



Introduction

The ZT-2042 offers 4 PhotoMOS relay output channels and 4 sink-type digital output channels with short circuit protection. Each channel features photo couple isolation. The ZT-2042 has 8 LED indicators to display the DO channel status. 4kV ESD protection and 3000 VDC intra-module isolation are the standard. Users can easily configure the module address, protocol, checksum, ZB-PID and ZB-channel settings using a combination of rotary and DIP switches.

System Specifications

| Communication Interface | |
|---------------------------------------|---|
| Wireless Standards | ZigBee 2007 Pro |
| Transmission Power | 11 dBm (FCC Certified) (Max 19 dBm) |
| 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 |
| ZB-100R/ZB-100T Support | - |
| Protocols | Supports DCON and Modbus RTU Protocols |
| Hot Swap | Rotary and DIP switch |
| LED Indicators | |
| Power | 1 LED, red |
| ZigBee Communication | 1 LED, green |
| Digital Output | 8 LEDs, red |
| Isolation | |
| Intra-module Isolated, Field-to-Logic | 3000 Vdc |
| EMS Protection | |
| ESD (IEC 61000-4-2) | 4 kV Contact for Power Line, Communication Line and each Channel, 8 kV Air for Random Point |
| EFT (IEC 61000-4-4) | 4 kV for Power |
| Surge (IEC 61000-4-5) | 3 kV for Power |
| Power | |
| Power Consumption | 1.32 W Max. |
| Mechanical | |
| Flammability | Fire Retardant Materials (UL94-V0 Level) |
| Dimensions (W x L x H) | 33 mm x 87 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 |

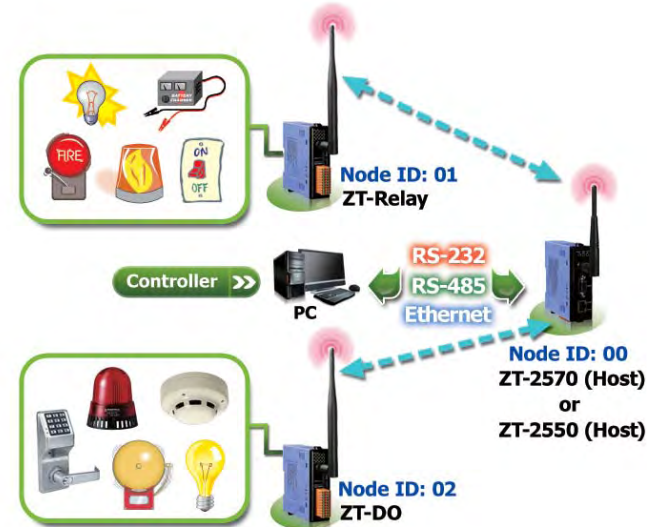
Features

- ISM 2.4 GHz Operating Frequency
- Fully Compliant with 2.4G /ZigBee Specifications
- Wireless Transmission Range up to 700 m
- GUI Configuration Software (Windows Version)
- 4 PhotoMOS Relay Output Channels and 4 Open Collector Digital Output Channels
- Short Circuit Protection
- Surge and ESD Protection
- DIN-Rail Mountable



Applications

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



I/O Specifications

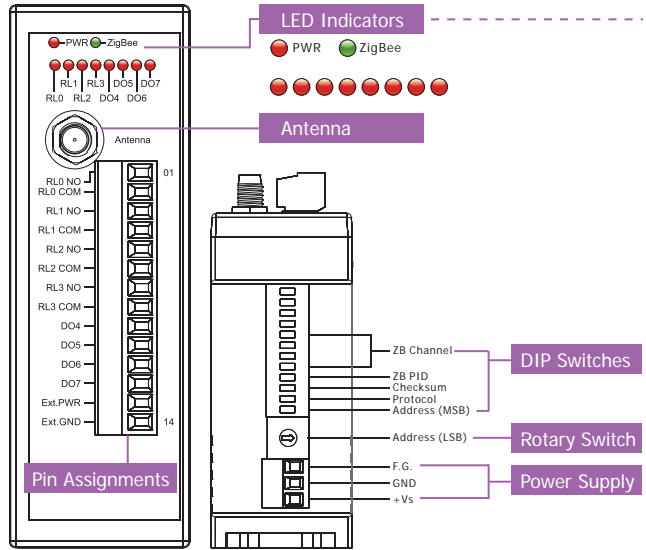
| Relay Output | |
|---|---|
| Output Channels | 4 |
| Output Types | PhotoMOS Relay, Form A |
| Load Voltage | 60 VDC/VAC |
| Max. Load Current | 60 V/1.0 A (Operating Temperature: -25 ~ +40°C) |
| | 60 V/0.8 A (Operating Temperature: +40 ~ +60°C) |
| | 60 V/0.7 A (Operating Temperature: +60 ~ +75°C) |
| Power-on Time | 5.0 ms |
| Power-off Time | 0.5 ms |
| Digital Output | |
| Output Channels | 4 (Sink) |
| Output Types | Isolated Open Collector |
| Max. Load Current | 700 mA/channel |
| Load Voltage | +5 VDC ~ +50 VDC |
| Power-off Time | 0.5 ms |
| External Power Reversed Protection and Short Circuit Protection | Yes |
| Current Limited Protection | 1.1 A |



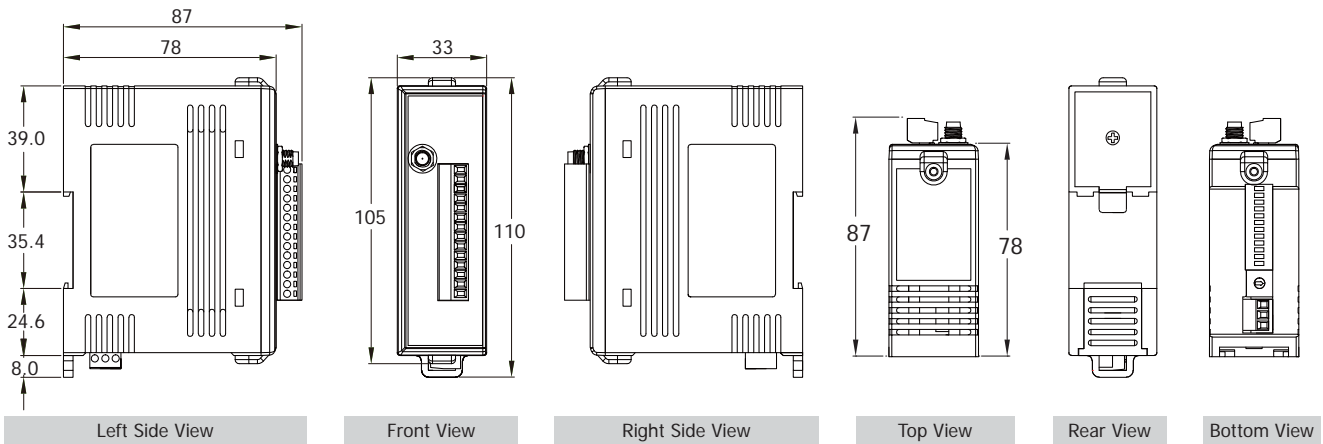
Wiring

| Relay Output | ON State LED ON Readback as 1 | OFF State LED OFF Readback as 0 |
|----------------------|----------------------------------|------------------------------------|
| From A Relay Contact | Relay ON | Relay OFF |
| Digital Output | ON State LED ON Readback as 1 | OFF State LED OFF Readback as 0 |
| Drive Relay | Relay ON | Relay OFF |
| Resistance Load | Relay ON | Relay OFF |

Appearance



Dimensions (Units: mm)



Ordering Information

| | |
|--|---|
| ZT-2042 CR | Wireless 4-channel PhotoMOS Relay Output and 4-channel Open Collector Output Module (RoHS) (Long Range) |
| Important Note: Zigbee Data Acquisition modules need a Zigbee host converter to coordinate the data transmission route. Please remember to order a ZT-2550, ZT-2570 ZigBee host converter when you purchase Zigbee Data Acquisition products. | |

Accessories

| | |
|------------|---|
| MDR-20-24 | 24 Vdc/1.0 A, 24 W Power Supply with DIN-Rail Mounting |
| ZT-2510 CR | ZigBee Repeater (RoHS) |
| ZT-2550 CR | RS-485/RS-232 to High Power Amplifier ZigBee Converter (Host) (RoHS) |
| ZT-2570 CR | Ethernet/RS-485/RS-232 to High Power Amplifier ZigBee Converter (Host) (RoHS) |