



## ZT-2060

Wireless 6-channel Isolated Digital Input and  
4-channel Relay Output Module

## 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 (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
- 6 Digital Input Channels and 4 Relay Output Channels
- All Channels Can Be Used As 16-bit Counters
- ESD and Surge Protection
- Configurable Power-on Value and Safe Value Settings
- DIN-Rail Mountable



## Introduction

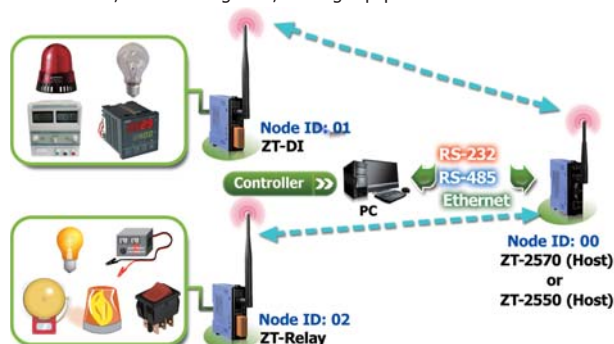
The ZT-2060 offers 4 Form A power relay output channels and 6 digital input channels, each of which features photocouple isolation. In addition, you can choose sink-type or source-type input via wire connections. Digital input channels are able to be used as 16-bit counters and Relay channels are options for configuring power-on and safe digital output values. The ZT-2060 has 10 LED indicators to display the channel status, and has 4 kV ESD protection and 3000 Vdc intra-module isolation. 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 Certificated) (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 Input and Output	6 Green LEDs for Digital Input 4 Red LEDs for Relay Output
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	1.4 W Max.
Mechanical	
Flammability	Fire Retardant Materials (UL 94V-0 Level)
Dimensions (L × W × H)	94 mm x 33 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

## Applications

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



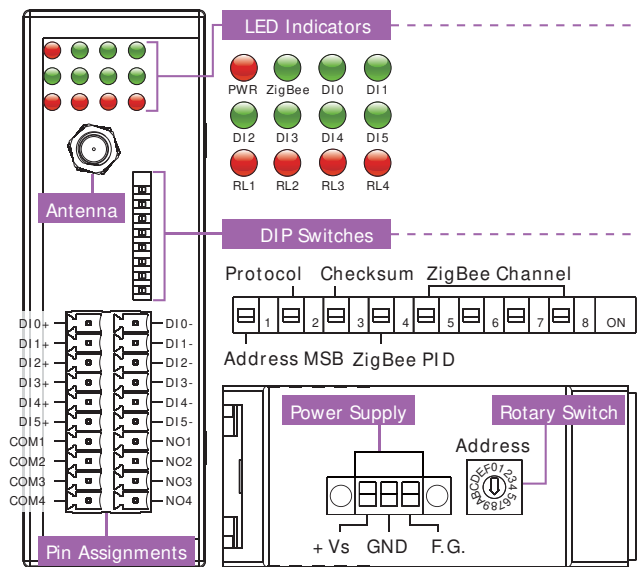
## I / O Specifications

Digital Input		
Input Channels		6
Types		Wet Contact (Sink/Source)
On Voltage Level		+3.5 VDC ~ +30 VDC
Off Voltage Leve		+1 VDC Max.
Input Impedance		3 kΩ, 0.33 W
Counter	Channels	6
	Max. Count	16-bit (65535)
	Max. Input Frequency	100 Hz
	Min. Pulse Width	5 ms
Relay Output		
Output Channels		4
Types		Power Relay, Form A (SPST N.O)
Operating Voltage Range		5 A (250 VAC or 30 VDC)
Max. Load Current		270 VAC/125 VDC
Operate Time		10 ms
Release Time		5 ms
Mechanical Endurance		2 x 10 <sup>7</sup> ops at no load (300 ops/minute)
Electrical Endurance		10 <sup>5</sup> ops
Surge Strength		3000 Vdc
Power-on Value		Yes, Programmable
Safe Value		Yes, Programmable

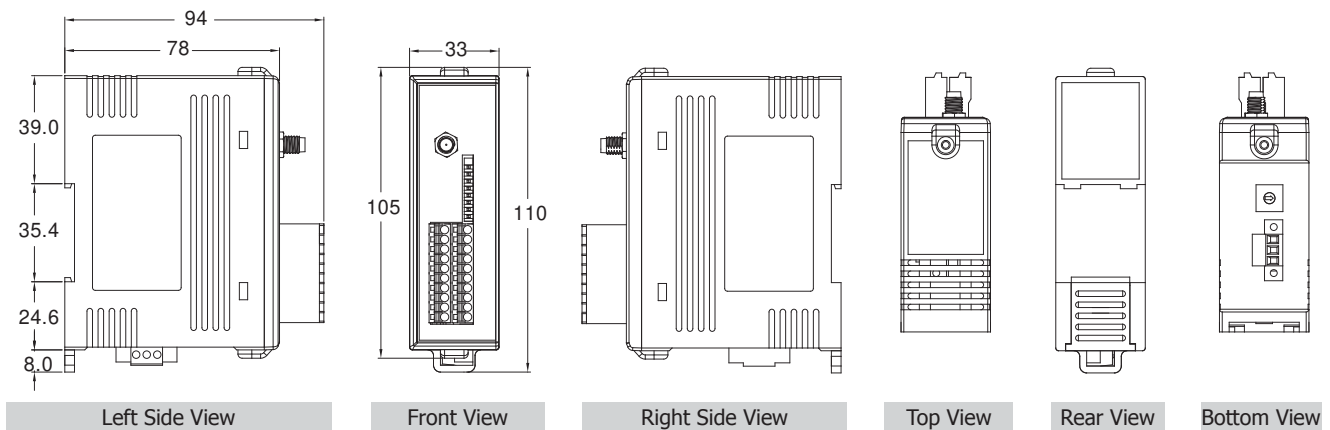
## Wiring

Digital Input/Counter	ON State Readback as 1 +3.5 ~ +30 VDC	OFF State Readback as 0 OPEN or <1 VDC
Sink		
Source		
Power Relay	ON State Readback as 1	OFF State Readback as 0
Relay Output		

## Appearance



## Dimensions (Units: mm)



## Ordering Information

ZT-2060 CR	Wireless 6-channel Isolated Digital Input and 4-channel Relay Output Module (ZigBee Router) (RoHS)
<b>Important Note:</b> ZigBee Data Acquisition modules need a ZigBee host converter to coordinate the data transmission route. Please remember to order a ZT-2550 or 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 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	3500x-1, RG58A/U × Meter Long RP-SMA (male) to RP-SMA (female)