



## ZB-2060-T/ZB-2060-PA

Wireless 6-channel Isolated Digital Input and 4-channel Relay Output Module

### Introduction

The ZB-2060-T/ZB-2060-PA offers 4 Form A power relay output channels and 6 digital input channels, each of which features photocouple isolation. In addition, you can choose sink-type or source-type input via wire connections. All channels are able to be used as 16-bit counters. The ZB-2060-T/ZB-2060-PA has 10 LED indicators to display the channel status, and has 4 kV ESD protection and 3000 Vdc intra-module isolation. Users can easily configure the module address, protocol, checksum, ZB-PID and ZB-channel settings using a combination of rotary and DIP switches.

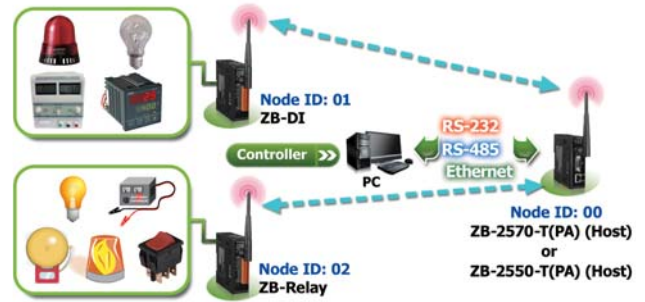
### Features

- ISM 2.4 GHz Operating Frequency
- Fully Compliant with 2.4G IEEE 802.15.4/ZigBee Specifications
- Wireless Transmission Range up to 700 m (PA-Version)
- Wireless Transmission Range up to 100 m (T-Version)
- GUI Configuration Software (Windows Version)
- 6 Digital Input Channels and 4 Relay Output Channels
- Supports 16-bit Counters for Digital Input Channels
- Surge and ESD Protection
- DIN-Rail Mountable



### Applications

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



### System Specifications

Model	ZB-2060-T	ZB-2060-PA
<b>Communication Interface</b>		
Wireless Standards	ZigBee, IEEE 802.15.4	
Transmission Power	4 dBm	22 dBm
2.4 GHz Antenna	3 dBi Omni directional	5 dBi Omni directional
Transmission Range (LoS)	100 m	700 m (Typical) 1 km (Max.)
Certification	CE/FCC, FCC ID	-
Max. Slaves in a ZigBee Network	254	
ZB-100R/ZB-100T Support	Yes	
Protocols	Supports DCON and Modbus RTU Protocols	
Hot Swap	Rotary and DIP switch	
<b>LED Indicators</b>		
Power	1 LED, red	
ZigBee Communication	1 LED, green	
Digital Input and Output	10 LEDs, green	
<b>Power</b>		
Power Consumption	1.2 W Max.	
<b>Mechanical</b>		
Flammability	Fire Retardant Materials (UL94-V0 Level)	
Dimensions (W x L x H)	33 mm x 87 mm x 107 mm	
Installation	DIN-Rail	
<b>Environment</b>		
Operating Temperature	-25 ~ +75°C	
Storage Temperature	-30 ~ +80°C	
Relative Humidity	10 ~ 90% RH, Non-condensing	

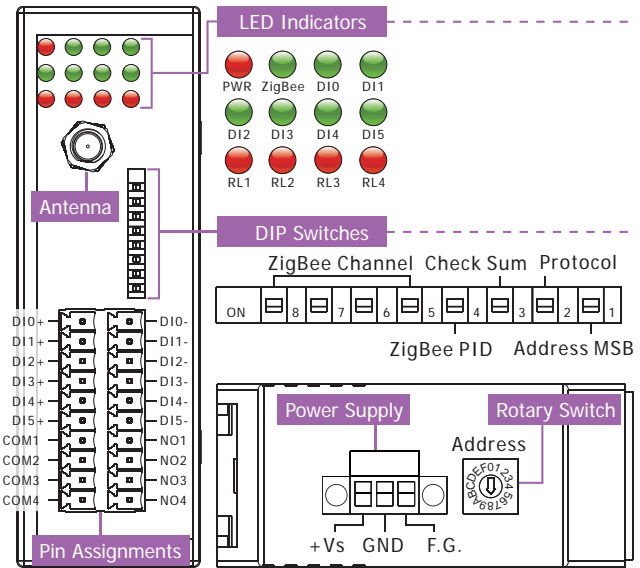
### I/O Specifications

Model	ZB-2060-T	ZB-2060-PA
<b>Digital Input</b>		
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	
Counter	Channels: 6	
	Max. Count: 16-bit (65535)	
	Max. Input Frequency: 100 Hz Min. Pulse Width: 5 ms	
<b>Relay Output</b>		
Output Channels	4	
Output Types	Power Relay, Form A	
Contact Rating	5 A @ (250 VAC/30 VDC)	
Max. Contact Voltage	270 VAC/125 VDC	
Operate Time	10 ms max. at Rated Voltage	
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)
Dielectric Strength	Between Contacts	750 VAC for 1 minute
	Between Coil to Contacts	3,000 VAC for 1 minute
Insulation Resistance	5,080 V (1.2/50 μs)	
Surge Strength	5 ms max. at Rated Voltage	
ESD Protection	+/-4 kV contact for each channel	

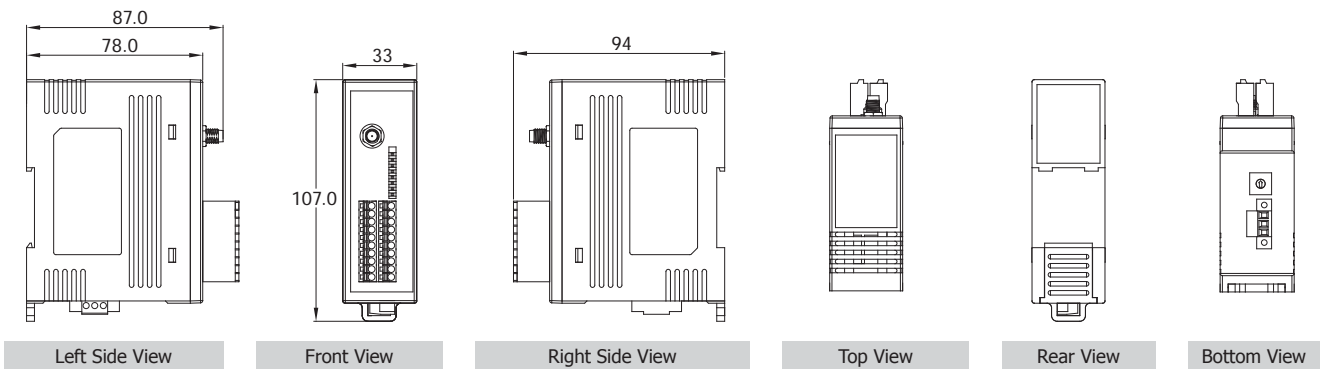
### Wiring

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 Contact	Relay ON 	Relay OFF 
Open Collector	Open Collector ON 	Open Collector OFF 
Output Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
Relay Contact	Relay ON 	Relay OFF 

### Appearance



### Dimensions (Units: mm)



### Ordering Information

ZB-2060-T CR	Wireless 6-channel Isolated Digital Input and 4-channel Relay Output Module (RoHS)
ZB-2060-PA CR	Wireless 6-channel Isolated Digital Input and 4-channel Relay Output Module (RoHS) (Long Range)

**Important Note:** ZigBee Data Acquisition modules need a ZigBee host converter to coordinate the data transmission route. Please remember to order a ZB-2550-T, ZB-2550-PA, ZB-2570-T or ZB-2570-PA ZigBee host converter when you purchase ZigBee Data Acquisition Products.

### Accessories

MDR-20-24	24 VDC/1.0 A, 24 W Power Supply with DIN-Rail Mounting
ZB-2510-T CR	ZigBee Repeater (RoHS)
ZB-2510-PA CR	ZigBee Repeater (RoHS)
ZB-2550-T CR	RS-485/RS-232 to ZigBee Converter (Host)
ZB-2550-PA CR	RS-485/RS-232 to High Power Amplifier ZigBee Converter (Host) (RoHS)
ZB-2570-T CR	Ethernet/RS-485/RS-232 to ZigBee Converter (Host) (RoHS)
ZB-2570-PA CR	Ethernet/RS-485/RS-232 to High Power Amplifier ZigBee Converter (Host) (RoHS)

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ZigBee Products