

ZT-2055-IOP

ZigBee I/O Pair-connection Module with the 8-channel Isolated Digital Input and 8-channel Digital Output

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
- 8 Channels Pair-connection of the Digital Input and Digital Output
- DO Safe Value setting for Wireless Disconnection Monitoring
- Configurable I/O Pairing Number
- Surge and ESD Protection
- Supports AES-128 Encryption for the Wireless Communication
- DIN-Rail Mountable

Introduction

The ZT-2055-IOP module is a ZigBee coordinator that offers 8 isolated channels for digital input and 8 isolated channels for digital output. An embedded I/O channel binding function means that there is no need to use an external controller. The status of each channel is bound to a remote channel of the ZT-2055. The ZT-2055-IOP continually updates the status of the DO channel of the remote ZT-2055 based on its own DI channels. It also reads the status of the DI channel of the remote ZT-2055 to synchronize its own DO channels. The ZT-2055-IOP also provides external DIP switches for easy configuration, which can be used to synchronize the digital signals in any difficult wiring environment.

System Specifications

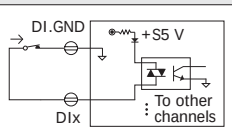
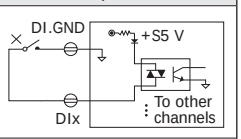
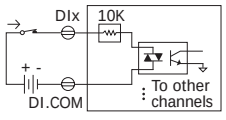
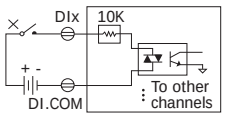
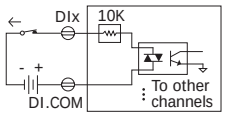
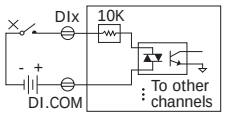
Communication Interface	
Wireless Standards	ZigBee 2007 Pro
Transmission Power	10 dBm to 19 dBm (EIRP) (Adjustable via Utility)
Antenna	2.4 GHz - 5 dBi Omni-directional Antenna
Transmission Range (LoS)	300 m to 700 m (Depending on the RF power setting)
Max. Slaves in a ZigBee Network	255
LED Indicators	
Power	1 LED, Red
ZigBee Communication	1 LED, Green
igital Input and Output	8 Green LEDs for Digital Input 8 Red LEDs for Digital Output
Isolation	
Intra-module Isolated, Field-to-Logic	2500 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	2.5 W Max.
Mechanical	
Flammability	Fire Retardant Materials (UL 94V-0 Level)
Dimensions (L × W × H)	96 mm x 33 mm x 110 mm
Installation	DIN-Rail
Environment	
OperatingTemperature	-25 ~ +75°C
Storage Temperature	-30 ~ +80°C
Humidity	10 ~ 90% RH, Non-condensing

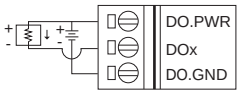
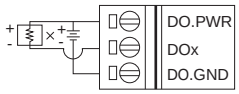
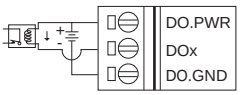
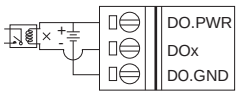
I/O Specifications

Digital Input		
Input Channels		8
Input Types	Dry Contact	Source
	Wet Contact	Sink/Source
Wet Contact	On Voltage Level	+10 VDC ~ +50 VDC
	Off Voltage Level	+4 VDC Max.
DryContact	On Voltage Level	Close to GND
	Off Voltage Level	Open
Input Impedance		10 KΩ
Overvoltage Protection		±70 VDC
Digital Output		
Output Channels		8
Output Types		Open Collector
Sink/Source(NPN/PNP)		Sink
Load Voltage		+3.5 ~ 50 VDC
Max. Load Current		650 mA/Channel
Overvoltage Protection		60 VDC
Overload Protection		1.4 A (with short-circuit protection)

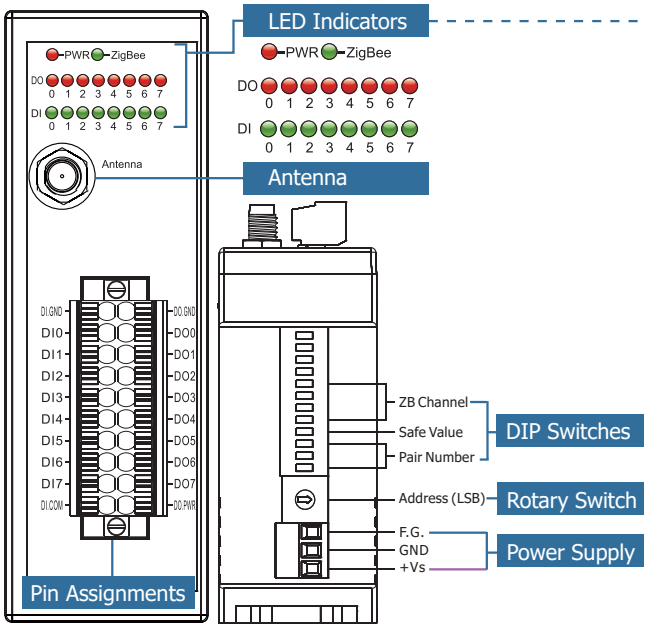
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Wiring

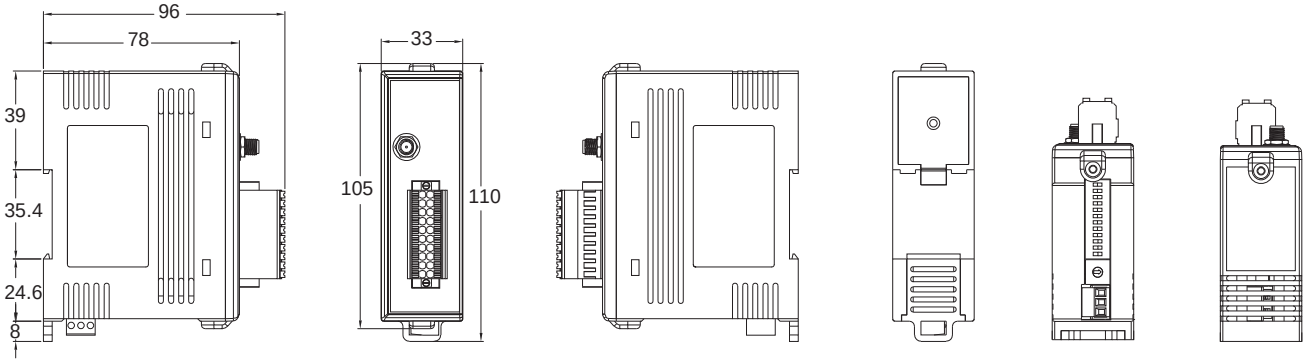
Input Type	ON State Readback as 1	OFF State Readback as 0
Dry Contact	Close to GND	Open
		
Wet Contact (Sink)	+10 ~ +50 VDC	+4 VDC Max.
		
Wet Contact (Source)	+10 ~ +50 VDC	+4 VDC Max.
		

Output Type	ON State Readback as 1	OFF State Readback as 0
Digital Output (Resistance Load)		
Digital Output (Inductive Load)		

Appearance



Dimensions (Units: mm)



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

Ordering Information

ZT-2055-IOP CR	ZigBee Pair-connection to the 8-ch Isolated Digital Input and 8-ch Digital Output Module (Host, ZigBee Coordinator) (RoHS)
Important Note: ZigBee Pair-connection module is a ZigBee host to coordinate the ZigBee I/O module. Please order at least one ZT-2000 digital series module to work for ZigBee I/O pairing.	

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)
ZT-2550 CR	RS-232/RS-485 to ZigBee Converter (ZigBee Coordinator) (RoHS)
Important Note: The default pairing setting of ZT-2055-IOP is paired with the ZT-2055. If there is any pairing requirement with other ZigBee I/O modules, a ZigBee converter is required for doing the software configuration.	

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