



## ZB-2042-T

Wireless 4-ch PhotoMOS Relay Output and  
4-ch Open Collector Output Module

### Introduction

The ZB-2042-T offers 4-ch PhotoMOS Relay output and 4-ch sink type digital outputs with short circuit protection. All channels features photo-couple isolation. ZB-2042-T has 8 LED indicators for DO channel status. 4 kV ESD protection and 3750 Vdc intra-module isolation are the standard. Users can be easy to configure the module address, Protocol, Checksum, ZB-PID and ZB-ch by rotary and DIP switch.

### Features

- ISM 2.4 GHz Operating Frequency
- Fully Compliant 2.4 G IEEE802.15.4/ZigBee Specifications
- Wireless Transmission Range up to 700 m (ZB-2550P/ZB-2570P)
- Wireless Transmission Range up to 100 m (ZB-2550/ZB-2570)
- GUI Configuration Software (Windows Version)
- 8 Digital Output for PhotoMOS and Open Collector Output
- Short Circuit Protection
- Surge and ESD Protection
- DIN-Rail Mount



### Applications

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

### I/O Specifications

Relay Output	
Output Channel	4
Output Type	PhotoMOS Relay, Form A
Load Voltage	60 Vdc/Vac
Max. Load Current	60 V/1.0 A (Operating Temperature: -25 °C ~ +40 °C)
	60 V/0.8 A (Operating Temperature: +40 °C ~ +60 °C)
	60 V/0.7 A (Operating Temperature: +60 °C ~ +75 °C)
Turn On Time	5.0 ms
Turn Off Time	0.5 ms
Digital Output	
Output Channel	4 (Sink)
Output Type	Isolated Open Collector
Max. Load Current	700 mA/channel
Load Voltage	+5 Vdc ~ +50 Vdc
Turn Off Time	0.5 ms
External Power Reversed Protection and Short Circuit Protection	Yes
Current Limited Protection	1.1 A
Intra-module Isolated, Field to Logic	3000 Vdc
ESD Protection	+/-4 kV Contact for each channel

### System Specifications

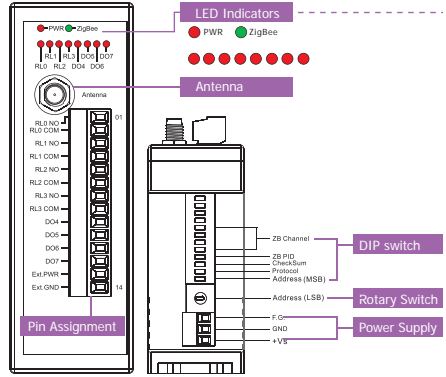
Communication Interface	
Wireless	ZigBee, IEEE 802.15.4 Standard
Antenna	2.4 GHz-3 dBi Omni-Directional antenna
Protocols	Supports DCON and Modbus RTU Protocols
Hot Swap	By Rotary and DIP switch
LED Indicators	
Power	1 LED, red
ZigBee Communication	1 LED, green
Digital Output	8 LEDs, red
Power	
Power Consumption	0.88 W max.
Mechanical	
Flammability	Fire Retardant Materials (UL94-V0 Level)
Dimensions (W x L x H)	33 mm x 87 mm x 107 mm
Installation	DIN-Rail
Environment	
Operating Temperature	-25 °C ~ +75 °C
Storage Temperature	-30 °C ~ +80 °C
Humidity	10 ~ 90% RH, non-condensing

**Wiring**

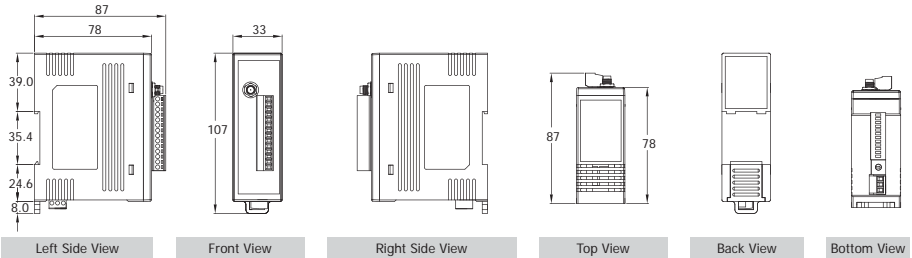
Relay Output	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
	Relay ON	Relay OFF
From A Relay Contact		

Digital Output	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
	Relay ON	Relay OFF
Drive Relay		
Resistance Load		

**Appearance**



**Dimensions (Unit: mm)**



**Ordering Information**

ZB-2042-T CR	Wireless 4-ch PhotoMOS Relay Output and 4-ch Open Collector Output Module (RoHS)
Important Note: The ZigBee AIO modules need a ZB-2570 to coordinate the data transmission route, please remember to also order a ZB-2570 when you purchase the ZB DIO products.	

**Accessories**

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