



Features

- ISM 2.4 GHz Operating Frequency
- Fully Compliant with 2.4G/ ZigBee Specifications
- Wireless Transmission Range up to 700 m (Default)
- Adjustable RF Transmission Output Power
- External DIP and Rotary Switches for easy Configuration
- GUI Configuration Software (Windows Version)
- Supports AES-128 Encryption for the Wireless Communication (Passive)
- Supports ZigBee Repeater Function
- 14 Digital Output Channels for Open Collector
- Short Circuit Protection
- Surge and ESD Protection
- Configurable Power-on Value and Safe Value Settings
- DIN-Rail Mounting



Introduction

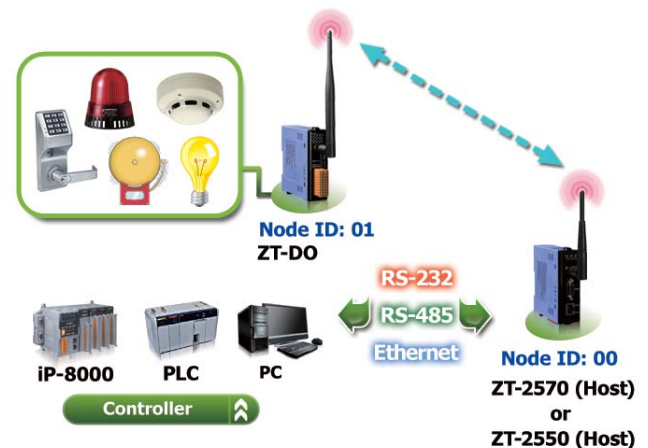
The ZT-2043 offers 14 sink type digital output channels with short circuit protection. All channels feature photo-couple isolation. The ZT-2043 includes 14 LED indicators to display the DO channel status. 4 kV ESD protection and 3750 Vdc intra-module isolation are the standard. Users can easily configure 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) |
| Antenna | 2.4 GHz - 5 dBi Omni-directional Antenna |
| Transmission Range (LoS) | 700 m (Typical) |
| Certification | CE/FCC, FCC ID |
| Max. Slaves in a ZigBee Network | 255 |
| Protocols | Supports DCON and Modbus RTU Protocols |
| Dual Watchdog | Yes, Module (1.6 Seconds), Communication (Programmable) |
| LED Indicators | |
| Power | 1 LED, Red |
| ZigBee Communication | 1 LED, Green |
| Digital Output | 14 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 | |
| Input Voltage Range | +10 VDC ~ +30 VDC |
| Power Consumption | 0.84 W Max. |
| Mechanical | |
| Flammability | Fire Retardant Materials (UL 94V-0 Level) |
| Dimensions (L × W × H) | 87 mm × 33 mm × 110 mm |
| Installation | DIN-Rail |
| Environment | |
| Operating Temperature | -25 ~ +75°C |
| Storage Temperature | -30 ~ +80°C |
| Relative Humidity | 10 ~ 90% RH, Non-condensing |

Applications

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



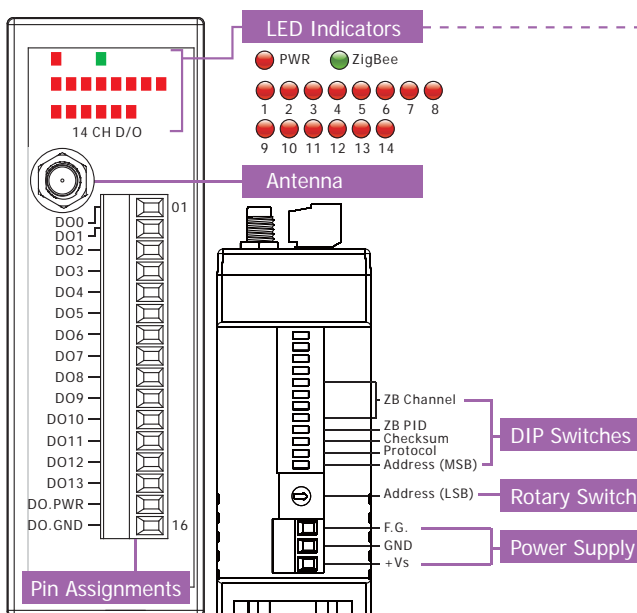
I/O Specifications

| Digital Output | |
|---|-------------------------|
| Output Channels | 14 (Sink) |
| Output Types | Isolated Open Collector |
| Max. Load Current | 700 mA/channel |
| Load Voltage | +5 Vdc ~ +50 Vdc |
| External Power Reversed Protection and Short Circuit Protection | Yes |
| Current Limited Protection | 1.1 A |
| Power-on Value | Yes |
| Safe Value | Yes |

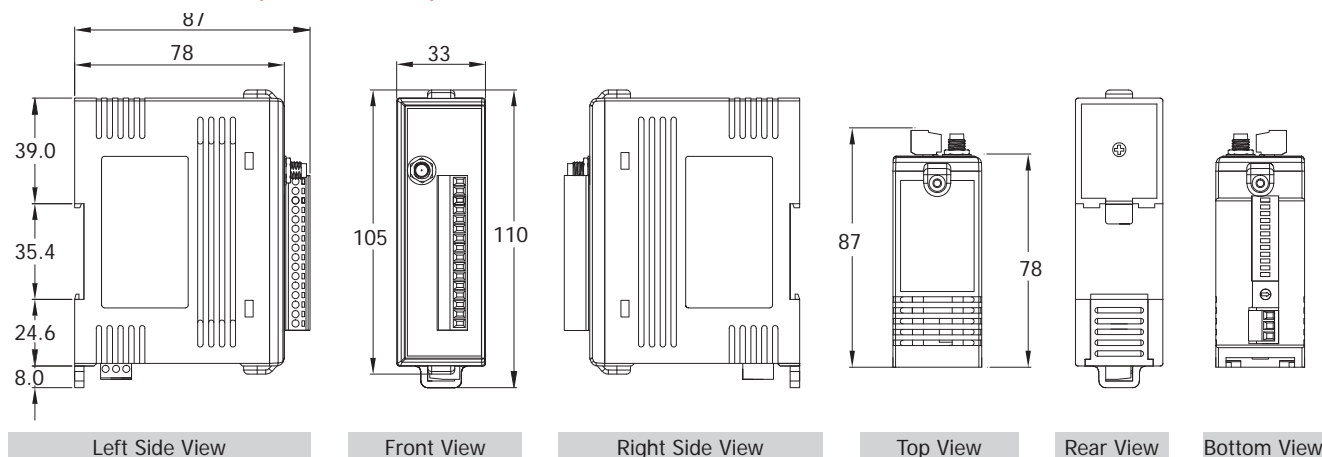
Wiring

| 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-2043 CR | Wireless 14-channel Isolated Digital Output Module (ZigBee Router) (RoHS) |
| 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, and ZT-USBC 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 ZigBee Converter (Host) |
| ZT-2570 CR | Ethernet/RS-485/RS-232 to ZigBee Converter (Host) (RoHS) |
| External Antenna | 2.4 GHz External Antenna, RP SMA Male (Plug) |
| Extension Cable | 3S00x-1, RG58A/U × Meter Long RP-SMA (male) to RP-SMA (female) |