

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)
- Adjustable RF Transmission Output Power
- Supports AES-128 Encryption for the Wireless Communication
- GUI Configuration Software (Windows Version)
- RS-232/RS-485/Ethernet Interface Supported
- Source Identification for the non-address Device Data Transmission
- Supports Broadcast Transmission for the Redundancy Transmission Path
- Supports Unicast Transmission to Reduce Network Loading
- Supports Topology Utility for Network Monitoring and Improvement
- 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 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.

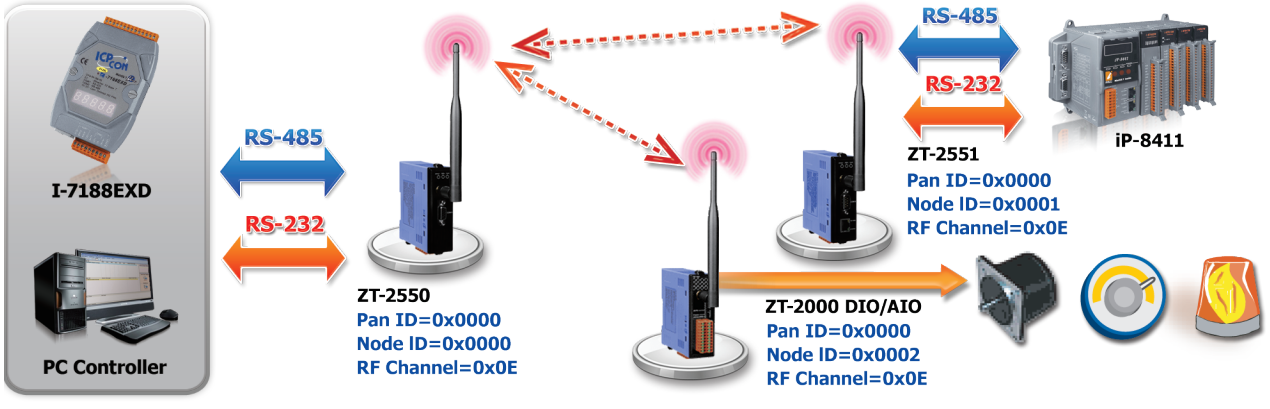
A Windows compatible GUI configuration utility is available. The utility allows users to set different configurations based on the type of application, together with several of required ZigBee variables such as Pan ID. The friendly user interface is also helping user be familiar with ZT-2000 series.

Specifications

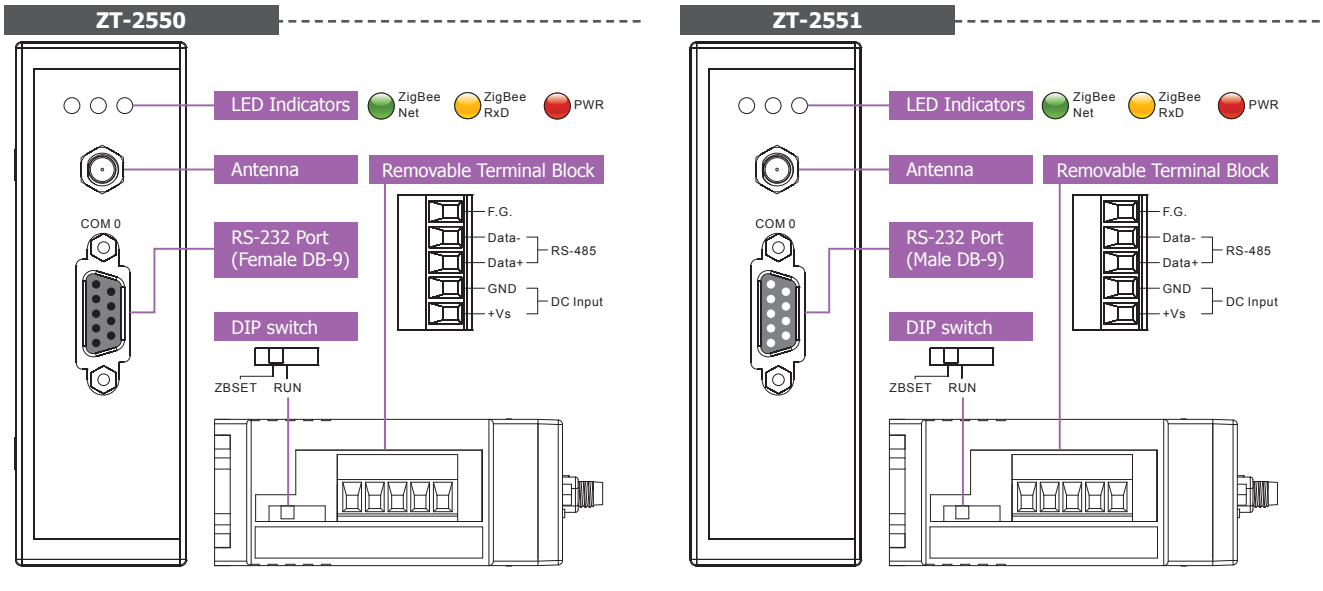
Models		ZT-2550 (ZigBee Coordinator)	ZT-2551 (ZigBee Router)
CPU Module			
CPU		8-bit microprocessor	
CPU Module			
Status		1 x Power 1 x Net 1 x RxD	
RF			
Channels		16	
Transmission Power		Up to 10 dBm EIRP	
ZigBee			
Antenna		5 dBi Omni-Directional antenna	
Max. Slaves		255	
Transmission Distance (LoS)		300 meters	
COM Ports			
Ports	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	
Power			
Input Range		+10 VDC ~ +30 VDC	
Consumption		1 W	
Mechanical			
Casing		Plastic	
Dimensions (mm)		30 x 87 x 110 (W x L x H)	
Installation		DIN-Rail	
Environment			
Operating Temperature		-25 ~ +75 °C	
Storage Temperature		-40 ~ +80 °C	
Humidity		5 ~ 95% RH, Non-condensing	

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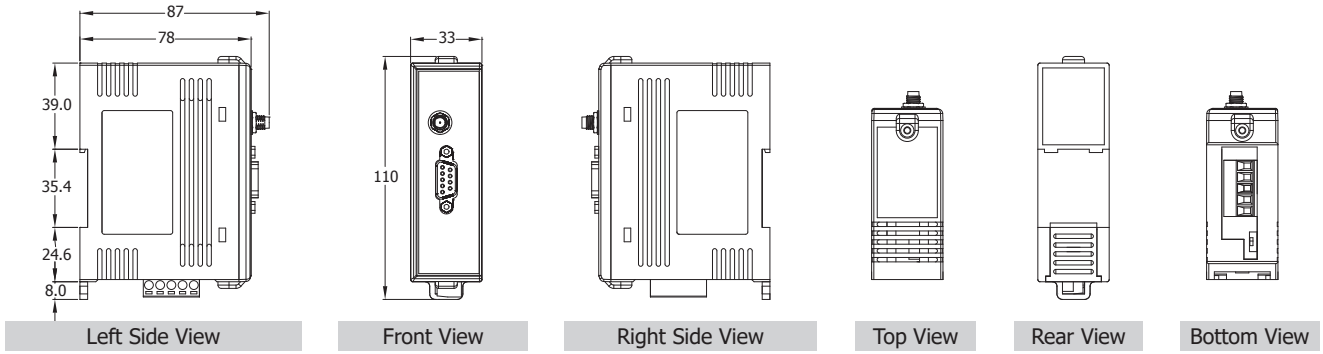
Applications



Appearance



Dimensions (Units: mm)



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-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-2510 CR	ZigBee Repeater (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
Power Supply	12 V/24 V Power Supply
External Antenna	2.4 GHz External Antenna, RP SMA Male (Plug)
Extension Cable	3S00×-1, RG58A/U x Meter Long RP-SMA male to RP-SMA Female

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