**PDS-782-25/ PDS-782D-25**

PDS-782-25: 8-Port Programmable Device Server  
PDS-782D-25: PDS-782-25 with LED Display
- Ethernet: 10/100 Base-TX
- COM1: 5-Wire RS-232
- COM2: 2-Wire RS-485
- COM3–8: 3-Wire RS-232 (Male DB-9)
**DS-700 Device Servers**

### Selection Guide

<table>
<thead>
<tr>
<th>Model</th>
<th>D/I/DO</th>
<th>COM1</th>
<th>COM2</th>
<th>COM3</th>
<th>COM4</th>
<th>COM5</th>
<th>COM6</th>
<th>COM7</th>
<th>COM8</th>
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<tbody>
<tr>
<td>DS-712</td>
<td>-</td>
<td>5-wire RS-232</td>
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<td>-</td>
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<tr>
<td>DS-715</td>
<td>-</td>
<td>2-wire RS-485</td>
<td>4-wire RS-422</td>
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</tbody>
</table>

**NEW**

**DS-712**
1-Port RS-232 Device Server  
(Non-Programmable)
- Ethernet: 10/100 Base-TX
- COM1: 5-Wire RS-232

**DS-715**
1-Port RS-422/485 Device Server  
(Non-Programmable)
- Ethernet: 10/100 Base-TX
- COM1: 4-Wire RS-422 or 2-Wire RS-485  
  (2000 Vdc Isolation)

### Ordering Information

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS-712</td>
<td>Device Server with 1-Port RS-232</td>
</tr>
<tr>
<td>DS-715</td>
<td>Device Server with 1-Port RS-422/RS-485</td>
</tr>
</tbody>
</table>
3. Wireless ZigBee Series

Ethernet/Serial to ZigBee Converter

**ZB-2570/ ZB-2571**

ZB-2570/ZB-2571 is an Ethernet/RS-485/RS-232 to ZigBee network converter. It enables Ethernet/RS-232/485 devices to be wirelessly and easily connected to a new or existing system. ZB-2570 is a net Host and ZB-2571 is a net Slave. It also supports various data formats and baud rates that can be configured via a Windows-based GUI utility. The ZB-2570/ZB-2571 can implement an ad-hoc, star or mesh network topology.

In some existing systems that use an Ethernet/RS-485/RS-232 network, it is sometimes difficult to extend the new devices due to building structure issues, wiring problems or other reasons. The ZB-2570/ZB-2571 can be easily added to an existing system in order to extend your network.

**ZB-2550/ ZB-2551**

We also provide the ZB-2550 (Host) and the ZB-2551 (Slave) converters that only have RS-232/RS-485 interfaces.

**Specifications**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Channels</td>
<td>16</td>
</tr>
<tr>
<td>Receive Sensitivity</td>
<td>-102 dBm</td>
</tr>
<tr>
<td>Transmit Power</td>
<td>12 dBm</td>
</tr>
<tr>
<td>Data Encryption</td>
<td>AES-CTR</td>
</tr>
<tr>
<td>Network Topology Support</td>
<td>Star, Mesh and cluster tree</td>
</tr>
<tr>
<td>Certification</td>
<td>TUV</td>
</tr>
<tr>
<td>Antenna</td>
<td>2.4 GHz, 3 dBi Omni-Directional antenna</td>
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</table>

**Ordering Information**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZB-2550 CR</td>
<td>RS-485/RS-232 to ZigBee Converter (Host) (RoHS)</td>
</tr>
<tr>
<td>ZB-2550/S CR</td>
<td>RS-485/RS-232 to ZigBee Converter (Host) (RoHS) + GPSU06U-6 (Power Supply)</td>
</tr>
<tr>
<td>ZB-2551 CR</td>
<td>RS-485/RS-232 to ZigBee Converter (Slave) (RoHS)</td>
</tr>
<tr>
<td>ZB-2551/S CR</td>
<td>RS-485/RS-232 to ZigBee Converter (Slave) (RoHS) + GPSU06U-6 (Power Supply)</td>
</tr>
<tr>
<td>ZB-2570 CR</td>
<td>Ethernet/RS-485/RS-232 to ZigBee Converter (Host) (RoHS)</td>
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<tr>
<td>ZB-2570/S CR</td>
<td>Ethernet/RS-485/RS-232 to ZigBee Converter (Host) (RoHS) + GPSU06U-6 (Power Supply)</td>
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<tr>
<td>ZB-2571 CR</td>
<td>Ethernet/RS-485/RS-232 to ZigBee Converter (Slave) (RoHS)</td>
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<tr>
<td>ZB-2571/S CR</td>
<td>Ethernet/RS-485/RS-232 to ZigBee Converter (Slave) (RoHS) + GPSU06U-6 (Power Supply)</td>
</tr>
</tbody>
</table>
ZigBee AIO (Built-in Repeater Function)

Available Soon

ZB-2015
Wireless 6-channel RTD Input Module with 3-wire RTD Lead Resistance Elimination

- Analog Input
- Input Channels: 6
- Input Type: RTD
- Wire Connection: 2 or 3 Wires
- RTD Type: Pt100, Pt1000, Ni120, Cu100, Cu1000
- Resolution: 16-bit
- Sampling Rate: 12 Samples/Sec. (Total)
- Accuracy: +/-0.05%
- Voltage Input Impedance: >1 MΩ
- Open Wire Detection: Yes
- Individual Channel Configurable: Yes
- 3-wire RTD Lead Resistance Elimination: Yes
- ESD Protection: +/-4 kV Contact for Each Terminal, and +/-8 kV Air for Random Point
- Intra-module Isolation, Field to Logic: 3000 V DC
- Power Consumption: 1.5 W

Available Soon

ZB-2017
Wireless 8-channel Analog Input Module with High Voltage Protection

- Analog Input
- Input Channels: 8 Differential
- Input Type: +/-10 V, +/-5 V, +/-1 V, +/-500 mV, +/-150 mV
- -20 mA ~ +20 mA
  (Requires Optional External 125 Ω Resistor)
- Resolution: 16-bit/12-bit
- Sampling Rate: Normal Mode: 16-bit, 10 Samples/Sec. (Total)
  Fast Mode: 12-bit, 60 Sample/Sec. (Total)
- Accuracy: Normal Mode: +/-0.1% of FSR
  Fast Mode: +/-0.5% of FSR
- Zero Drift: +/-20 μV/°C
- Span Drift: +/-25 ppm/°C
- Common Mode Rejection: 86 dB
- Normal Mode Rejection: 100 dB
- Input Impedance: >1 MΩ
- Over Voltage Protection: 240 V rms
- ESD Protection: +/-4 kV Contact for Each Terminal
- Intra-module Isolation, Field to Logic: 3000 VDC
- Power Consumption: 1.5 W
ZB-2017C
Wireless 8-channel Current Input Module with High Common Voltage Protection

- Analog Input
- Input Channels: 8 Differential
- Input Type: +/-20 mA, 0~20 mA, 4~20 mA
- Resolution: 16-bit (Normal Mode)/12-bit (Fast Mode)
- Sampling Rate: Normal Mode: 16-bit, 10 Samples/Sec. (Total)
  Fast Mode: 12-bit, 60 Sample/Sec. (Total)
- Accuracy: +/-0.1% (Normal Mode)
  +/-0.5% (Fast Mode) or better
- Band Width: 15.7 Hz (Normal Mode)/78.7 Hz (Fast Mode)
- Zero Drift: +/-20 μV/°C
- Span Drift: +/-25 ppm/°C
- Input Impedance: 125 Ω
- Common Mode Rejection: 86 dB min.
- Normal Mode Rejection: 100 dB
- Common Voltage: +/-200 VDC
- ESD Protection: +/-4 kV Contact for Each Terminal
- Intra-module Isolation, Field to Logic: 3000 VDC
- Power Consumption: 1.5 W

ZB-2018
Wireless 8-channel Analog Input Module with High Voltage Protection

- Analog Input
- Input Channels: 8 Differential
- Input Type: +/-15 mV, +/-50 mV, +/-100 mV, +/-500 mV, +/-1V, +/-2.5 V, +/-20 mA (Requires Optional External 125 Ω Resistor) and Thermocouple Type J, K, T, E, R, S, B, N, C, L, M
- Resolution: 16-bit (Normal Mode)/12-bit (Fast Mode)
- Sampling Rate: Normal Mode: 16-bit, 10 Samples/Sec. (Total)
- Accuracy: +/-0.1% (Normal Mode)
  +/-0.5% (Fast Mode) or better
- Input Impedance: 1 MΩ
- Over Voltage Protection: 240 Vrms
- Open Thermocouple Detection: Yes
- ESD Protection: +/-4 kV Contact for Each Terminal
- Intra-module Isolation, Field to Logic: 3000 VDC
- Power Consumption: 1.5 W

ZB-2024
Wireless 4-channel Voltage/Current Output Module

- Analog Output
- Output Channels: 4
- Output Type: +/-10 VDC, +/-5 VDC, 0 VDC ~ +5 VDC, 0 VDC ~ +10 VDC, 0 mA ~ 20 mA, 4 mA ~ 20 mA
- Resolution: 12-bit
- Accuracy: +/-0.1% of FSR
- Zero Drift: Voltage: +/-30 μV/°C
- Span Drift: +/-25 ppm/°C
- Programmable Output Slope: 0.0625 ~ 512 V/Sec.
- Voltage Output Capability: 10 mA @ 10 V
- Current Load Resistor: 500 Ω
- Power-LP and Safe Value: Yes
- Intra-module Isolation, Field to Logic: 2500 VDC
- Power Consumption: 1.5 W
High Reliability Industrial Ethernet Switch for Rugged Environment

ZB-2026
Wireless 4-channel Voltage Input, 2-channel Voltage Output and 2-channel Digital Output

**Analog Input**
- **Input Channels:** 4 Differential
- **Input Type:** +/-10 V, +/-5 V, +/-1 V, +/-500 mV, +/-150 mV, -20 mA ~ +20 mA
  (Requires Optional External 125 Ω Resistor)
- **Resolution:** 16-bit (Normal Mode)/12-bit (Fast Mode)
- **Sampling Rate:** Normal Mode: 16-bit, 10 Samples/Sec. (Total)
  Fast Mode: 12-bit, 60 Sample/Sec. (Total)
- **Accuracy:** +/-0.1% (Normal Mode)
  +/-0.5% (Fast Mode) or better

**Analog Output**
- **Output Channels:** 2
- **Output Type:** 0 Vdc ~ +10 Vdc
- **Resolution:** 12-bit
- **Accuracy:** +/-0.1% of FSR
- **Programmable Output Slope:** 0.0625 ~ 512 V/Sec.
- **Voltage Output Capability:** 10 mA @ 10 V
- **Power-Up and Safe Value:** Yes

**Digital Output**
- **Output Channels:** 2 (Sink)
- **Output Type:** Isolated Open Collector
- **Max Load Current:** 700 mA/Channel
- **Load Voltage:** 5 Vdc ~ 50 Vdc

**Ordering Information**
- **ZB-2015 CR** Wireless 6-channel RTD Input Module with 3-wire RTD Lead Resistance Elimination (RoHS)
- **ZB-2017 CR** Wireless 8-channel Analog Input Module with High Voltage Protection (RoHS)
- **ZB-2017C CR** Wireless 8-channel Current Input Module with High Common Voltage Protection (RoHS)
- **ZB-2018 CR** Wireless 8-channel Analog Input Module with High Voltage Protection (RoHS)
- **ZB-2024 CR** Wireless 4-channel Voltage/Current Module (RoHS)
- **ZB-2026 CR** Wireless 4-channel Voltage Input, 2-channel Voltage Output and 2-channel Digital Output

**Important Note:** The ZigBee AIO modules need a ZB-2570 to coordinate the data transmission route, please remember to also order a ZB-2570 when you purchase the ZigBee AIO products.

## ZigBee DIO (Built-in Repeater Function)

**NEW**

ZB-2042
Wireless 14-channel Isolated Digital Output Module

**Digital Output**
- **Output Channels:** 14 (Sink)
- **Output Type:** Isolated Open Collector
- **Max Load Current:** 700 mA/Channel
- **Load Voltage:** 5 Vdc ~ 50 Vdc
- **ESD Protection:** +/-4 kV Contact for Each Terminal
- **Intra-module Isolation, Field to Logic:** 3750 V rms
- **Power Consumption:** 1.7 W
**ZB-2043**

Wireless 4-channel PhotoMOS Relay Output and 4-channel Open Collector Output Module

- **Relay Output**
  - Output Channels: 4
  - Output Type: PhotoMOS Relay, Form A
  - Load Voltage: 60 Vdc/Vac
  - Max. Load Current:
    - 60V/1.0A (Operating Temperature: -25 °C ~ +40 °C)
    - 60V/0.8A (Operating Temperature: +40 °C ~ +60 °C)
    - 60V/0.7A (Operating Temperature: +60 °C ~ +75 °C)
- Turn On Time: 5.0 ms
- Turn Off Time: 0.5 ms

- **Digital Output**
  - Output Channels: 4 (Sink)
  - Output Type: Isolated Open Collector
  - Max Load Current: 700 mA/Channel
  - Load Voltage: +5 Vdc ~ +50 Vdc
  - ESD Protection: +/-4 kV Contact for Each Terminal
  - Intra-module Isolation, Field to Logic: 3750 Vrms
  - Power Consumption: 1.5 W

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**ZB-2052**

Wireless 14-channel Isolated Digital Input Module

- **Digital Input**
  - Input Channels: 14
  - Wet Contact (Sink/Source): On Voltage Level: +3.5 Vdc ~ +30 Vdc
  - Off Voltage Level: +1 Vdc Max.
  - Input Impedance: 3 kΩ, 0.33 W
  - Counter
    - Channels: 14
    - Max. Counts: 16-bit (65535)
    - Min. Pulse Width: 5 ms
    - Max. Input Frequency: 100 Hz
  - Intra-module Isolation, Field to Logic: 3750 Vrms
  - ESD Protection: +/-4 kV Contact for Each Terminal
  - Power Consumption: 1.7 W

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**ZB-2053**

Wireless 8-channel Isolated Digital Input Module with 16-bit Counters

- **Digital Input**
  - Input Channels: 8
  - Input Type: Isolation, Wet Contact (Sink/Source)
  - Input Level: On Voltage Level: +3.5 Vdc ~ +30 Vdc
  - Off Voltage Level: +1 Vdc Max.
  - Input Impedance: 3 kΩ, 0.33 W
  - Intra-module Isolation, Field to Logic: 3000 Vdc
  - ESD Protection: +/-4 kV Contact for Each Terminal
  - EFT Protection: +/-4 kV for Power Input
  - Surge Protection: +/-3 kV for Power Input
  - Power Consumption: 1 W Max.
**ZB-2060**

**Digital Input**
- Input Channels: 6
- Input Type: Isolation, Wet Contact (Sink/Source)
- Input Level: On Voltage Level: +3.5 V_{oc} - +30 V_{oc}
  - Off Voltage Level: +1 V_{oc} Max.
- Input Impedance: 3 kΩ, 0.33 W

**Digital Output**
- Output Channels: 4
- Output Type: Power Relay, Form A
- Contact Rating: 5 A @ (250 V_{ac}/30 V_{dc})
- ESD Protection: +/-4 kV Contact for Each Terminal
- EFT Protection: +/-4 kV for Power
- Surge Protection: +/-3 kV for Power
- Power Consumption: 1.2 W

**Ordering Information**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>RoHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZB-2042 CR</td>
<td>Wireless 14-channel Isolated Digital Output Module (RoHS)</td>
<td></td>
</tr>
<tr>
<td>ZB-2043 CR</td>
<td>Wireless 4-channel PhotoMOS Relay Output and 4-channel Open Collector Output Module (RoHS)</td>
<td></td>
</tr>
<tr>
<td>ZB-2052 CR</td>
<td>Wireless 14-channel Isolated Digital Input Module (RoHS)</td>
<td></td>
</tr>
<tr>
<td>ZB-2053 CR</td>
<td>Wireless 8-channel Isolated Digital Input Module with 16-bit Counters (RoHS)</td>
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</tr>
<tr>
<td>ZB-2060 CR</td>
<td>Wireless 6-channel Isolated Digital Input and 4-channel Relay Output Module (RoHS)</td>
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</tbody>
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**Important Note:** The ZigBee DIO modules need a ZB-2570 to coordinate the data transmission route, please remember to also order a ZB-2570 when you purchase the ZigBee DIO products.

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**ZB-2510**

**ZigBee Repeater**
- RF Channels: 16
- Receive Sensitivity: -102 dBm
- Transmit Power: 12 dBm
- Data Encryption: AES-CTR
- Network Topology Support: Star, Mesh and Cluster tree
- Certification: TUV
- Antenna: 2.4 GHz, 3 dBi Omni-Directional antenna
- Power Consumption: 1.5 W

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</tr>
</thead>
<tbody>
<tr>
<td>ZB-2510 CR</td>
<td>ZigBee Repeater (RoHS)</td>
</tr>
</tbody>
</table>