



ZT-2042

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

Introduction

The ZT-2042 offers 4 PhotoMOS relay output channels and 4 sink-type digital output channels with short circuit protection. Each channel features photo couple isolation. There are options for configuring power-on and safe digital output values. The ZT-2042 has 8 LED indicators to display the DO channel status. 4 kV ESD protection and 3000 VDC intra-module isolation are the standard. Users can easily configure the module address, protocol, checksum, ZB-PID and ZB-channel settings using a combination of rotary and DIP switches.

System Specifications

Communication Interface	
Wireless Standards	ZigBee 2007 Pro
Transmission Power	11 dBm (FCC Certified) (Max 19 dBm)
Antenna	2.4 GHz - 5 dBi Omni-directional Antenna
Transmission Range (LoS)	700 m (Typical)
Protocols	Supports DCON and Modbus RTU Protocols
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)
LED Indicators	
Power	1 LED, Red
ZigBee Communication	1 LED, Green
Digital Output	8 LEDs, Red
Isolation	
Intra-module Isolated, Field-to-Logic	3000 VDC
EMS Protection	
Power	1 LED, Red
ZigBee Communication	1 LED, Green
Digital Output	8 LEDs, Red
Power	
Input Voltage Range	+10 VDC ~ +30 VDC
Power Consumption	1.32 W Max.
Mechanical	
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
Humidity	10 ~ 90% RH, Non-condensing

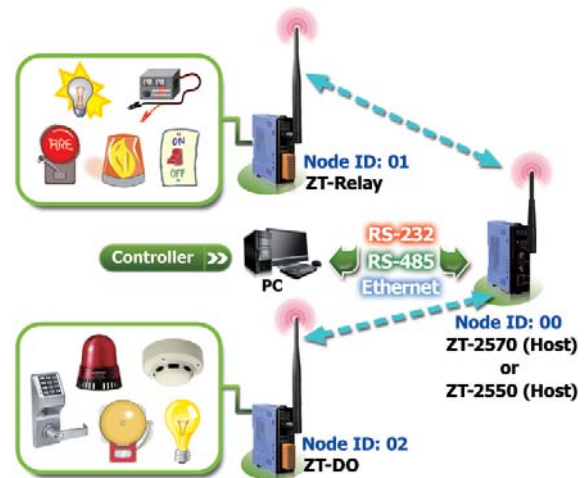
Features

- ISM 2.4 GHz Operating Frequency
- Fully Compliant with ZigBee 2007 Pro Specifications
- Wireless Transmission Range up to 700 m (Default)
- Supports AES-128 Encryption for the Wireless Communication (Passive)
- 4 PhotoMOS Relay Output Channels and 4 Open Collector Digital Output Channels
- Configurable Power-on Value and Safe Value Settings



Applications

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



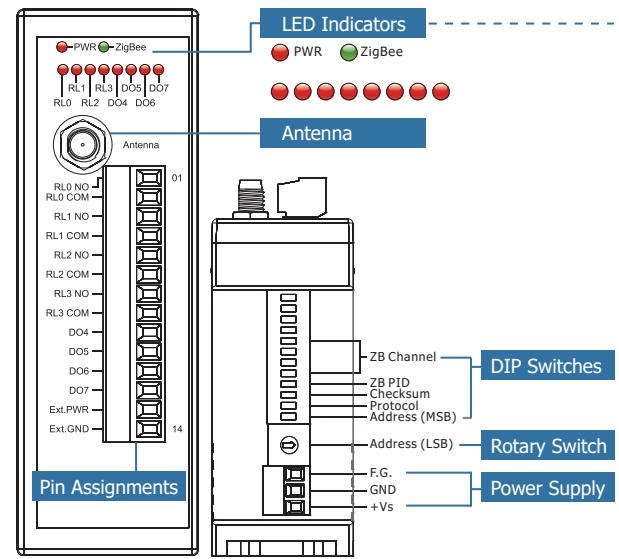
I/O Specifications

Relay Output	
Output Channels	4
Output Types	0 ~ +10 VDC, -10 VDC ~ +10 VDC, 0 ~ +5 VDC, -5 VDC ~ +5 VDC, 0 ~ +20 mA, +4 mA ~ +20 mA
Load Voltage	12-bit
Max. Load Current	±0.1% of FSR
	0.125 to 2048 mA/ second 0.0625 to 1024 V/ second
Power-on Time	10 V @ 10 mA
Power-off Time	External +24 V power : 1050 Ω
Power-on Value	2500 VDC
Safe Value	Yes
Digital Output	
Resolution	12-bit
Accuracy	±0.1% of FSR
Programmable Output Slope	0.125 to 2048 mA/ second
	0.0625 to 1024 V/ second
Voltage Output Capability	10 V @ 10 mA
Current Load Resistance	External +24 V power : 1050 Ω
Intra-module Isolation, Field-to-Logic	2500 VDC
Power-on Value	Yes
Intra-module Isolation, Field-to-Logic	2500 VDC

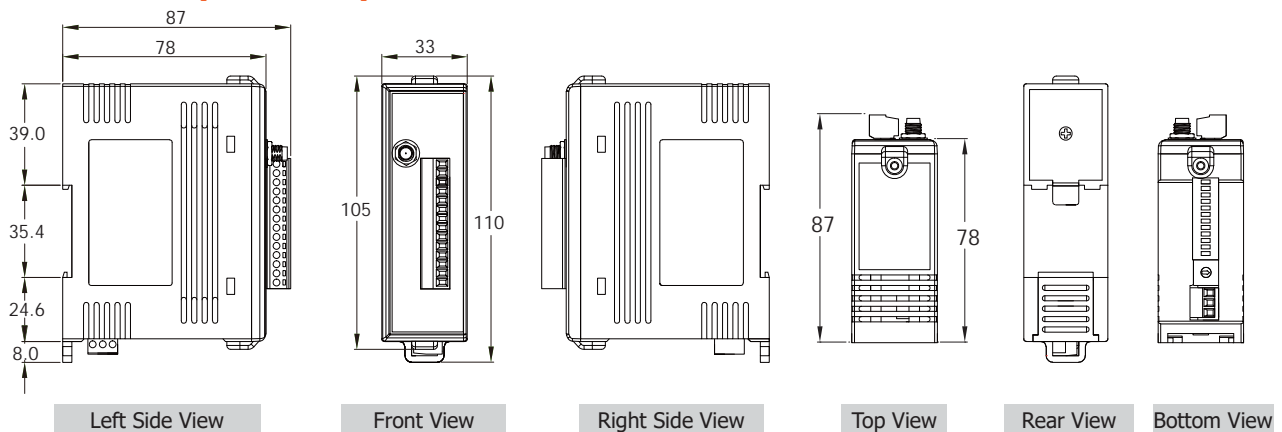
Wiring

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

Appearance



Dimensions (Units: mm)



Ordering Information

ZT-2042 CR	Wireless 4-channel PhotoMOS Relay Output and 4-channel Open Collector Output Module (ZigBee Router) (RoHS)
Important Note: ZigBee Data Acquisition modules need a ZigBee host converter to coordinate the data transmission route. Please remember to order a ZT-2550, ZT-2570, and ZT-USBC 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
ZT-2510 CR	ZigBee Repeater (RoHS)
ZT-2550 CR	RS-485/RS-232 to ZigBee Converter (Host)
ZT-2570 CR	Ethernet/RS-485/RS-232 to ZigBee Converter (Host) (RoHS)
External Antenna	2.4 GHz External Antenna, RP SMA Male (Plug)
Extension Cable	3S00x-1, RG58A/U × Meter Long RP-SMA (male) to RP-SMA (female)