



### 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
- Surge and ESD Protection
- Supports AES-128 Encryption for the Wireless Communication
- DIN-Rail Mountable



### 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.

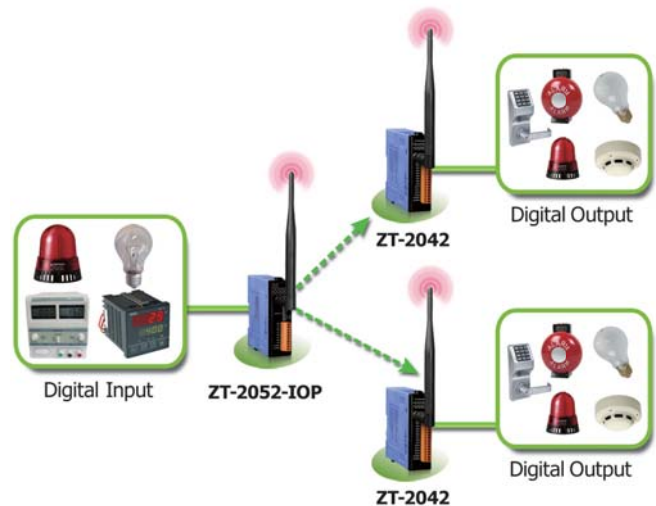
The ZT-2052-IOP also provides external DIP and Rotary switches for easy configuration, which can be used to synchronize the digital signals in any environment where wiring is difficult.

### System Specifications

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 / 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 (UL 94V-0 Level)
Dimensions (L x W x H)	88 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.



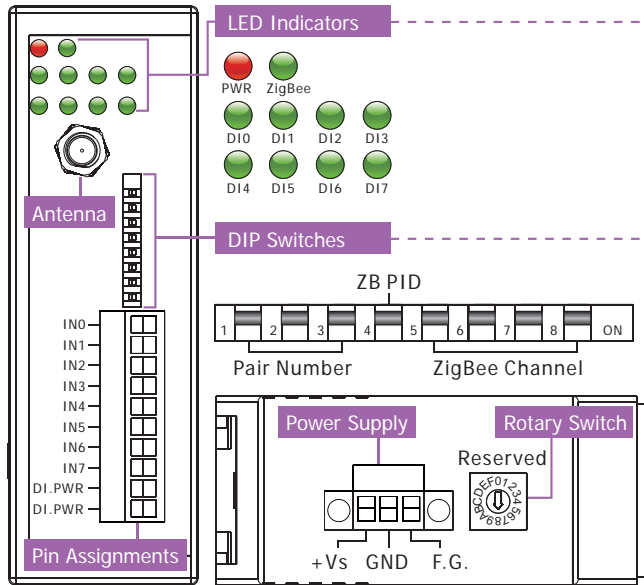
### I/O Specifications

Digital Input		
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 Isolated, Field-to-Logic	3000 Vdc	
ESD Protection	±4 kV contact for each channel	

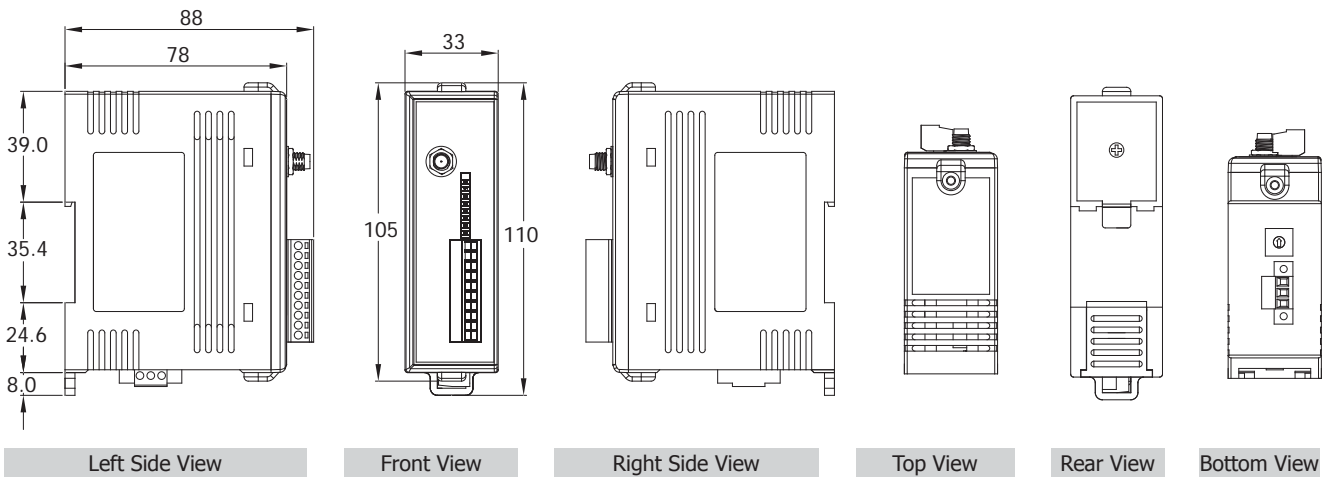
## Wiring

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

## 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-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-2052-IOP is paired with the ZT-2042. If there is any pairing requirement with other ZigBee I/O modules, a ZigBee converter is required for doing the software configuration.