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ZT-2060

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

Features

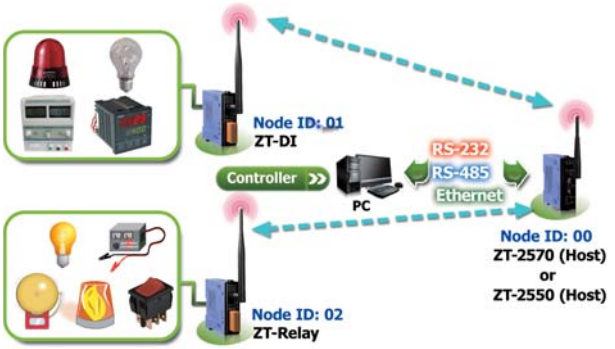
- ISM 2.4 GHz Operating Frequency
- Fully Compliant with 2.4G IEEE 802.15.4 / ZigBee Specifications
- Wireless Transmission Range up to 700 m (Default)
- Adjustable RF Transmission Output Power
- External DIP and Rotary Switches for easy Configuration
- GUI Configuration Software (Windows Version)
- 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.

Applications

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



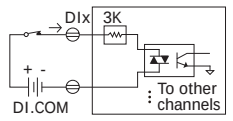
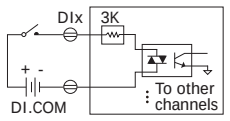
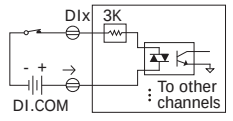
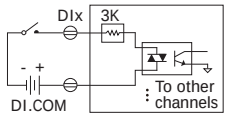
System Specifications

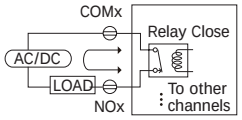
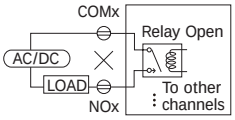
Communication Interface	
Wireless Standards	ZigBee 2007 Pro
Transmission Power	11 dBm (FCC Certificated) (Max 19 dBm)
Antenna	2.4 GHz - 5 dBi Omni-directional Antenna
Transmission Range (LoS)	700 m (Typical)
Certification	CE/FCC, FCC ID
Max. Slaves in a ZigBee Network	255
Protocols	Supports DCON and 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

I/O Specifications

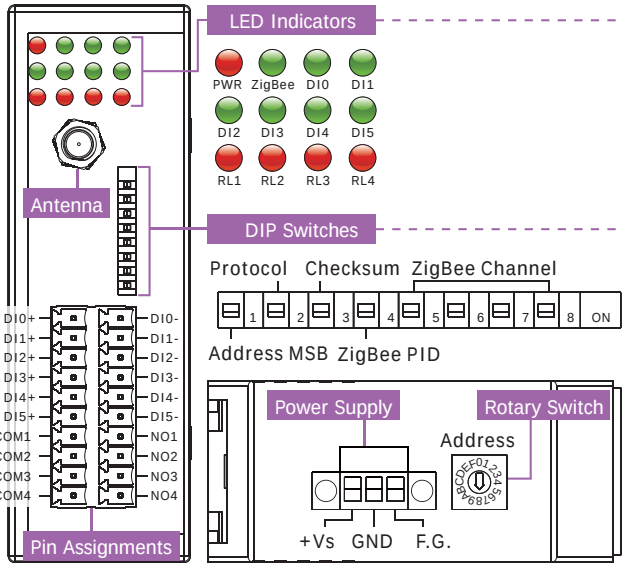
Digital Input		
Input Channels		6
Types		Wet Contact (Sink/Source)
On Voltage Level		+3.5 VDC ~ +30 VDC
Off Voltage Leve		+1 VDC Max.
Input Impedance		3 kΩ, 0.33 W
Counter	Channels	6
	Max. Count	16-bit (65535)
	Max. Input Frequency	100 Hz
	Min. Pulse Width	5 ms
Relay Output		
Output Channels		4
Types		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		2×10^7 ops at no load (300 ops/minute)
Electrical Endurance		10^5 ops
Surge Strength		3000 VDC
Power-on Value		Yes, Programmable
Safe Value		Yes, Programmable

Wiring

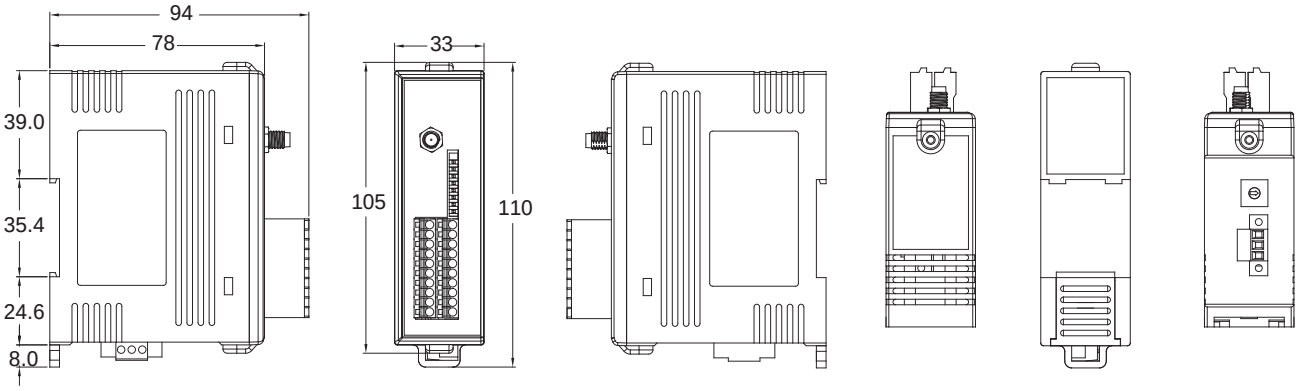
Digital Input/ Counter	ON State Readback as 1	OFF State Readback as 0
Sink	+3.5 ~ +30 VDC	OPEN or <1 VDC
		
Source	+3.5 ~ +30 VDC	OPEN or <1 VDC
		

Power Relay	ON State Readback as 1	OFF State Readback as 0
Relay Output		

Appearance



Dimensions (Units: mm)



Left Side View | Front View | Right Side View | Top View | Rear View | Bottom View

Ordering Information

ZT-2060 CR	Wireless 6-channel Isolated Digital Input and 4-channel Relay 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 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	3S00x-1, RG58A/U × Meter Long RP-SMA (male) to RP-SMA (female)