ZT-2550/ZT-2551

Features

- ISM 2.4 GHz Operating Frequency
- Fully Compliant with 2.4 G (IEEE802.15.4/ZigBee Specifications)
- Fully Compliant with ZigBee Pro (ZigBee 2007)
- Wireless Transmission Range up to 700 m
- GUI Configuration Software (Windows Version)
- RS-232/RS-485/Ethernet Interface Supported
- DIN-Rail Mountable

Introduction

The ZT-2550 and ZT-2551 series modules are small-sized wireless ZigBee converters based on the IEEE802.15.4 standard that allow RS-232, RS-485 interface to be converted to a personal area ZigBee network. The typical transmission of ICP DAS ZT series ZigBee products is 700 meters (LOS, line of sight), with a transmission frequency range of between 2.405 GHz and 2.48 GHz, separated into 5 MHz sectors, providing 16 channels and 16384 PAN IDs. ZT-2000 series is not only a long distance wireless converter but also can act a ZigBee router to extend the transmission range and improve the quality of wireless signal.

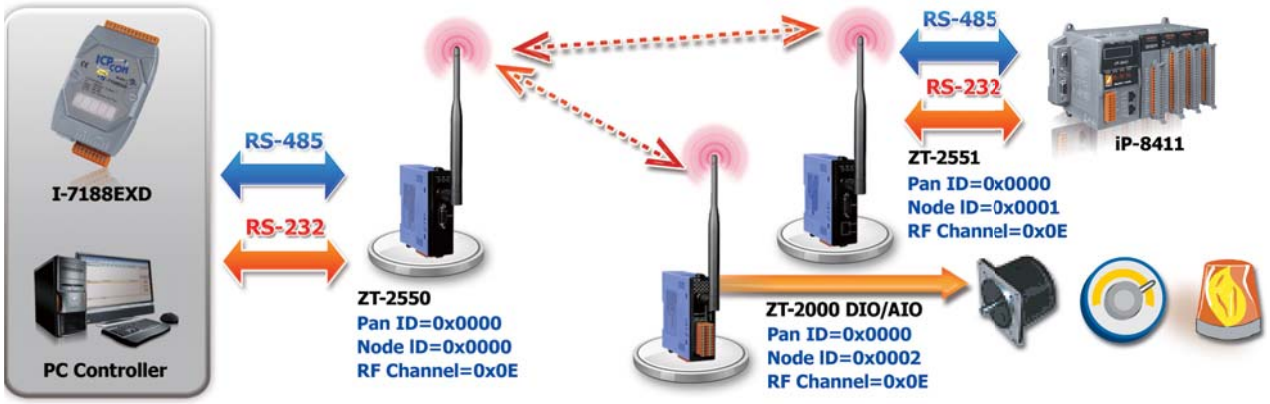
ZT-2000 series products are specification for a suite of high level communication protocols using small, low-power digital radios module, which are fitted the ZigBee 2007 (ZigBee Pro) of ZigBee Alliance. In the ZigBee network, it is only allowed one ZigBee Host and called “ZigBee Coordinator”, ZT-2550 series products, are used to initialize and manager the routing. In addition, One ZigBee network are able to manager 255 ZigBee router and responsible for receiving or bypassing data from parent or child node.

A Windows compatible GUI configuration utility is available. The utility allows users to set different configurations based on the type of application, together with several of required ZigBee variables such as Pan ID. The friendly user interface is also helping user be familiar with ZT-2000 series.

Specifications

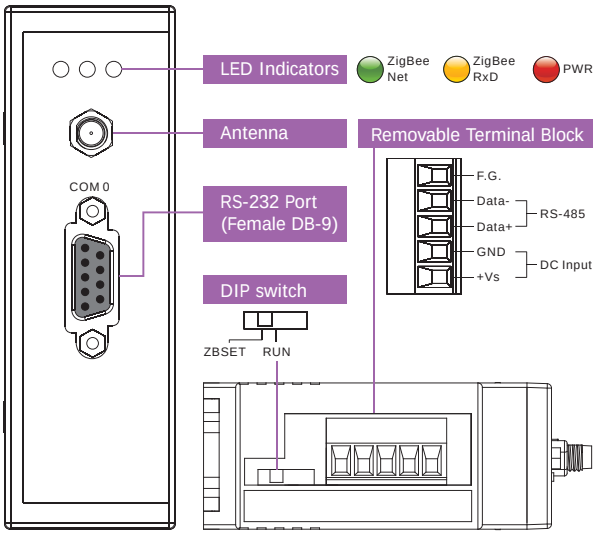
Models		ZT-2550 (ZigBee Coordinator)	ZT-2551 (ZigBee Router)
Hardware			
MCU Module		8-bit microprocessor	
Temporary Buffer Size		265 Bytes	
LED Indicators	ZigBee Net	Green	
	ZigBee RxD	Yellow	
	Power	Red	
Communication Interface			
COM 0	RS-232	RS-232 (TxD, RxD and GND);	
		D-Sub 9 Female, Non-isolated	D-Sub 9 Male, Non-isolated
	RS-485	RS-485 (DATA+, DATA-; internal ASIC self-tuner); Non-isolated	
	Data Format	N81/O71/E71/N82/O81/E81	
Power			
Protection		Power reverse polarity protection	
EMS Protection		ESD, Surge, EFT	
Required Supply Voltage		+10 VDC ~ +30 VDC	
Power Consumption		1 W	
Mechanical			
Casing		Plastic	
Flammability		UL 94V-0 fire-retardant materials	
Dimensions (W x L x H)		33 mm x 87 mm x 110 mm	
Installation		DIN-Rail	
Environment			
Operating Temperature		-25 ~ +75°C	
Storage Temperature		-40 ~ +80°C	
Relative Humidity		5 ~ 95% RH, Non-condensing	
Wireless			
RF Channel		16	
RF Transmit Power		11 dBm	
Antenna (2.4 GHz)		5 dBi Omni-Directional antenna	
Transmit Range (LOS)		700 m (Typical)	
Max. Slaves Supported		255	
EMI Certification		CE/FCC, FCC ID	

Applications

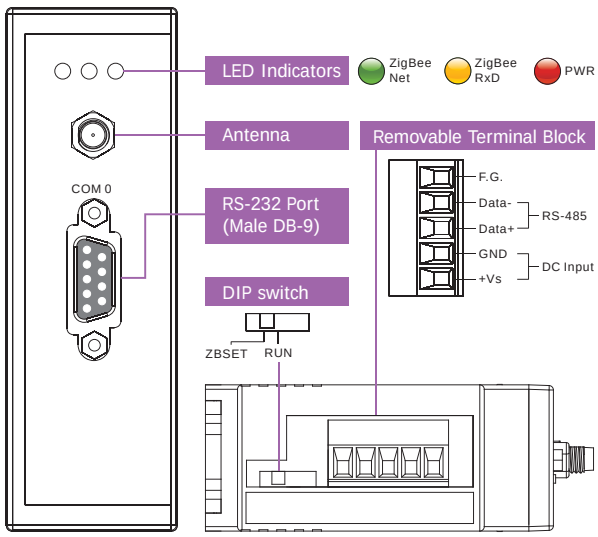


Appearance

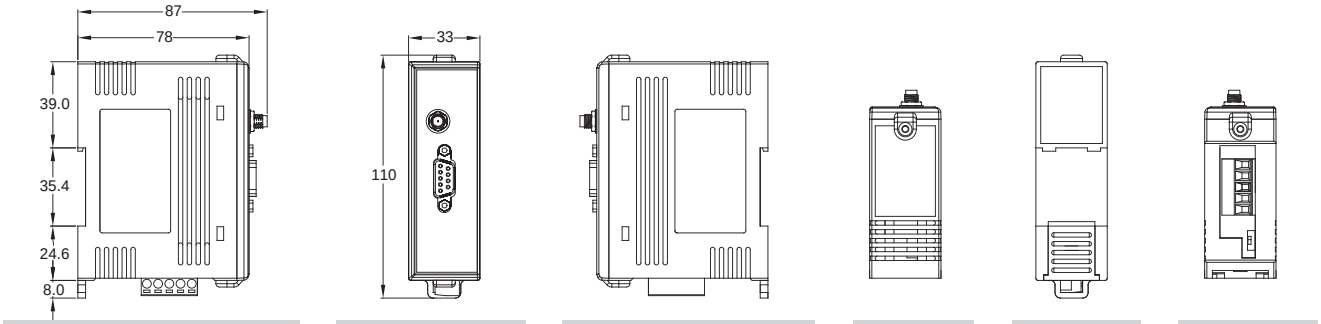
ZT-2550



ZT-2551



Dimensions (Units: mm)



Left Side View | Front View | Right Side View | Top View | Rear View | Bottom View

Ordering Information

ZT-2550 CR	RS-485/RS-232 to ZigBee Converter (Host, ZigBee Coordinator) (RoHS)
ZT-2551 CR	RS-485/RS-232 to ZigBee Converter (Slave, ZigBee Router) (RoHS)

Accessories

ZT-2550 CR	RS-485/RS-232 to ZigBee Converter (Host, ZigBee Coordinator) (RoHS)
ZT-2551 CR	RS-485/RS-232 to ZigBee Converter (Slave, ZigBee Router) (RoHS)
ZT-2570 CR	Ethernet/RS-485/RS-232 to ZigBee Converter (Host, ZigBee Coordinator) (RoHS)
ZT-2571 CR	Ethernet/RS-485/RS-232 to ZigBee Converter (Slave, ZigBee Router) (RoHS)
ZT-2000 DIO series	Wireless digital input and digital output ZigBee I/O device
ZT-2000 AIO series	Wireless differential analog input and analog output ZigBee I/O device