



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 6 Digital Input and 4 Relay Output
- 280 Logical Pair-connection Channels Supported
- Configurable I/O Pairing Relationship
- DO Safe Value Setting for Wireless Disconnection Monitoring
- 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-2060-IOG module is one of the ZT-20xx-IOG series that provides both 6 digital input channels and 4 relay output 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.

Applications



System Specifications

Communication Interface	
Wireless Standards	ZigBee 2007 Pro
Transmission Power	11 dBm (Default, FCC Certified); 19 dBm (Max.)
2.4 GHz Antenna	5 dBi Omni directional
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	6 Green LEDs for Digital Input 4 Red LEDs for Relay 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 Line
Power	
Input Voltage Range	+10 VDC ~ +30 VDC
Power Consumption	1.4 W Max.
Mechanical	
Flammability	Fire Retardant Materials (UL94-V0 Level)
Dimensions (L x W x H)	94 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

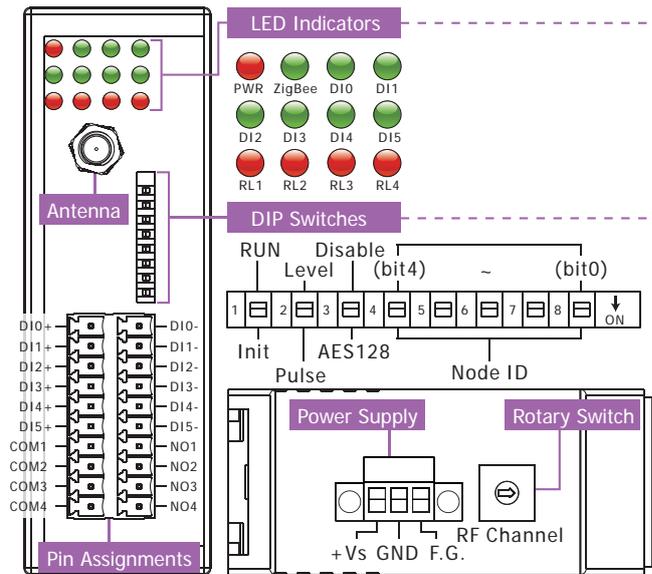
I/O Specifications

Digital Input		
Input Channels	6	
Input Types	Isolated, Wet Contact (Sink/Source)	
Input Level	On Voltage Level	+3.5 Vdc ~ +30 VDC
	Off Voltage Level	+1 Vdc Max.
Input Impedance	3 kΩ, 0.33 W	
Relay Output		
Output Channels	4	
Output Types	Power Relay, Form A	
Contact Rating	5 A @ (250 VAC/30 Vdc)	
Max. Contact Voltage	270 VAC/125 Vdc	
Release Time	5 ms max. at Rated Voltage	
Endurance	Electrical	Resistive Load: 100,000 ops. min. (10 ops/minute)
	Mechanical	At No Load: 20,000,000 ops. min. (300 ops/minute)
Insulation Resistance	Min. 1000M Ω at 500 Vdc	
Surge Strength	5,080 V (1.2 / 50us)	

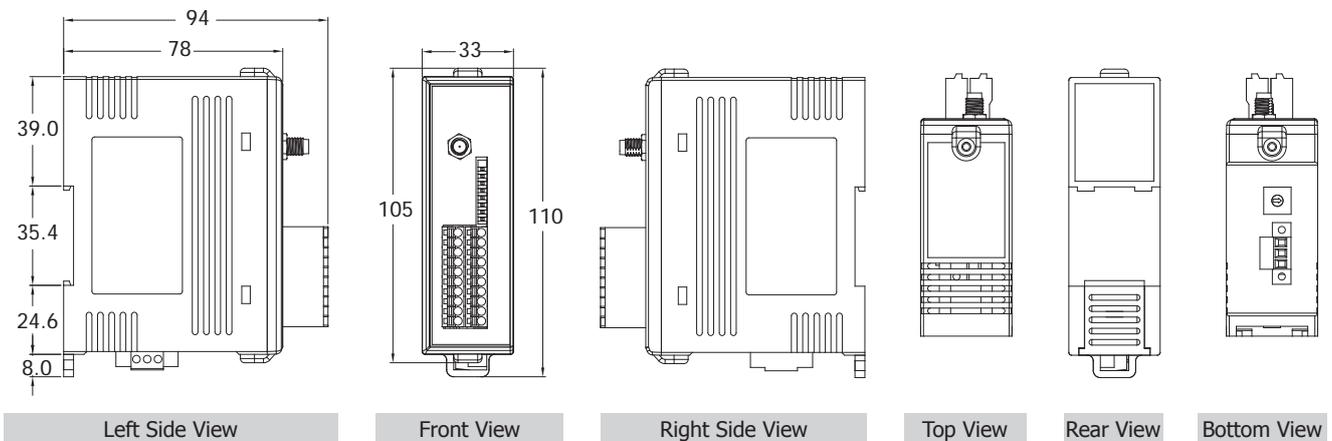
Wiring

Digital Input/Counter	ON State Readback as 1	OFF State Readback as 0
	+3.5 ~ +30 VDC	OPEN or <1 VDC
Sink		
	+3.5 ~ +30 VDC	OPEN or <1 VDC
Source		
Power Relay	ON State Readback as 1	OFF State Readback as 0
Relay Output		

Appearance



Dimensions (Units: mm)



Ordering Information

ZT-2060-10G CR	ZigBee I/O Group (Pair-connection) Module with the 6-channel Isolated Digital Input and 4-channel Relay Output (ZigBee Coordinator & ZigBee Router)(RoHS)
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-2570 CR	Ethernet/RS-485/RS-232 to ZigBee Converter (Host, ZigBee Coordinator) (RoHS)
ZT-USBC	USB to ZigBee Converter (RoHS)
ZT-2510 CR	ZigBee Repeater (Slave, ZigBee Router) (RoHS)
External Antenna	2.4GHz External Antenna, RP SMA Male (Plug)
Extension Cable	3S00x-1, RG58A/U x Meter Long RP-SMA male to RP-SMA Female