



ZT-2052

Wireless 8-channel Isolated Digital Input Module with 16-bit Counters

Introduction

The ZT-2052 offers 8 digital input channels, each of which features photocouple isolation. In addition, you can choose either sink-type or source-type input via wire connections. All channels are able to be used as 16-bit counters. The ZT-2052 has 8 LED indicators to display the channel status and also includes 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 , IEEE 802.15.4
Transmission Power	11 dBm (FCC Certificated) (Max 19 dBm)
Antenna	2.4 GHz - 5 dBi Omni-directional Antenna
Transmission Range (LoS)	700 m (Typical)
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	8 LEDs, Red
Isolation	
Intra-module Isolated, Field-to-Logic	3000 Vrms
Power	
Input Voltage Range	+10 VDC ~ +30 VDC
Power Consumption	1 W Max.
Mechanical	
Flammability	Fire Retardant Materials (UL 94V-0 Level)
Dimensions (L x W x H)	87 mm x 33 mm x 110 mm
Installation	DIN-Rail
Environment	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-30 ~ +80°C
Humidity	10 ~ 90% RH, Non-condensing

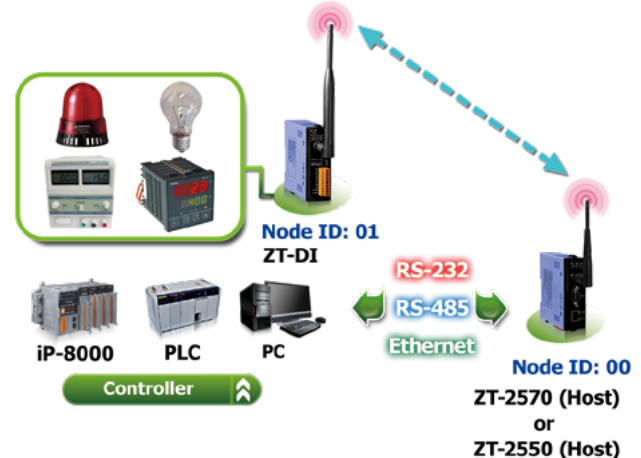
Features

- ISM 2.4 GHz Operating Frequency
- Fully Compliant with 2.4G IEEE 802.15.4 / ZigBee Specifications
- Wireless Transmission Range up to 700 m (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
- 8 Wet Contact Digital Input Channels
- Supports 16-bit Counters for Digital Input Channels
- Surge and ESD Protection
- DIN-Rail Mountable



Applications

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



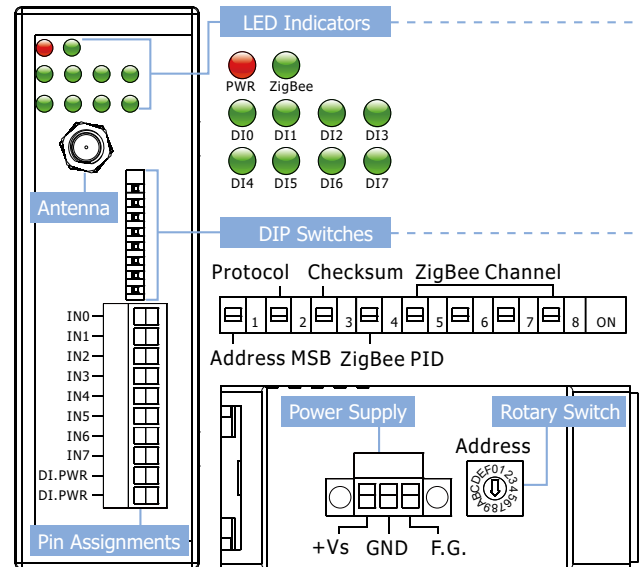
I/O Specifications

Digital Input/Counter		
Channel	8	
Types	Wet Contact (Slink/Source)	
ON Voltage Level	+3.5 VDC ~ +30 VDC	
OFF Voltage Level	+1 VDC Max.	
Counters	Max. Count	16-bit (65535)
	Max. Input Frequency	100 Hz
	Min. Pulse Width	5 ms
Input Impedance	3 kΩ, 0.33 W	
ESD Protection	±4 kV contact for each channel	

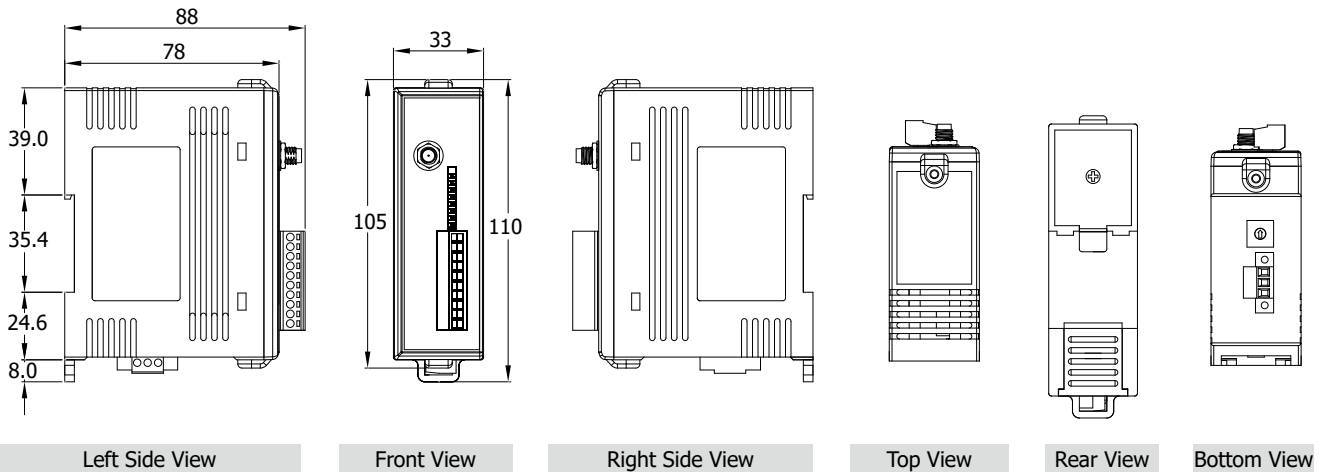
Wiring

Input Type	ON State Readback as 1	OFF State Readback as 0
Wet Contact (Sink)	Voltage > 3.5V 	Voltage < 1V
	Voltage > 3.5V 	Voltage < 1V

Appearance



Dimensions (Units: mm)



Ordering Information

ZT-2052 CR	Wireless 8-channel Isolated Digital Input Module with 16-bit Counters (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 CR	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)