



ZT-2052-IOP

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

Introduction

The ZT-2052-IOP module acts as a ZigBee coordinator that provides 8-channel digital input pair-connection function with module of ZT-2042 (4-ch PhotoMOS Relay Output and 4-ch Open Collector). An embedded I/O channel binding function means that there is no need to use an external controller.

The status of each ZT-2052-IOP channel triggers the corresponding remote digital output channels on the ZT-2042 module. The ZT-2052-IOP continually transmits updates on the status of the digital input channels to the remote ZT-2042 to ensure that the digital output channels are synchronized.

The ZT-2052-IOP also provides external DIP and Rotary switches for easy configuration, which can be used to synchronize the digital signals in any environment where wiring is difficult.

System Specifications

Model	ZT-2052-IOP
Communication Interface	
Wireless Standards	ZigBee 2007 Pro
Transmission Power	11 dBm (FCC Certified)
2.4 GHz Antenna	5 dBi Omni directional
Transmission Range (LoS)	700 m (Typical)
Max. Slaves in a ZigBee Network	255
Hot Swap	Rotary and DIP switch
LED Indicators	
Power / Debug	1 Red LED, ZigBee Device Power Indicator
ZigBee Communication	1 Green LED, ZigBee Communication Indicator
Digital Input and Output	8 Green LED, Digital Input Channel Indicators
Power	
Input Voltage Range	+10 VDC ~ +30 VDC
Power Consumption	1 W (Max.)
Mechanical	
Flammability	Fire Retardant Materials (UL94-V0 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
Relative Humidity	10 ~ 90% RH, Non-condensing

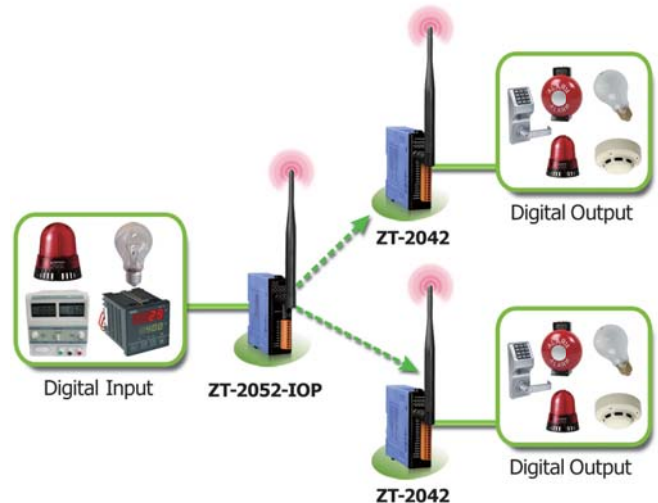
Features

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



Applications

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



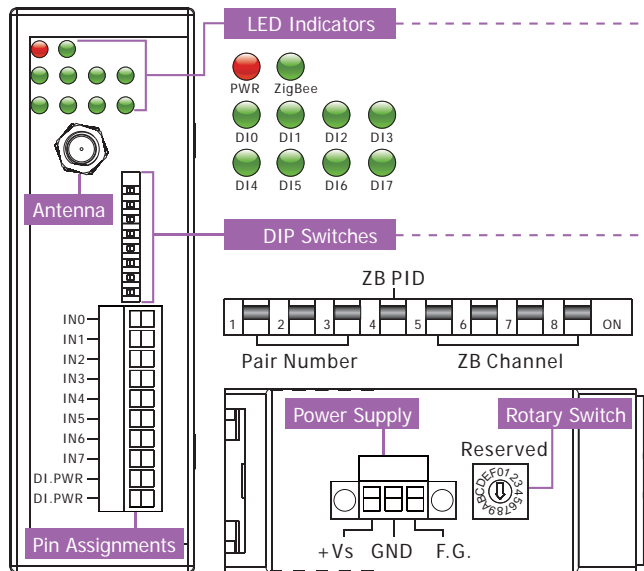
I/O Specifications

Model	ZT-2052-IOP	
Digital Input		
Input Channels	8	
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	
Intra-module Isolation, Field to Logic	3750 V _{rms}	
ESD Protection	+/-4 kV contact for each channel	

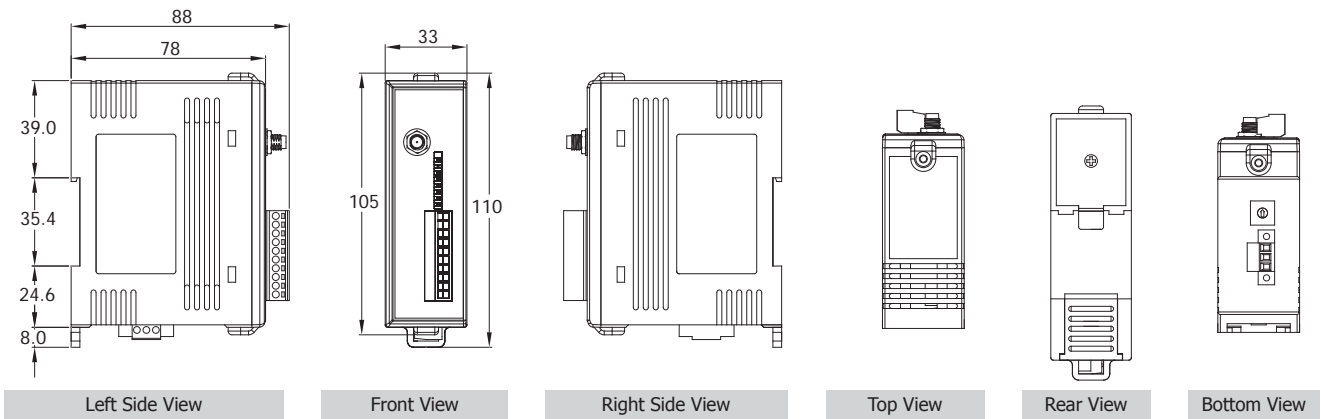
Wiring

Input Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
TTL/ CMOS Logic	Voltage > 3.5V 	Voltage < 1V
	Relay ON 	Relay OFF
Open Collector	Open Collector ON 	Open Collector OFF

Appearance



Dimensions (Units: mm)



Ordering Information

ZT-2052-IOP CR	ZigBee Pair-connection to the 8-ch Isolated Digital Input 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-2510 CR	ZigBee Repeater (RoHS)
ZT-USBC CR	USB to ZigBee Converter (Coordinator)
ZT-2550 CR	RS-485/RS-232 to ZigBee Converter (Coordinator)
ZT-2570 CR	Ethernet/RS-485/RS-232 to ZigBee Converter (Coordinator)

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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ZigBee Products