

8. ZigBee Products



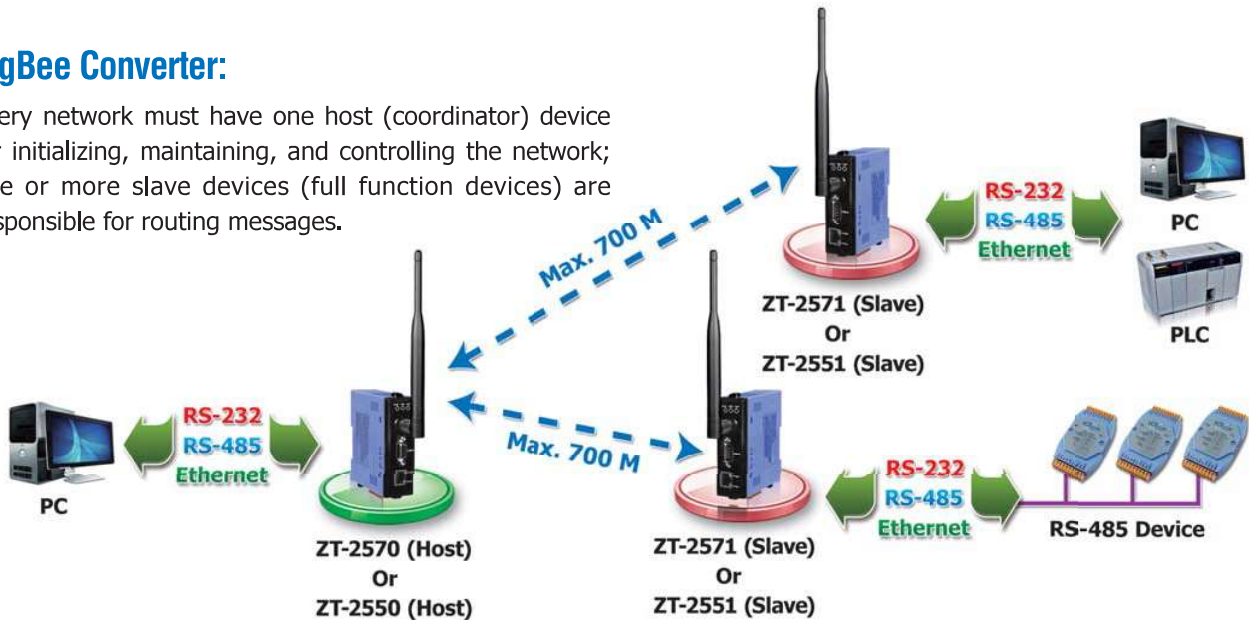
Features:

- ISM 2.4 GHz Operating Frequency and Fully Compliant with 2.4 G IEEE 802.15.4 / ZigBee PRO (2007)
- Support 3 Topologies Defined in the ZigBee Standard: Mesh, Star and Cluster Tree
- Support the 128-bit AES (Advanced Encryption Standard) Encryption
- GUI Configuration Software (Windows Version)
- ZigBee Node Supports Active Routing
- Supports Topology Utility for Network Monitoring and Improvement
- Wireless Transmission Range up to 700 m (Default)
- Provide Signal Strength LED Indicator
- Wide Operating Temperature (-25 ~ 75°C)

ZigBee is a specification based on the IEEE 802.15.4 standard for wireless personal area networks (WPANs). ZigBee operates in the ISM radio bands, and it defines a general-purpose, inexpensive, self-organizing, mesh network for industrial control, medical data collection, smoke and intruder warning, building automation and home automation, etc.

ZigBee Converter:

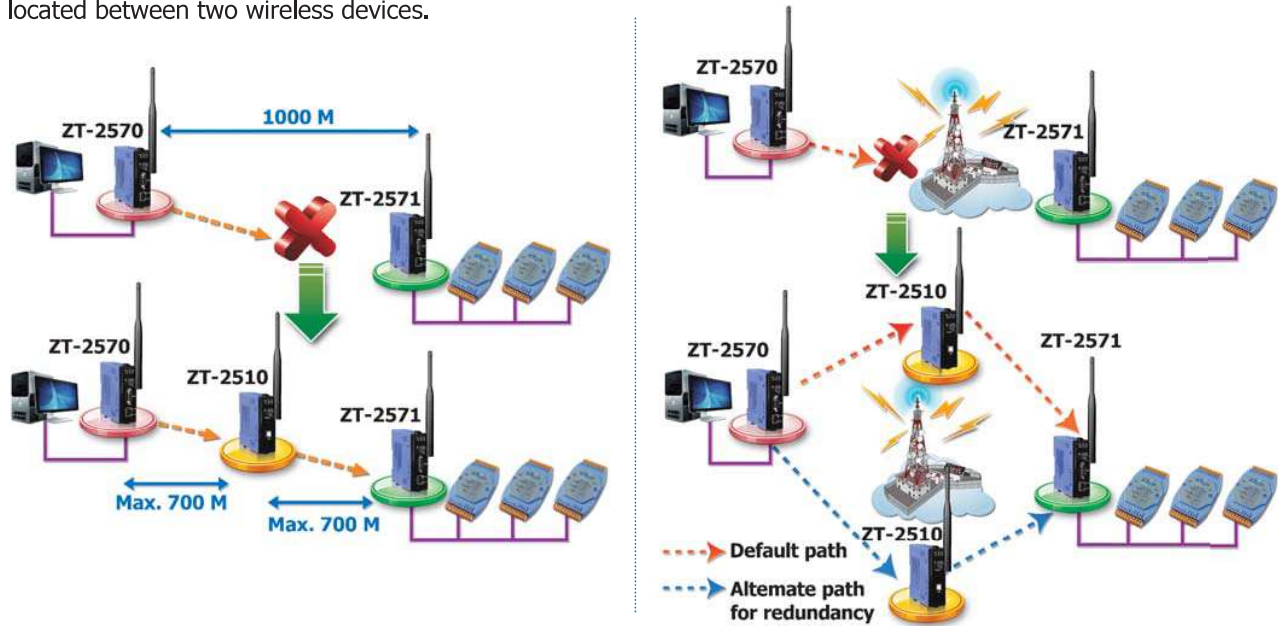
Every network must have one host (coordinator) device for initializing, maintaining, and controlling the network; one or more slave devices (full function devices) are responsible for routing messages.



| Model Name | Interface | Module Type | Transmit Power | Antenna | Distance (LOS) |
|------------|---|---------------------------------------|----------------|--|----------------|
| ZT-2550 | 1 × RS-232 · 1 × RS-485 | Host (Coordinator) | 11 dBm | 2.4 GHz, 5 dBi Omni-Directional antenna | 700 m |
| ZT-2551 | 1 × RS-232 · 1 × RS-485 | Slave (Router) | 11 dBm | 2.4 GHz, 5 dBi Omni-Directional antenna | 700 m |
| ZT-2570 | 1 × RS-232 · 1 × RS-485 1 × Ethernet | Host (Coordinator) | 11 dBm | 2.4 GHz, 5 dBi Omni-Directional antenna | 700 m |
| ZT-2571 | 1 × RS-232 · 1 × RS-485 1 × Ethernet | Slave (Router) | 11 dBm | 2.4 GHz, 5 dBi Omni-Directional antenna | 700 m |
| ZT-USBC | 1 × USB | Full Function (Coordinator/Router) | 3 dBm | 2.4 GHz, PCBantenna | 60 m |

ZigBee Repeater:

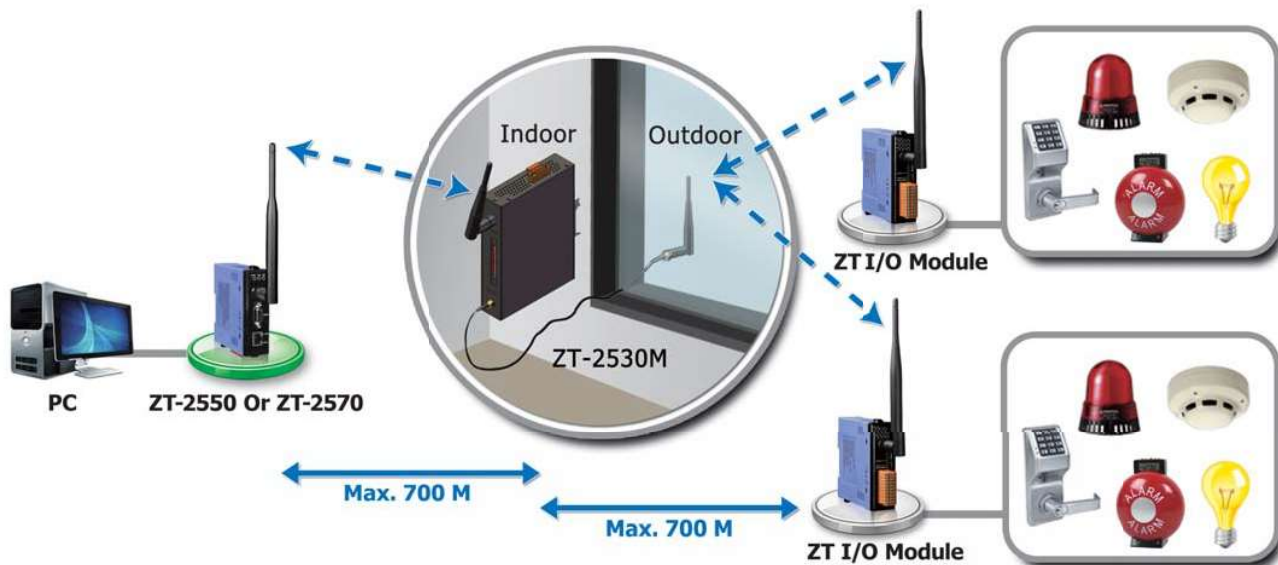
The ZT-2510 is a ZigBee repeater to extend the distance of ZigBee network or avoid an obstacle that may be located between two wireless devices.



| Model Name | Interface | Module Type | Transmit Power | Antenna | Distance (LOS) |
|------------|-----------|----------------|----------------|--|----------------|
| ZT-2510 | ZigBee | Slave (Router) | 11 dBm | 2.4 GHz, 5 dBi Omni-Directional antenna | 700 m |

ZigBee Bridge:

The ZT-2530M is a ZigBee bridge operating as a bridge between two ZigBee networks. It is full hardware configuration, used to communicate indoor and outdoor units or divide complex network to enhance efficiency.



| Model Name | Interface | Module Type | Transmit Power | Antenna | Distance (LOS) |
|------------|-----------|--|----------------|--|----------------|
| ZT-2530M | ZigBee | Slave (Router) + Host (Coordinator) | 11 dBm | 2.4 GHz, 5 dBi Omni-Directional antenna | 700 m |

ZigBee I/O Group Module (Full Function):



The ZT-20xx-IOG is a self-controller that no programming and no dealing with the wireless communication interference needs, but can quickly establish, monitor and manage the I/O pair-connection with the decentralized DIO channels. It suits the wireless I/O Pair-connection applications for the environment of needing many I/O points, large communication range and not easy wiring.

The ZT-20xx-IOG provides Ethernet, RS-232 or RS-485 communication interface. It is a data concentrator that no programming and no dealing with the wireless communication interference needs, but can quickly establish, monitor and manage the I/O pair-connection with the decentralized DIO channels. It suits the multi-host monitoring and I/O Pair-connection wireless applications for the environment of needing many I/O points, large communication range and not easy wiring.



| Model Name | Channel | Type | Channel | Type |
|-------------|---------|------------------------------|---------|------------------------------------|
| ZT-2043-IOG | DO: 14 | Open Collector (700mA, Sink) | | |
| ZT-2053-IOG | DI: 14 | Dry/Wet (Sink/Source) | | |
| ZT-2055-IOG | DI: 8 | Dry/Wet (Sink/Source) | DO: 8 | Open Collector (650 mA, Sink) |
| ZT-2060-IOG | DI: 6 | Wet (Sink/Source) | DO: 4 | Power Relay (5 A @ 250 VAC/30 VDC) |

ZigBee I/O Module (Router):



| Model Name | Channel | Type | Channel | Type |
|------------|---------|---|---------|--|
| ZT-2005-C8 | AI: 8 | 10 K Thermistor (Measuring Temperature Range: -40°C ~ 105°C) | | |
| ZT-2015 | AI: 6 | Pt100, Pt1000, Ni120, Cu100, Cu1000 | | |
| ZT-2017 | AI: 8 | ±10 V, ±5 V, ±1V, ±500 mV, ±150 mV or -20 mA ~ +20 mA (Requires External 125 Ω Resistor) | | |
| ZT-2017C | AI: 8 | 20 mA ~ +20 mA, 0 mA ~ +20 mA or +4 mA ~ +20 mA | | |
| ZT-2018 | AI: 8 | ±15 mV, ±50 mV, ±100 mV, ±500 mV, ±1V, ±2.5V, ±20 mA, 0 ~ 20 mA or 4 ~ 20 mA Thermocouple (J, K, T, E, R, S, B, N, C, L, M, LDIN43710)(Requires Optional External 125 Ω Resistor for current input) | | |
| ZT-2024 | AO: 4 | 0 ~ +10 VDC, -10 VDC ~ +10 VDC, 0 ~ +5 VDC, -5 VDC ~ +5 VDC, 0 ~ +20 mA, +4 mA ~ +20 mA | | |
| ZT-2026 | AI: 4 | ±10 V, ±5 V, ±1 V, ±500 mV, ±150 mV or -20 mA ~ +20 mA | AO: 2 | ±10 VDC, ±5 VDC, 0 ~ 10 VDC or 0 ~ 5 VDC |
| | DI: 2 | Wet (Sink) | DO: 2 | Open Collector (700 mA, Sink) |
| ZT-2042 | DO: 8 | 4*PhotoMOS Relay (1 A, Sink/Source) / 4*Open Collector (700 mA, Sink) | | |
| ZT-2043 | DO: 14 | Open Collector (700mA, Sink) | | |
| ZT-2052 | DI: 8 | Wet (Sink/Source) | | |
| ZT-2053 | DI: 14 | Dry/Wet (Sink/Source) | | |
| ZT-2055 | DI: 8 | Dry/Wet (Sink/Source) | DO: 8 | Open Collector (650 mA, Sink) |
| ZT-2060 | DI: 6 | Wet (Sink/Source) | DO: 4 | Power Relay (5 A @ 250 VAC/30 VDC) |

ZigBee Accessories: External Antenna/Cable:



| Optional Accessories | Description and Website |
|---|--|
| External Antenna | 2.4 GHz External Antenna, RP-SMA Male (Plug) |
| External Antenna: http://www.icpdas.com/root/product/solutions/industrial_wireless_communication/wlan_products/external_antenna.html | |
| External Cable | 3S00x-1, RG58A/U x-meter long RP-SMA male to RP-SMA Female |
| Extension Cable: http://www.icpdas.com/root/product/solutions/accessories/cable/cable_selection.html | |