



ZB-2024-T/ZB-2024-PA

Wireless 4-channel Voltage/Current Output Module

Introduction

The ZB-2024-T/ZB-2024-PA is a 12-bit, 4-channel analog output wireless ZigBee module that provides a programmable output range on all channels, including $0 \sim +10 \text{ VDC}$, $-10 \text{ VDC} \sim +10 \text{ VDC}$, $0 \sim +5 \text{ VDC}$, $-5 \text{ VDC} \sim +5 \text{ VDC}$, $0 \sim +20 \text{ mA}$ or $+4 \text{ mA} \sim +20 \text{ mA}$. There are also options for configuring the power-on value and the safe value. The module address, protocol, checksum, ZB-PID, ZB-channel and type code settings can be easily configured settings using a combination of rotary and DIP switches.

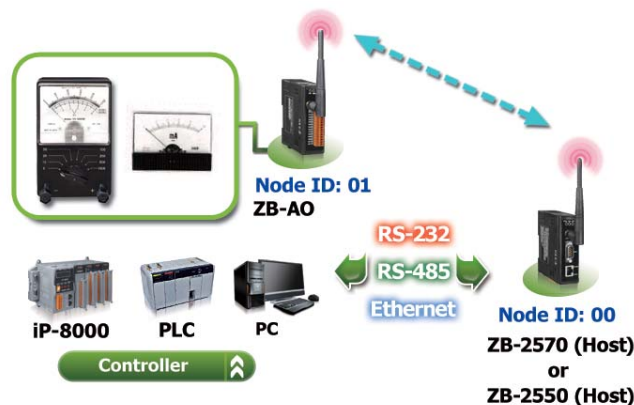
Features

- 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)
- 4 Analog Output Channels (V, mA)
- EFT and ESD Protection
- DIN-Rail Mounting



Applications

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



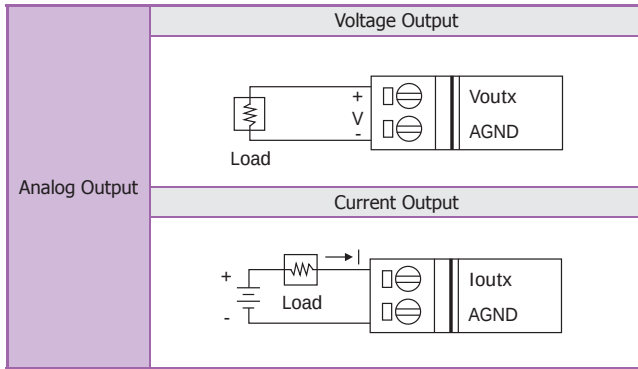
System Specifications

Model	ZB-2024-T	ZB-2024-PA
Communication Interface		
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	
LED Indicators		
Power	1 LED, red	
ZigBee Communication	1 LED, green	
Power		
Power Consumption	2.3 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	

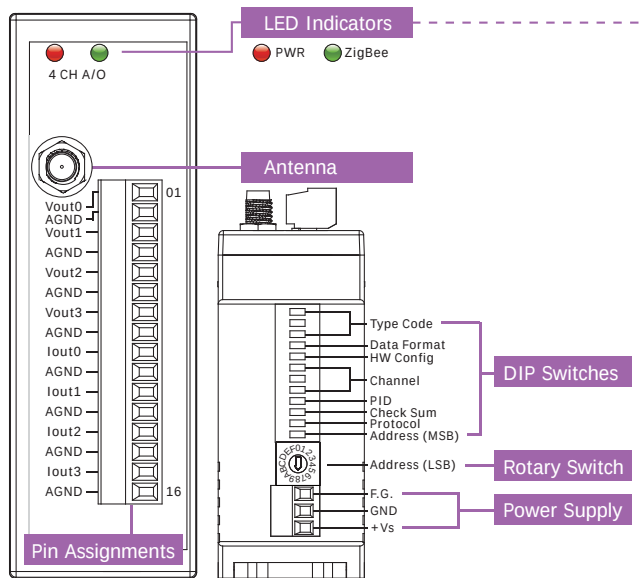
I/O Specifications

Model	ZB-2024-T	ZB-2024-PA
Analog Output		
Output Types	$0 \sim +10 \text{ VDC}$, $-10 \text{ VDC} \sim +10 \text{ VDC}$, $0 \sim +5 \text{ VDC}$, $-5 \text{ VDC} \sim +5 \text{ VDC}$, $0 \sim +20 \text{ mA}$, $+4 \text{ mA} \sim +20 \text{ mA}$	
Resolution	12-bit	
Accuracy	$\pm 0.1\%$ of FSR	
Zero Drift	$\pm 30 \mu\text{V}/^{\circ}\text{C}$	
Span Drift	$\pm 25 \text{ ppm}/^{\circ}\text{C}$	
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	
Power-on and Safe Value	Yes	
Intra-module Isolation, Field-to-Logic	2500 Vdc	
ESD Protection	$\pm 4 \text{ kV}$ contact for each channel	

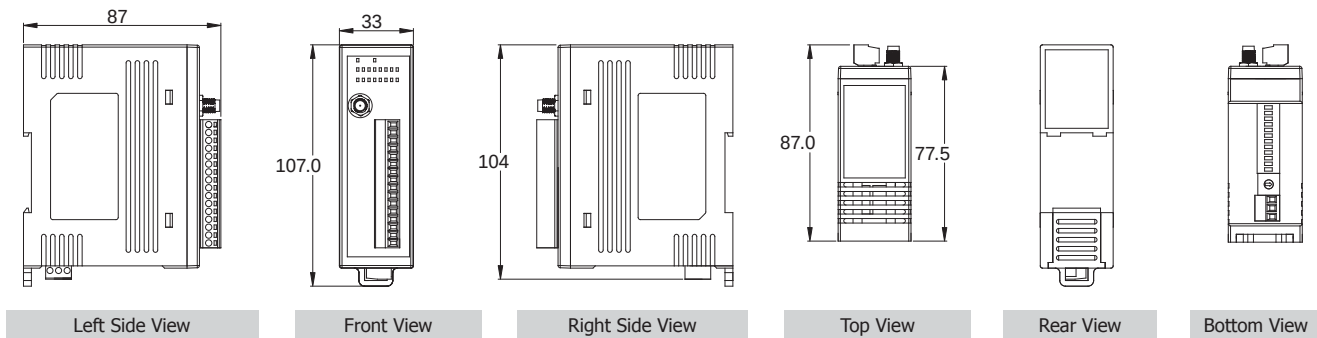
Wiring



Appearance



Dimensions (Units: mm)



Ordering Information

ZB-2024-T CR	Wireless 4-channel Voltage/Current Output Module (RoHS)
ZB-2024-PA CR	Wireless 4-channel Voltage/Current 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)