



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.

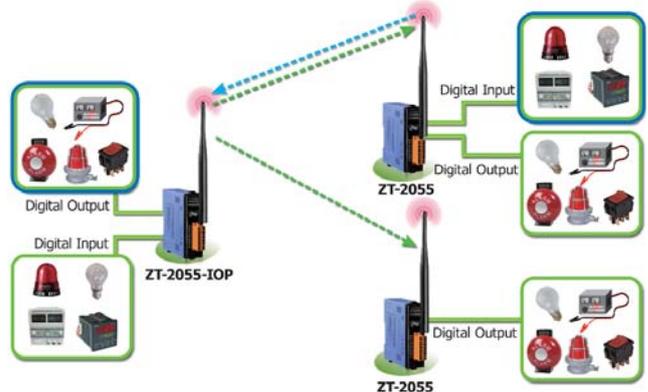
The status of each channel is bound to a remote channel of the ZT-2055. The ZT-2055-IOP continually updates the status of the DO channel of the remote ZT-2055 based on its own DI channels. It also reads the status of the DI channel of the remote ZT-2055 to synchronize its own DO channels. The ZT-2055-IOP 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	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
LED Indicators	
Power	1 LED, Red
ZigBee Communication	1 LED, Green
Digital 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	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-30 ~ +80°C
Relative Humidity	10 ~ 90% RH, Non-condensing

Applications

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



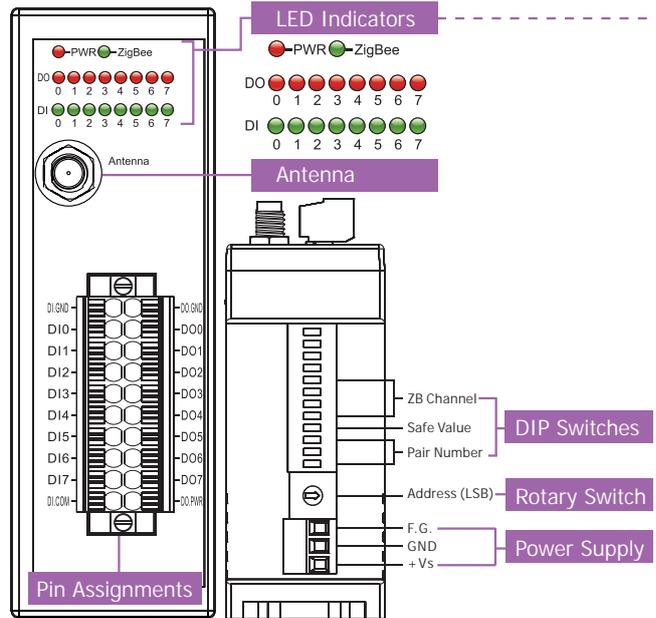
I/O Specifications

Digital Input/ Counter		
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)

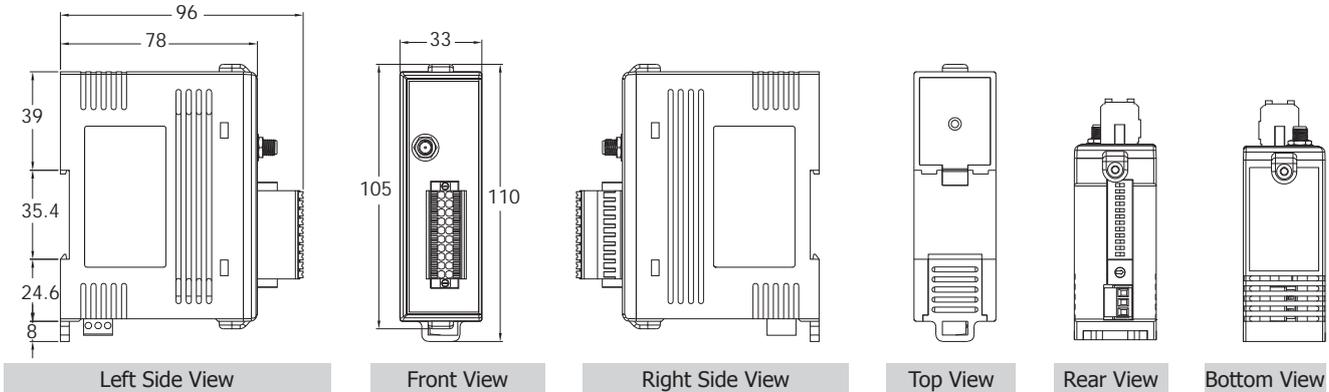
Wiring

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)



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)
ZT-2042 CR	ZigBee 4-ch PhotoMOS Relay Output and 4-ch Open Collector Output Module (Slave, ZigBee Router) (RoHS)
ZT-2043 CR	ZigBee 14-ch Isolated Digital Output Module (Slave, ZigBee Router) (RoHS)
ZT-2055 CR	ZigBee 8-channel Isolated Digital Input and 8-channel Isolated Digital Output Module (Slave, ZigBee Router) (RoHS)
ZT-2060 CR	ZigBee 6-ch Isolated Digital Input and 4-ch Relay Output Module (Slave, ZigBee Router) (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-2570 CR	Ethernet/RS-485/RS-232 to ZigBee Converter (Host, ZigBee Coordinator) (RoHS)
ZT-2550 CR	RS-485/RS-232 to ZigBee Converter (Host)
ZT-2510 CR	ZigBee Repeater (Slave, ZigBee Router) (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.