

ZT-2053-IOG

ZigBee I/O Group (Pair-connection) Module with the 14-channel Isolated Digital Input

Features

- ISM 2.4 GHz Operating Frequency
- Fully Compliant with 2.4G IEEE 802.15.4/ZigBee Specifications
- Supports AES-128 Encryption for the Wireless Communication
- Wireless Transmission Range up to 700 m (Default)
- Adjustable RF Transmission Output Power
- Physical Pair-connection Channels of 14 Digital Input
- 280 Logical Pair-connection Channels Supported
- Configurable I/O Pairing Relationship
- Surge and ESD Protection
- DIN-Rail Mountable

Introduction

ZT-20xx-IOG series (referred to as ZT-IOG) is a series of ZigBee wireless communication module with Digital Input and Digital Output channels. The “IOG” in the ZT-IOG is the abbreviation for the I/O Group and means the multi-to-multi Pair-connection I/O modules.
The ZT-2053-IOG module is one of the ZT-20xx-IOG series that provides 14 digital input channels. User can easily configure it as either a ZigBee Coordinator or a ZigBee Router via the external switches.
The ZigBee Coordinator will serve as a message processing and distribution center. In other words, as long as any DI of any ZT-IOG module changes its channel state, it will immediately trigger an event and upload it to the ZigBee Coordinator for I/O updating logic calculations to determine the DO output states of the ZT-IOG system. Then, the ZigBee Coordinator will broadcast a message periodically to all ZT-IOG ZigBee Router modules for synchronizing all DO channel states to achieve the multi-to-multi I/O Pair-connection function.

System Specifications

Communication Interface	
Wireless Standards	ZigBee 2007 Pro
Transmission Power	10 dBm to 19 dBm (EIRP) (Adjustable via Utility)
Antenna	2.4 GHz - 5 dBi Omni-directional Antenna
Transmission Range (LoS)	300 m to 700 m (Depending on the RF power setting)
Max. Slaves in a ZigBee Network	255
LED Indicators	
Power	1 LED, Red
ZigBee Communication	1 LED, Green
Digital Input	14 LEDs, Green
Isolation	
Intra-module Isolated, Field-to-Logic	3750 Vrms
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	0.72 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	
OperatingTemperature	-25 ~ +75°C
Storage Temperature	-30 ~ +80°C
Humidity	10 ~ 90% RH, Non-condensing

Applications

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

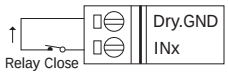
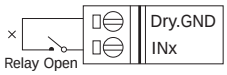
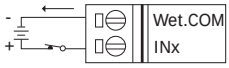
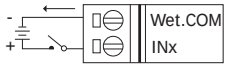
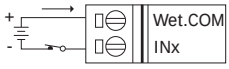
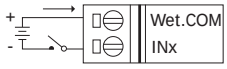


I/O Specifications

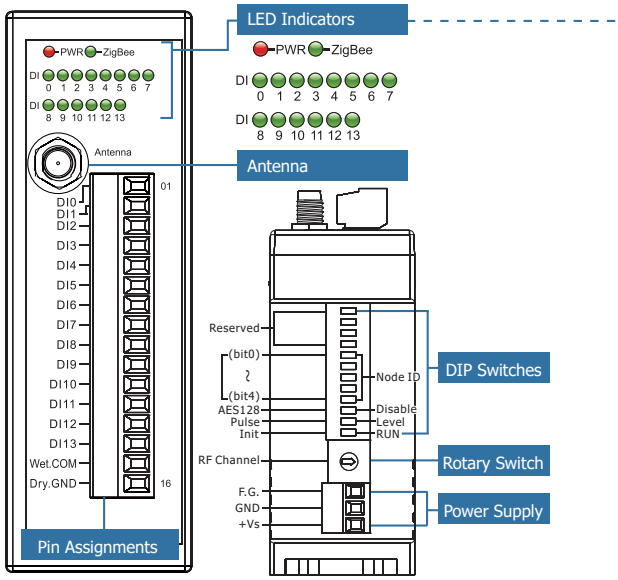
Digital Input	
Input Channels	14
Dry Contact (Sink)	On Voltage Level: Close to GND
	Off Voltage Level: Open
	Effective Distance for Dry Contact: 500 m Max.
Wet Contact (Sink/Source)	On Voltage Level: +3.5 VDC ~ +30 VDC
	Off Voltage Level: +1 VDC Max.
Input Impedance	3 kΩ, 0.33 W

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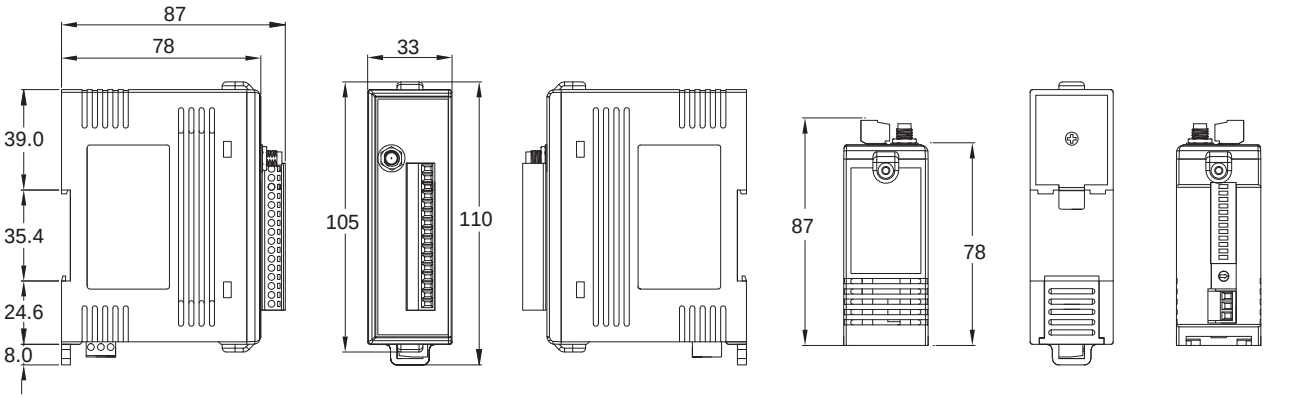
Wiring

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

Appearance



Dimensions (Units: mm)



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

Ordering Information

ZT-2053-IOG CR	ZigBee I/O Group (Pair-connection) Module with the 14-channel Isolated Digital Input (Full-function) (RoHS)
Important Note: If there is any requirement to do the advanced configuration, please remember to order at least one ZT-USBC or ZT-2570 ZigBee converter.	

Accessories

ZT-USBC CR	USB to ZigBee Converter (ZigBee Full-function) (RoHS)
ZT-2510 CR	ZigBee Repeater (RoHS)
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)

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