



#### Introduction.

The ZT-2060-IOP module is a ZigBee coordinator that provides both 4-channel digital input and 4-channel digital output. An embedded I/O channel binding function means that there is no need to use an external controller.

and 4-ch Relay Output Module

The status of each channel is bound to a remote channel of the ZT-2060. The ZT-2060-IOP continually updates the status of the DO channel of the remote ZT-2060 based on its own DI channels. It also reads the status of the DI channel of the remote ZT-2060 to synchronize its own DO channels.

The ZT-2060-IOP also provides external DIP switches for easy configuration, which can be used to synchronize the digital signals in any difficult wiring environment.

# System Specifications .

| Communication Interface                  |  |  |
|--|--|--|
| Wireless Standards                       | ZigBee 2007 Pro  |  |
| Transmission Power                       | 11 dBm (FCC Certificated)  |  |
| 2.4 GHz Antenna                          | 5 dBi Omni directional   |  |
| Transmission Range (LoS)                 | 700 m (Typical)  |  |
| Certification                            | CE/FCC, FCC ID   |  |
| Max. Slaves in a ZigBee Network          | 255  |  |
| Hot Swap                                 | Rotary and DIP switch  |  |
| LED Indicators                           |  |  |
| Power                                    | 1 LED, Red   |  |
| ZigBee Communication                     | 1 LED, Green   |  |
| Digital Input and Output                 | 4 Green LEDs for Digital Input<br>4 Red LEDs for Relay Output                                  |  |
| Isolation                                |  |  |
| Intra-module Isolated,<br>Field-to-Logic | 2500 VDC   |  |
| EMS Protection                           |  |  |
| ESD (IEC 61000-4-2)                      | 4 kV Contact for Power Line, Communication Line<br>and each Channel, 8 kV Air for Random Point |  |
| EFT (IEC 61000-4-4)                      | 4 kV for Power Line  |  |
| Power                                    |  |  |
| Input Voltage Range                      | +10 VDC ~ +30 VDC  |  |
| Power Consumption                        | 1.4 W Max.   |  |
| Mechanical                               |  |  |
| Flammability                             | Fire Retardant Materials (UL94-V0 Level)   |  |
| Dimensions (W x L x H)                   | 33 mm x 94 mm x 110 mm   |  |
| Installation                             | DIN-Rail   |  |
| Environment                              |  |  |
| Operating Temperature                    | -25 ~ +75°C  |  |
| Storage Temperature                      | -30 ~ +80°C  |  |
| Relative Humidity                        | 10 ~ 90% RH, Non-condensing  |  |

#### Features

- ISM 2.4 GHz Operating Frequency
- Fully Compliant with 2.4G IEEE 802.15.4/ZigBee Specifications
- Wireless Transmission Range up to 700 m
- 4 Channels Pair-connection of the Digital Input and Relay Output
- Surge and ESD Protection
- DIN-Rail Mountable



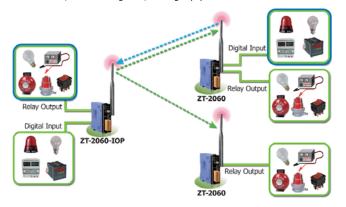






### Applications.

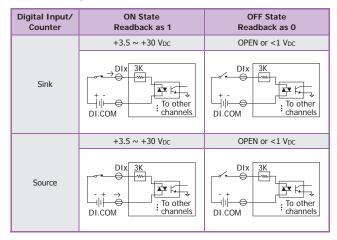
Building Automation, Factory Automation, Machine Automation, Remote Maintenance, Remote Diagnosis, Testing Equipment.

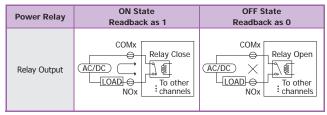


# I/O Specifications .

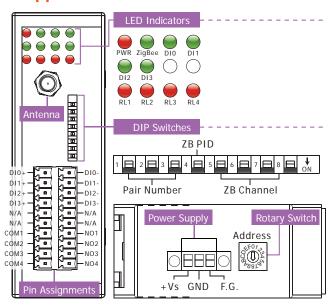
| Digital I              | Digital Input               |   |  |
|------------------------|-----------------------------|---|--|
| Input Channels         |                             | 4   |  |
| Input Types            |                             | Isolated, Wet Contact (Sink/Source)               |  |
| Input                  | On Voltage Level            | +3.5 VDC ~ +30 VDC                                |  |
| Level                  | Off Voltage Leve            | +1 V <sub>DC</sub> Max.                           |  |
| Input Impedance        |                             | 3 kΩ, 0.33 W                                      |  |
| Relay Output           |                             |   |  |
| Output Channels        |                             | 4   |  |
| Output Types           |                             | Power Relay, Form A                               |  |
| Contact Rating         |                             | 5 A @ (250 VAC/30 VDC)                            |  |
| Max. Contact Voltage   |                             | 270 VAC/125 VDC                                   |  |
| Operate Time           |                             | 10 ms max. at Rated Voltage                       |  |
| Release Time           |                             | 5 ms max. at Rated Voltage                        |  |
| Endurance              | Electrical                  | Resistive Load: 100,000 ops. min. (10 ops/minute) |  |
|                        | Mechanical                  | At No Load: 20,000,000 ops. min. (300 ops/minute) |  |
| Dielectric<br>Strength | Between Contacts            | 750 VAC for 1 minute                              |  |
|                        | Between Coil to<br>Contacts | 3,000 VAC for 1 minute                            |  |
| Insulation             | Resistance                  | 5,080 V (1.2/50 μs)                               |  |
| Surge Strength         |                             | 5 ms max. at Rated Voltage                        |  |
| ESD Protection         |                             | +/-4 kV contact for each channel                  |  |

## Wiring

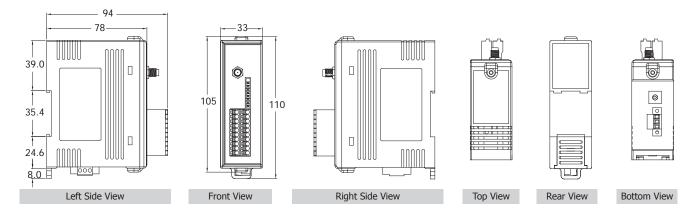




### ■ Appearance \_\_



### **■** Dimensions (Units: mm) \_



#### Ordering Information .

ZT-2060-IOP CR ZigBee Pair-connection to the 4-ch Isolated Digital Input and 4-ch Relay Output Module (Host, ZigBee Coordinator) (RoHS)

ZT-2060 CR ZigBee 6-ch Isolated Digital Input and 4-ch Relay Output Module (Slave, ZigBee Router) (RoHS)

Important Note: ZigBee Pair-connection module is a ZigBee host to coordinate the ZigBee I/O module. Please remember to order at least one ZT-2060 module as the ZigBee I/O pairing.

#### Accessories \_\_\_\_\_

| MDR-20-24  | 24 VDC/1.0 A, 24 W Power Supply with DIN-Rail Mounting |
|------------|--|
| ZT-2510 CR | ZigBee Repeater (RoHS)                                 |