



Introduction

The ZB-2053-T offers 14-ch for digital input which cover dry contact and wet contact as well. Its effective distance for dry contact is up to 500 meters. All of its channels are not only with isolation but also able to be used as counter. ZB-2053-T has 14 LED indicators for channel status as well as qualification for 4 kV ESD protection and 3750 V_{rms} intra-module isolation. Users can be easy to configure the module address, Protocol, Checksum, ZB-PID and ZB-ch by rotary and DIP switch.

Features

- ISM 2.4 GHz Operating Frequency
- Fully Compliant 2.4 G IEEE802.15.4/ZigBee Specifications
- Wireless Transmission Range up to 700 m (ZB-2550P/ZB-2570P)
- Wireless Transmission Range up to 100 m (ZB-2550/ZB-2570)
- GUI Configuration Software (Windows Version)
- 14 Digital Input for Dry Contact and Wet Contact
- Supports 16-bit Counters for Digital Inputs
- Surge and ESD Protection
- DIN-Rail Mount



Applications

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

I/O Specifications

Digital Input	
Input Channel	14
Dry Contact (Sink)	On Voltage Level: Close to GND
	Off Voltage Level: Open
	Effective Distance for Dry Contact: 500 m max.
Wet Contact (Sink/Source)	On Voltage Level: +3.5 V _{oc} ~ +30 V _{oc}
	Off Voltage Level: +1 V _{oc} max.
Input Impedance	3 kΩ, 0.33 W
Counter	Channels: 14
	Max. Counts: 16-bit (65535)
	Max. Input Frequency: 100 Hz
	Min. Pulse Width: 5 ms
Intra-module Isolated, Field to Logic	3750 V _{oc}
ESD Protection	+/-4 kV (Contact for each channel)

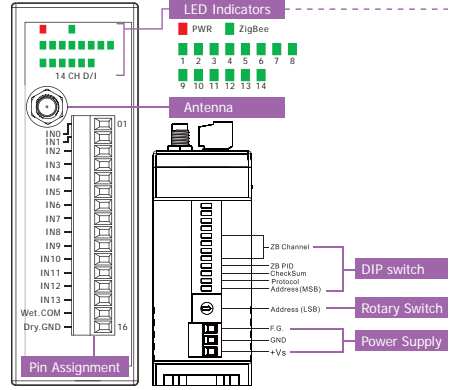
System Specifications

Communication Interface	
Wireless	ZigBee, IEEE 802.15.4 Standard
Antenna	2.4 GHz-3 dBi Omni-Directional antenna
Protocols	Supports DCON and Modbus RTU Protocols
Hot Swap	By Rotary and DIP switch
LED Indicators	
Power	1 LED, red
ZigBee Communication	1 LED, green
Digital Input	14 LEDs, green
Power	
Power Consumption	0.84 W max.
Mechanical	
Flammability	Fire Retardant Materials (UL94-V0 Level)
Dimensions (W x L x H)	33 mm x 87 mm x 107 mm
Installation	DIN-Rail
Environment	
Operating Temperature	-25 °C ~ +75 °C
Storage Temperature	-30 °C ~ +80 °C
Humidity	10 ~ 90% RH, non-condensing

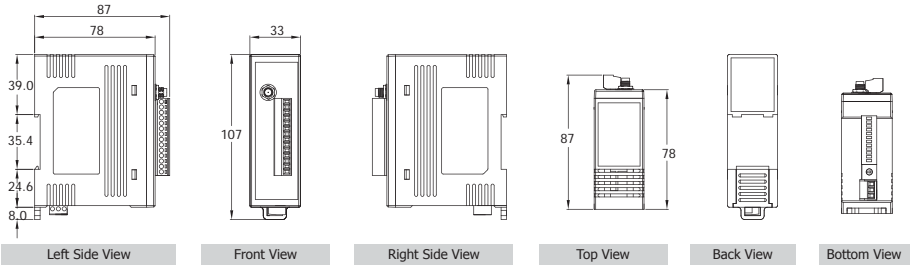
Wiring

Input Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
	Relay ON	Relay OFF
Dry Contact		
Wet Contact (Source)	Voltage > 3.5V	Voltage < 1V
Wet Contact (Sink)	Open Collector ON	Open Collector OFF

Appearance



Dimensions (Unit: mm)



Ordering Information

ZB-2053-T CR	Wireless 14-ch Isolated Digital Input Module (RoHS)
Important Note: The ZigBee AIO modules need a ZB-2570 to coordinate the data transmission route, please remember to also order a ZB-2570 when you purchase the ZB DIO products.	

Accessories

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