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Intelligent Home Automation System

Wireless Sensor Network Based on ZigBee Technology

ISO-9001

IECQ QC 080000



SMART ENERGY
HOME AUTOMATION

Product Catalogue

2018

2018.07.03

Wireless Intellectual Home Automation System

Home Care - Home Automation - Smart Energy

In recent years, man's work and life are increasingly tight with telecommunication and information. The informationized society has changed human being's way of life as well as challenged the traditional residence.

Followed by the rapid economic expansion, living standard keeps raising up day by day that people have a higher requirement for dwelling functions. The intellectualized society brings diversified information and safe, comfortable and convenient life has become the ideal for every modern family.

Nowadays, intellectual home automation system is progressively popularized and moving toward to us with popular pricing. The system utilizes household electric appliances, intellectual electric controlling center, broadband network etc. to link the equipments of electricity, water and gas into one unit and connect to external internet. This will carry out the goal of modernized home integration system of automation control and management, house burglarproof and security and remotely control the household electric appliances through internet. The basic target of intellectual home automation system is to provide people a comfortable, safe, convenient and high efficient life environment and a humanistic service. To this end, Netvox launches our won intellectual home automation control network technology. ZigBee wireless intellectualized home system is the home automation control network based on ZigBee wireless telecommunication technology.

What is ZigBee?

ZigBee is a short coverage, low data rate wireless telecommunication technology. The term "ZigBee" originates from the zig-zag waggle dance honeybees use to share critical information.

Its features are short range, less complication, low power, low data rate and low cost. It's widely deployed in the field of auto-control and remote control and can be integrated with various devices. ZigBee lies in between wireless markup technology and Bluetooth. It's mainly applicable in short range wireless communication and connection. ZigBee is based on IEEE802.15.4 standard and through the mutual co-ordination between thousands of tiny sensors, that brings about the telecommunication. These sensors require low power and they send the data from one sensor to another through radio waves and consequently they come with rather high telecommunication efficiency. In brief, ZigBee is a comparatively low cost, low power, short coverage wireless network telecommunication technology.

Feature	Wi-Fi	Bluetooth	ZigBee
Battery life time	Several hours	Several days	Several years
Complexity	High complexity	Complex	Simple
Nodes Number	32	7	65000
Time for network communication	3 seconds	10 seconds	30 milliseconds
coverage	100m	10m	10m-several km
Extension	Roaming enable	no	Yes
Data Rate	11Mbps	1Mbps	250Kbps
Security	SSID	64bit, 128bit	128 bit AES

***Note: Products listed in this catalog have 7 channels by default complied ZigBee Home Automation Profile, unless stated otherwise.**



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1 Low Power Consumption

In standby low power consumption mode, two AAA batteries can support one node for 6~24 months or longer. This is the extraordinary advantage of ZigBee. Comparatively, Bluetooth can work for couples of weeks, Wi-Fi can only work for several hours.

2 Flexible Coverage

In accordance with individual request, users can decide the transmission coverage. In general, the covered distance between two nodes is around 10~100 m, with RF power enhanced, the coverage can be increased to 1000m. Through the relay between routers and nodes, the coverage can go much farther.

3 Wireless Control

Control lighting switches, outlets, stereos, videos, air condition and even automatic rice cooker, etc.

4 High Capacity

With workable star, bus and mesh network structure, a main node controls several subsidiary nodes -65000 nodes max. Simultaneously, the main node can be managed from the last network nodes to form a wide network.

5 Internet Connection

Users can control and monitor the system from anywhere in the world.

6 High Expansion

The system is based on ZigBee HA profile, users can select preferable scheme to make it customized.

7 Time Setting

Make the best time setting for electric appliances to achieve power saving, cost saving and ensure safety.

8 Easy Installation

Easy install, connect and replace with your existing lighting switches and outlets.

What can Netvox do for you with our Wireless intelligent home system?

- ◆ At anywhere inside a house, you can deploy lighting equipments and HVAC system flexibly.
- ◆ Automatic control brings better management, convenience and safety.
- ◆ Reduce energy consumption.
- ◆ Installation and upgrade without fixing up a building or rewiring.
- ◆ Deployment and operation can be simply done by a remote
- ◆ Easily install wireless sensors to detect the changes where the sensors were placed.
- ◆ Any unusual conditions will trigger alarm and send notice
- ◆ Devices will send out warning when power is running low.
- ◆ Periodically inspect whether the devices enrolled in the network and work properly, if not, abnormal messages will be sent and notified.
- ◆ Can read switch devices' status (ON or OFF) , and send the message to remote end through internet, mobile phone service etc.
- ◆ Remotely control the enrolled devices from media as internet, mobile phone service etc.

Main functions are :



Home Security and Alarm



Home Care Management



Electric Appliances Control



Lighting Control



HVAC Control



Home Entertaining System Control



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ZigBee and ZigBee PRO

ZigBee PRO was completed in 2007. Comparing with ZigBee, ZigBee Pro has many advantages including efficient transmitting path, optimized device address search feature, sync-broadcasting feature, transmission quality management and data fragmentation mechanism.

ZigBee Pro standard not only inherited main features from its predecessor ZigBee standard but also has improved in features and offered backward compatibility. ZigBee std. feature set employed tree address assignment, AODV network routing, unicast, multicast, broadcast and security. In comparison ZigBee Pro employed random addressing which replaces tree addressing of ZigBee. Though it included one similar to AODV routing, ZigBee Pro provides a many to one source routing option. ZigBee Pro offers limiting broadcast addressing scheme and supports high level of security. All the products are based on the latest ZigBee Pro standard offering our customer with competitive solutions.



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Netvox Cloud-Based Smart Home System

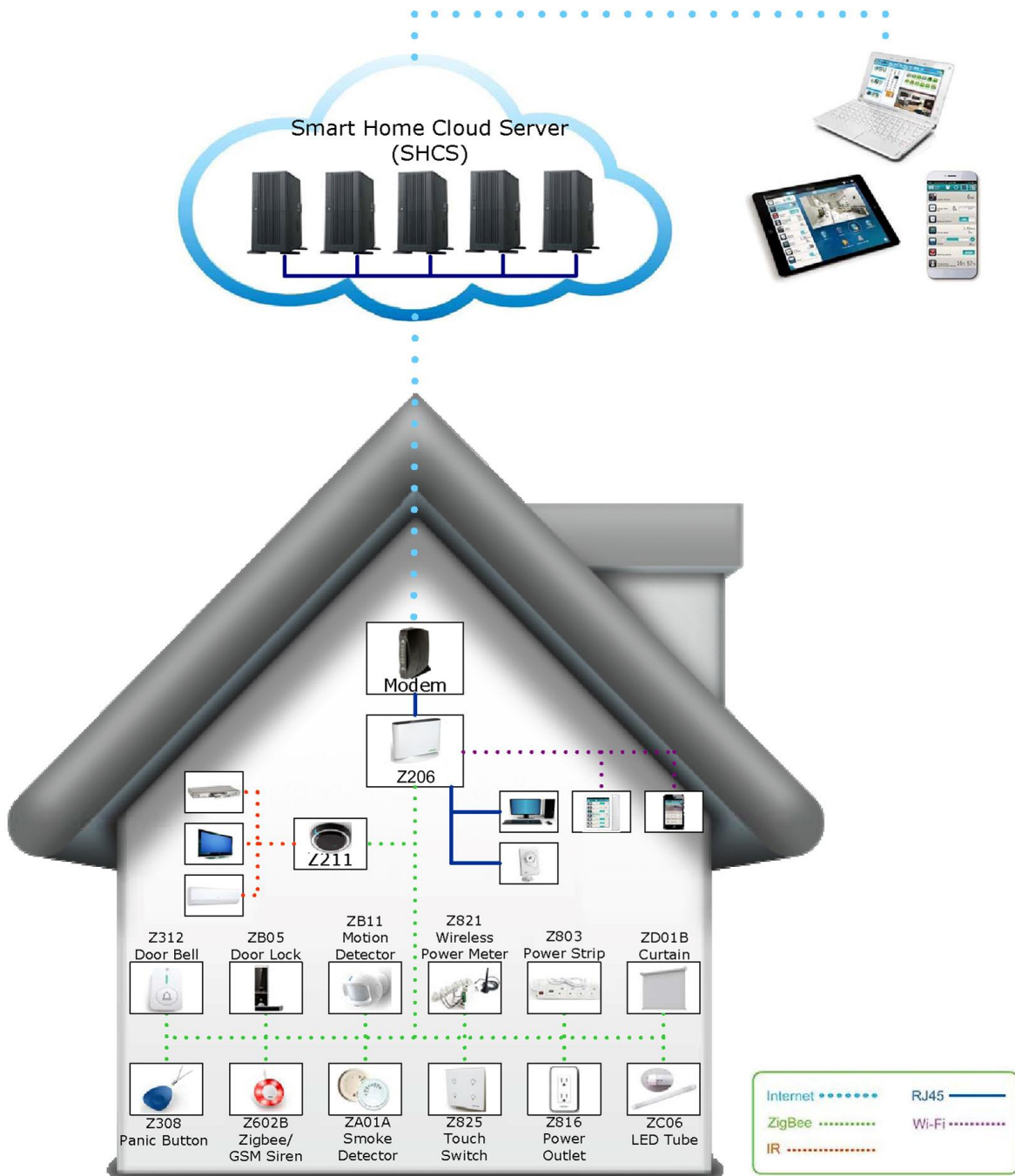
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Smart Home Controller Z206

- ZigBee & Wi-Fi connection
- Smart management
- Accessible from anywhere, anytime



ZigBee Device

- 100+ products
- Fully ZigBee HA compatible
- Low power consumption
- Easy installations



IP Cam

- Wireless IP Camera
- Remote Internet monitoring
- 2-way audio



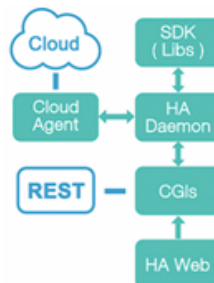
HA SHAP

- Smart Home Application Package
- HA Daemon/ SDK/ Cloud Agent included
- Integrated with your modem/ set top box



Smart Home System

- Create your own Smart Home service
- Build your own Cloud



REST API

- For building Cloud
- For app development
- Cost effective

REST

Netvox Cloud Service

- Smart monitoring
- Manage home/office anytime and anywhere



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APP

- iOS/ Android
- Portable controller
- Smart management



iPhone



ANDROID



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Infrared Motion Detector

ZB01A/B/C



ZB01 is an infrared motion detector based on ZigBee wireless technology. Through infrared acquisition. **ZB01A** is a security infrared motion detector. When motion is detected, it sends a message to the security center. **ZB01B** is a light switch. When the surrounding light intensity is low, the ZB01B sends a 30 second light on message. ZB01C contains features of **ZB01A** and **ZB01B** plus a temperature sensor which reports temperature at 3 minutes time interval and is configurable.

Product Model

ZB01A

Infrared motion sensor

ZB01B

Outdoor light control

ZB01C

Motion + light control+ temperature sense

Main Features

- Device type : IAS Zone / On Off Light Switch / Temperature Sensor
- Match up with CIE device
- Protocol based on ZigBee HA
- Two power selectable:12V DC power or CR123A battery
- Wide angle detection
- Indoor temperature induction

Technical Parameter

Power Supply:	2 x 3V CR123A batteries or DC 12V switching power supply
Consumption:	Tx 38mA / Rx 38mA
Protocol:	IEEE 802.15.4 / ZigBee Pro
Frequency:	2.4-2.4835 GHz
Detection Mode:	Passive Infrared
Detection Coverage:	4~12m@room temp, Horiz 120 deg, Ver 60deg
Installation Height:	2.5 meters
Initiation Time:	1 minute
Communication Range:	Up to 70 meters indoor
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	80mmx60mmx34mm

Infrared Occupancy Sensor

ZB01D/J



ZB01D/J is an infrared motion detector based on ZigBee wireless technology. Through infrared acquisition, it reports status change information to a target device. When it detects presence of human being within view range and forwards occupancy status to a target device for information acquisition.

Product Version

ZB01D: End point
ZB01J: Router

Main Features

- Device type: Occupancy Sensor
- Protocol based on ZigBee HA
- Two power selectable: 12V DC power or CR123A battery
- Wide angle detection

Technical Parameter

Power Supply:	2 x 3V CR123A batteries or DC 12V switching power supply
Consumption:	45mA
Protocol:	IEEE 802.15.4 / ZigBee Pro
Frequency:	2.4-2.4835 GHz
Detection Mode:	Passive Infrared
Detection Coverage:	4~12m@room temp, Horiz 120 deg, Ver 60 deg
Installation Height:	2 meters
Initiation Time:	1 minute
Communication Range:	Up to 210 meters indoor
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	80mm×60mm×34mm

Infrared Motion Sensor

ZB11A



ZB11A is an infrared motion detector based on ZigBee wireless technology. ZB11A acts as an End Device in the network. It does not perform permit-join function as a coordinator or a router for other devices to join the network. When ZB11A detects a movement, it reports the message to the network for specific task.

Main Features

- Device type: IAS Zone
- Match up with CIE device
- Protocol based on ZigBee HA V1.1 or V1.2
- Wide angle detection
- Simple operation and device configuration

Technical Parameter	
Power Supply:	ZB11A: 2 x ER14505 3.6V AA batteries ZB11A1: 2 x 1.5V AA battery
Consumption:	Operating: Up to 45mA Standby: Up to 100uA
Protocol:	IEEE 802.15.4/ ZigBee Pro
Frequency:	2.4-2.4835 GHz
Detection Mode:	Passive Infrared
Detection Coverage:	Hor. 110°; Ver. 60°
Installation Height:	2~2.2 meters
Communication Range:	Up to 120 meters (line of sight)
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	125mmx80mmx89mm
Battery Life:	5 years*

*Battery life may vary based on operating conditions.

Motion On-Off Light Switch

ZB11B

ZB11B is an infrared motion On-Off light switch based on ZigBee wireless technology. ZB11B acts as an End Device in the network. When ZB11B detects movement, it sends the command based on how bright the location is. Users can assign specific ON/OFF task to the binding devices according to different command. When ZB11B detects the movement, for example, and the surrounding light intensity is low, it reports a light on message.

Main Features

- Device type: On/Off Light Switch
- Protocol based on ZigBee HA V1.1 or V1.2
- Power supply: 2 x ER14505 3.6V AA batteries
- Equipped with light sensor
- Simple operation and device configuration

	Technical Parameter
Power Supply:	2 x ER14505 3.6V AA batteries
Consumption:	Operating: Up to 45mA Standby: Up to 100uA
Protocol:	IEEE 802.15.4/ ZigBee Pro
Frequency:	2.4-2.4835 GHz
Detection Mode:	Passive Infrared
Detection Coverage:	Hor. 110°; Ver. 60°
Installation Height:	2~2.2 meters
Communication Range:	Up to 120 meters (line of sight)
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	125mm×80mm×89mm
Battery Life:	5 years*

**Battery life may vary based on operating conditions.*

Motion On-Off Light Switch with Temperature Sensor

ZB11C

ZB11C is an infrared motion On-Off light switch with the temperature sensor. Users can assign specific ON/OFF task to the binding devices according to different command. When ZB11C detects the movement, for example, and the surrounding light intensity is low, it reports a light on message. It also reports temperature periodically, and the time interval is configurable.



Main Features

- Device type: IAS Zone/ On-Off Light Switch/ Temperature Sensor
- Match up with CIE device
- Protocol based on ZigBee HA V1.1 or V1.2
- Power supply: 2 x ER14505 3.6V AA batteries
- Equipped with light sensor
- Simple operation and device configuration

Technical Parameter	
Power Supply:	2 x ER14505 3.6V AA batteries
Consumption:	Operating: Up to 45mA Standby: Up to 100uA
Protocol:	IEEE 802.15.4/ ZigBee Pro
Frequency:	2.4-2.4835 GHz
Detection Mode:	Passive Infrared
Detection Coverage:	Hor. 110°; Ver. 60°
Temperature Sensing Range:	0~60°C
Installation Height:	2~2.2 meters
Communication Range:	Up to 120 meters (line of sight)
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	125mm×80mm×89mm
Battery Life:	3 years*

**Battery life may vary based on operating conditions.*

Infrared Occupancy Sensor

ZB11D



ZB11D is an infrared motion detector based on ZigBee wireless technology. Through infrared acquisition, it reports status change information to a target device. When ZB11D detects the presence of human beings or animals, it reports the message to the network

Main Features

- Device type: Occupancy Sensor
- Protocol based on ZigBee HA V1.1 or V1.2
- Power supply: 2 x ER14505 3.6V AA batteries
- Wide angle detection
- Simple operation and device configuration

Technical Parameter	
Power Supply:	2 x ER14505 3.6V AA batteries
Consumption:	Operating: Up to 45mA Standby: Up to 100uA
Protocol:	IEEE 802.15.4/ ZigBee Pro
Frequency:	2.4-2.4835 GHz
Detection Coverage:	Hor. 110°; Ver. 60°
Installation Height:	2~2.2 meters
Communication Range:	Up to 120 meters (line of sight)
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	125mm×80mm×89mm
Battery Life:	5 years*
*Battery life may vary based on operating conditions.	

Motion Detector

ZB11E/ZB11E1



ZB11E is an infrared motion detector based on ZigBee wireless technology. Through infrared acquisition, it reports status change information to a target device. When ZB11E detects the presence of human beings or animals, it reports the message to the network

Main Features

- Protocol based on IEEE802.15.4 / Zigbee ProTM
- 2.4GHz ISM band transceiver ; total 16 channels
- Up to 120 meters wireless transmission range in non obstacle space

Technical Parameter

Power Supply:	ZB11E: 2 x ER14505 3.6V AA batteries ZB11E1: 2 x 1.5V AA battery
Consumption:	Operating: Up to 45mA Standby: Up to 100uA
Protocol:	IEEE 802.15.4/ ZigBee Pro
Frequency:	2.4-2.4835 GHz
Detection Mode:	Passive Infrared
Detection Coverage:	Hor. 110°; Ver. 60°
Installation Height:	2~2.2 meters
Communication Range:	Up to 120 meters (line of sight)
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	125mm×80mm×89mm

**Battery life may vary based on operating conditions.*

Window Sensor

Z302A



Z302A is a wireless window contact sensor based on ZigBee Pro.

The main unit and the magnetic contact can be each installed on window side. When the window is opened, Z302A will send alarm message to the control center.

Z302A utilizes the latest ultra-low power consumption technology and requires no wiring. It requires just one button battery to support its operation for up to 2 years.

Main Features

- Device type : IAS Zone
- Match up with CIE alarm devices
- Easy to install with wireless deployment, easy configuration and usage
- The smallest sensor in the world
- Environmental friendly, a button battery lasts for two years.
- Protocol based on ZigBee HA

Technical Parameter

Power Supply:	3V CR2450 button cell battery
Communication Range:	Up to 100 meters
Protocol:	IEEE802.15.4 / ZigBee Pro
Frequency:	2.4-2.4835 GHz
Consumption:	@receiving mode 38 mA @transmitting mode 38 mA @standby mode 1.2 uA
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Reed Switch Trigger	@close : >20mm @open : <15mm
Product Dimension:	Body 55.8mm × 29.8mm × 13.8mm Magnetic 32.5mm × 11.9mm × 10.5mm

Light Sensor Switch

Z302B



Z302B is a light sensor switch based on ZigBee Wireless Communication Technology. According to the light intensity around, it sends on/off instruction to the paired lighting devices in the network. Z302B has the merits of easy installation and low power consumption, it does not need any wiring and is equipped with the newest energy saving technology. A cell battery can last for months. Z302B has excellent compatibility that meets IEEE 802.15.4 ZigBee HA Profile. It is suitable for any network in ZigBee HA protocol.



Main Features

- Device type : ON/OFF Switch
- Photo sensor equipped
- Protocol based on ZigBee HA
- CR2450 button battery operated
- Energy Saving application

Technical Parameters

Power Supply:	3V CR2450 button battery
Communication Range:	Up to 100 meters indoor
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Frequency:	2.4-2.4835 GHz
Consumption:	@receiving mode 38mA @transmitting mode 38mA
Product Dimension:	55.8mm × 29.8mm × 13.8mm

Wireless Window/Intrusion Sensor with an Extended Contact Sensor

Z302C



Z302C is a two in one wireless window sensor based on ZigBee HA profile standard. As it joined in the network, it can detect any illegal door-open detection and then send the alarm message to the siren device to trigger the alarm system.



Main Features

- Device type : IAS Zone
- Match up with CIE alarm devices
- Protocol based on ZigBee HA
- The smallest sensor in the world
- A button battery can support the operation for one year
- Easy installation
- Consist of two magnet switch sensors
- Automatically binds with control device and send alarm message when it is triggered
- Easy configuration and usage

Technical Parameter	
Power Supply:	3V CR2450 button battery
Communication Range:	Up to 100 meters indoor
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Frequency:	2.4-2.4835 GHz
Consumption:	@receiving mode 38mA @transmitting mode 38mA @standby mode 3uA
Normal Open Type Reed Switch:	@Close : >20mm @Open : <15mm
Product Dimension:	Main unit: 55.8mm x 25.8mm x 13.8mm Magnet: 32.5mm x 11.9mm x 10.5mm

Panic Button

Z302D



Z302D acts as an IAS Zone device for emergency use. It is for children or the elders to ask for urgent assistance, simply push the red button and Z302D will send the alarm message to the command center. CIE command center will then send out alarm sound or lighting alert for immediate help.

Z302D is based on ZigBee protocol and suitable for ZigBee HA Profile network.

Main Features

- Device type : IAS Zone
- Match up with CIE alarm devices
- Protocol based on ZigBee HA
- Battery lifetime can stay long
- Panic button
- Application for the elderly nursing
- Compatible with ZigBee Smart Home profile

Technical Parameter

Power Supply:	3V CR2450 button battery
Communication Range:	Up to 100 meters indoor
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Frequency:	2.4-2.4835 GHz
Consumption:	@receiving mode 38mA @transmitting mode 38mA @standby mode 1.0uA
Product Dimension:	55.8mm x 29.8mm x 13.8mm

Asset Tag

Z302E



Z302E is a asset tag for security based on ZigBee HA standard. It is an asset tag equipped with light and movement sensor. Z302E can be attached to goods and when the goods was moved or removed from the dark to the light, Z302E will be triggered and send alarm message to the CIE command center and CIE will send out alert notification to the user to ensure the safety of users' property.

Z302E applies the latest node technology and a button battery can support its operation for couples of months. It' s based on ZigBee HA protocol and works with ZigBee HA profile network.

Main Features

- Device type : IAS Zone
- Match up with CIE alarm device
- Installed with light and movement sensors
- Easy installation : wireless communication, no wiring is required.
- Exquisite : the smallest wireless sensor in the world
- Energy saving : simply a button battery can support its operation for couples of months
- Protocol based on ZigBee HA

Technical Parameter

Power Supply:	3V CR2450 button battery
Communication Range:	Up to 100 meters indoor
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Frequency:	2.4-2.4835 GHz
Consumption:	@transmitting mode 38mA @receiving mode 38mA @standby mode 8.0uA
Product Dimension:	55.8mm x 29.8mm x 13.8mm

Environmental Monitoring

Light Sensor

Z302G



Z302G is a light sensor built based on ZigBee Wireless Communication Technology. Z302G sends light intensity value to a receiver or light information display device.

Z302G has the merits of easy installation and low power consumption. It does not need any wiring. It is equipped with the latest energy saving technology. A button battery can last for months. Z302G has excellent compatibility that meets IEEE 802.15.4 ZigBee HA Profile. It is suitable for ZigBee HA Profile network.



Main Features

- Device type : Light Sensor
- Photo sensor equipped
- Protocol based on ZigBee HA
- CR2450 button battery operated
- Energy Saving application

Technical Parameters

Power Supply:	3V CR2450 button battery
Communication Range:	Up to 70 meters indoor
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Frequency:	2.4-2.4835 GHz
Consumption:	@receiving mode 38mA @transmitting mode 38mA
Product Dimension:	55.8mm × 29.8mm × 13.8mm

Light Sensing Dimmer Switch

Z302H



Z302H is a light sensing level switch based on ZigBee Wireless Communication Technology.

Z302H sends ON/OFF & Level control signal according to the light intensity around it to the paired lighting devices in ZigBee network to maintain light intensity within the room.

Z302H has the merits of easy installation and low power consumption. It does not need any wiring. It is equipped with the latest energy saving technology. A button battery can last for months. Z302H is based on ZigBee protocol. It is suitable for ZigBee HA Profile network.



Main Features

- Device type : Dimmer Switch
- Photo sensor equipped
- Protocol based on ZigBee HA
- CR2450 button battery operated
- Energy Saving application

Technical Parameters

Power Supply:	3V CR2450 button battery
Communication Range:	Up to 70 meters indoor
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Frequency:	2.4-2.4835 GHz
Consumption:	@receiving mode 38mA @transmitting mode 38mA
Product Dimension:	55.8mm × 29.8mm × 13.8mm

Window/ Door Sensor

Z302J



Z302J is a wireless window contact sensor on ZigBee Pro.

Z302J has the feature of a door sensor plus it can be a light switch when door is opened if paired with power device, i.e. Z800 and Z815 series. User may use it for either one of the two purposes or both together.

Z302J utilizes the latest ultra-low power consumption technology and requires no wiring. It requires just one button battery to support its operation for up to 2 years.

Main Features

- Device type : IAS Zone & On/Off Switch
- Match up with CIE alarm devices
- Easy to install with wireless deployment, easy configuration and usage
- The smallest sensor in the world
- Environmental friendly, a button battery lasts for two years.
- Protocol based on ZigBee HA

Technical Parameter

Power Supply:	3V CR2450 button cell battery
Communication Range:	Up to 180 meters
Protocol:	IEEE802.15.4 / ZigBee Pro
Frequency:	2.4-2.4835 GHz
Consumption:	@receiving mode 28 mA @transmitting mode 43 mA @standby mode 2 uA
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Reed Switch Trigger	@close : >20mm @open : <15mm
Product Dimension:	Body 55.8mm x 29.8mm x 13.8mm Magnetic 43mm x 13mm x 12mm

Emergency button/Location TracerA201 recharging cradle

Z306D/A201



Z306D is an inductive rechargeable emergency button. It can be worn on the wrist. It is designed for elderly care application. In the event of emergency, the elderly pushes a button on the Z306D device. Upon receive this message, the security system (CIE) manages the alert message and instructs siren or strobe light to give a sign of warning. The care may keep track of the elder’ s current location to attend.

The in-built 3D accelerometer along with the location engine enables Z306D being the best choice for locating patients in hospital and nursing home. The device is powered using a rechargeable lithium battery. Based on ZigBee mesh network, it ensures stable message deliverance .

A201 is the inductive battery recharging cradle.

Main Features

- Device type : IAS Zone
- Protocol based on ZigBee HA
- Match up with CIE alarm device
- Inductive battery recharging cradle
- Elderly care application

Technical Parameter

Power Supply:	3.7V Lithium ion rechargeable battery
Communication Range:	Up to 70 meters indoor
Operating Ambient:	Temperature -10~50℃ Humidity max. 45~75%RH
Frequency:	2.4-2.4835 GHz
Consumption:	@transmitting mode 38mA @receiving mode 38mA @standby mode 8.0uA
Product Dimension:	55.8mm x 29.8mm x 13.8mm

Fall Sensor with A201 recharging cradle

Z307/A201



Z307 is an inductive rechargeable fall sensor. It is designed for home care application. The in-built 3D accelerometer allows Z307 to detect body falling and report fall events to the security central (CIE) . Upon receive this message, the CIE instructs siren and the immediate location message will be sent to the log display. Based on ZigBee mesh network, it ensures stable message deliverance.

A201 is the inductive battery recharging cradle.

Main Features

- Device type : IAS Zone
- Protocol based on ZigBee HA
- Match up with CIE alarm device
- Exquisite: the smallest wireless sensor in the world
- Inductive battery recharging cradle.
- Elderly care application

Technical Parameter

Power Supply:	3.7V Lithium ion rechargeable battery
Communication Range:	Up to 70 meters indoor
Operating Ambient:	Temperature -10~50℃ Humidity max. 45~75%RH
Frequency/Protocol:	2.4-2.4835 GHz/ IEEE 802.15.4 /ZigBee Pro
Consumption:	@transmitting mode 38mA @receiving mode 38mA @standby mode 1.0uA
Charging condition:	between 0 to 45℃ when charging
Product Dimension:	52mm x 34mm x 21mm; charger 61x51x36

Wireless Wearable Presence Tag with Emergency Button

Z308



Z308, a wearable presence tag, acts as an IAS device for minor children/aged-care use. It is an ideal product to detect one’ s presence within/ out of the network coverage for safety purpose. Z308 periodically sends presence/absence report to keep a close watch on those who wear it. Z308 also works as an emergency button. When users ask for urgent assistance, simply push the button, and Z308 will send the alarm message to the command center. The Warning Device will send out alarm sound or lighting alert for immediate help.

Main Features

- Device type: IAS Zone
- Match up with CIE alarm devices
- Protocol based on ZigBee HA V1.1 or V1.2
- Battery-power can stay long lifetime
- Application for the elderly nursing
- Easy installation and configuration

Technical Parameter

Power Supply:	1 x 3V CR2450 button battery
Consumption:	Tx: Up to 33mA Rx: Up to 28mA Standby: 1.3uA
Communication Range:	Up to 80 meters (line of sight)
Protocol:	IEEE802.15.4
Frequency:	2.4-2.4835 GHz
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Default reporting interval:	5 minutes
Product Dimension:	45mm x 39mm x 15 mm
Battery Life:	2 years*
*Battery life may vary based on operating conditions.	

Wireless Window Sensor

Z311A



Z311A is a window contact sensor based on ZigBee wireless technology. The main unit and the magnetic contact can be each installed on window side. When the window is opened, Z311A sends alarm message to the control center. Z311A utilizes the latest ultra-low power consumption technology and requires no wiring. It requires just button batteries to support its operation.

Main Features

- Device type: IAS Zone
- Match up with CIE alarm devices
- Protocol based on ZigBee HA V1.1 or V1.2
- Power supply: 2 x CR2450 button batteries
- Simple operation and device configuration

Technical Parameter

Power Supply:	2 x CR2450 3V button batteries
Communication Range:	Up to 100 meters (line of sight)
Protocol:	IEEE802.15.4/ ZigBee Pro
Frequency:	2.4-2.4835 GHz
Consumption:	@receiving mode 28mA @transmitting mode 43mA @standby mode 1.0uA
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	Body 57mm × 35mm × 15mm Magnetic 43mm × 13mm × 12mm
Battery Life:	6 years*

**Battery life may vary based on operating conditions*

Wireless Light Sensor Switch

Z311B



Z311B is a light sensor switch based on ZigBee Wireless Communication Technology. According to the light intensity around, it sends ON/OFF command to the paired lighting devices in the network. Z311B has the merits of easy installation and low power consumption. It does not need any wiring and is equipped with the newest energy saving technology. It requires just button batteries to support its operation.

Main Features

- Device type: ON/OFF Switch
- Light sensor equipped
- Protocol based on ZigBee HA V1.1 or V1.2
- Power supply: 2 x CR2450 button batteries
- Simple operation and device configuration

Technical Parameters

Power Supply:	2 x CR2450 3V button batteries
Communication Range:	Up to 210 meters (line of sight)
Protocol:	IEEE802.15.4/ ZigBee Pro
Frequency:	2.4-2.4835 GHz
Consumption:	@receiving mode 28mA @transmitting mode 43mA @standby mode 1uA
Sensing Level Range:	1~3000 lux
Sensing Accuracy:	±5%
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	Body 57mm × 35mm × 15mm
Battery Life:	6 years*

**Battery life may vary based on operating conditions.*

Wireless Window/Intrusion Sensor with an Extended Contact Sensor

Z311C



Z311C is a two in one wireless window sensor based on ZigBee Wireless Technology. As it joined in the network, it can sense any illegal door-open detection and send the alarm message to the alarm system to trigger the siren device.

Main Features

- Device type: IAS Zone
- Match up with CIE alarm devices
- Protocol based on ZigBee HA V1.1 or V1.2
- Power supply: 2 x CR2450 button batteries
- Consist of two magnet switch sensors
- Automatically binds with ZigBee control device and sends alarm message when it is triggered
- Simple operation and device configuration

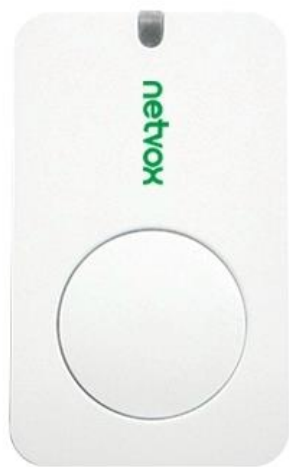
Technical Parameter

Power Supply:	2 x CR2450 3V button batteries
Communication Range:	Up to 100 meters (line of sight)
Protocol:	IEEE802.15.4
Frequency:	2.4-2.4835 GHz
Consumption:	@receiving mode 28mA @transmitting mode 43mA @standby mode 4.9uA
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Product Dimension:	Body 57mm x 35mm x 15mm Magnet 43mm x 13mm x 12mm
Battery Life:	6 years*

**Battery life may vary based on operating conditions.*

Wireless Asset Tag

Z311E



Z311E is a asset tag for security based on ZigBee HA standard. It is equipped with light and movement sensor. Z311E can be attached to the goods. When the goods was moved or removed from the dark to the light, Z311E will be triggered and send alarm message to the CIE command center. The CIE device will send out alert notification to the user to ensure the safety for users' property.

Z311E applies the latest node technology and the button batteries can support its operation for couples of months. It' s based on ZigBee protocol and works with ZigBee HA profile network.

Main Features

- Device type : IAS Zone
- Match up with CIE alarm device
- Protocol based on ZigBee HA V1.1 or V1.2
- Power supply: 2 x CR2450 button batteries
- Simple operation and device configuration

Technical Parameter

Power Supply:	2 x CR2450 3V button batteries
Communication Range:	Up to 100 meters (line of sight)
Protocol:	IEEE802.15.4/ ZigBee Pro
Frequency:	2.4-2.4835 GHz
Consumption:	@receiving mode 28mA @transmitting mode 43mA @standby mode 7.6uA
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Product Dimension:	57mm × 35mm × 15mm
Battery Life:	6 years*

**Battery life may vary based on operating conditions*

Wireless Light Sensor

Z311G



Z311G is a light sensor integrated with ZigBee wireless technology. Z311G sends light intensity value to a receiver or light information display device. Z311G has the merits of easy installation and low power consumption. It does not need any wiring and is equipped with the latest energy saving technology. It requires just button batteries to support its operation.

Main Features

- Device type: Light Sensor
- Light sensor equipped
- Protocol based on ZigBee HA V1.1 or V1.2
- Power supply: 2 x CR2450 button batteries
- Simple operation and device configuration
- Energy Saving application

Technical Parameters

Power Supply:	2 x CR2450 3V button batteries
Communication Range:	Up to 70 meters (line of sight)
Protocol:	IEEE802.15.4
Frequency:	2.4-2.4835 GHz
Consumption:	@receiving mode 28mA @transmitting mode 43mA @standby mode 0.8uA
Sensing Level Range:	1~3000 lux
Sensing Accuracy:	±5%
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Product Dimension:	Body 57mm x 35mm x 15mm
Battery Life:	6 years*

**Battery life may vary based on operating conditions.*

Light Sensing Dimmer Switch

Z311H



Z311H is a light sensing level switch based on ZigBee Wireless Technology. Z311H sends ON/OFF & Level control signal according to the surrounding light intensity around it to the paired lighting devices to maintain brightness in the room. Z311H has the merits of easy installation and low power consumption. It does not need any wiring and is equipped with the latest energy saving technology. It requires just button batteries to support its operation.

Main Features

- Device type: Dimmer Switch
- Light sensor equipped
- Protocol based on ZigBee HA V1.1 or V1.2
- Power supply: 2 x CR2450 button batteries
- Simple operation and device configuration
- Energy Saving application

Technical Parameters

Power Supply:	2 x CR2450 3V button batteries
Communication Range:	Up to 70 meters (line of sight)
Protocol:	IEEE802.15.4
Frequency:	2.4-2.4835 GHz
Consumption:	@receiving mode 28mA @transmitting mode 43mA @standby mode 0.8uA
Sensing Level Range:	1~3000 lux
Sensing Accuracy:	±5%
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Product Dimension:	Body 57mm × 35mm × 15mm
Battery Life:	6 years*

*Battery life may vary based on operating conditions.

Window/ Door Sensor

Z311J



Netvox Z311J, a Window Door Contact Sensor, acts as an End Device in ZigBee network. It does not perform permit-join function as a coordinator or a router for other devices to join the network. Z311J is featured to play a role of the sensor (Zone device) in the ZigBee security system. It is installed for being a window/door opening detector. Z311J will notify the central security unit, CIE (Control and Indicating Equipment) device, to send commands to a siren device to trigger an alarm while the window/door is opened. When the window/door has been closed, Z311J will send the normal-condition report to the CIE device. Z311J also features On/Off switch. When the window/door is opened/ closed, Z311J sends the On/Off command to the ZigBee network to turn the device on/off.

Main Features

- Device type : IAS Zone & On/Off Switch
- Match up with CIE alarm device
- Protocol based on ZigBee HA V1.1 or V1.2
- Power supply: 2 x CR2450 button batteries
- Simple operation and device configuration

Technical Parameter

Power Supply:	2 x CR2450 3V button batteries
Communication Range:	Up to 210 meters (line of sight)
Protocol:	IEEE802.15.4/ ZigBee Pro
Frequency:	2.4-2.4835 GHz
Consumption:	@receiving mode 28mA @transmitting mode 43mA @standby mode 3.5uA
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	57mm x 35mm x 15mm
Battery Life:	6 years*

**Battery life may vary based on operating conditions*

Wireless Water Sensor

Z311W



Z311W is attached with the water sensor for flood detecting and reporting. When flood is detected, Z311W sends the warning message to its enrolled CIE (a security central) device in the network to notify the user.

Z311W is based on ZigBee Pro. It communicates with the coordinator, router, and end device in the network.

Main Features

- Device type : IAS Zone
- Match up with CIE alarm device
- Protocol based on ZigBee HA V1.1 or V1.2
- Power supply: 2 x CR2450 button batteries
- Simple operation and device configuration

Technical Parameter

Power Supply:	2 x CR2450 3V button batteries
Communication Range:	Up to 210 meters (line of sight)
Protocol:	IEEE802.15.4/ ZigBee Pro
Frequency:	2.4-2.4835 GHz
Consumption:	@receiving mode 28mA @transmitting mode 43mA @standby mode 1uA
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	57mm x 35mm x 15mm
Battery Life:	6 years*

**Battery life may vary based on operating conditions*

Wireless Infrared Motion Sensor

Z311S



Z311S is an active infrared intrusion sensor. While connected to a quad active infrared detector, a moving object can be detected in alarming zone. It is integrated with 2.4G wireless transceiver module allowing wireless monitoring and surveillance functions. Widely used in many areas such as urban security, residential, factories, companies, schools, families, villas, warehouses and so on.

Main Features

- Device type: IAS ZONE
- Protocol based on IEEE802.15.4 / Zigbee Pro™
- Simple operation and device configuration
- Two dry contact inputs

Technical Parameter

Power Supply:	2 x CR2450 3V button batteries
Communication Range:	Up to 210 meters (line of sight)
Protocol:	IEEE802.15.4/ ZigBee Pro
Frequency:	2.4GHz ISM band transceiver; total 16 channels
Consumption:	@receiving mode 28mA @transmitting mode 43mA @standby mode 4.9uA
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Product Dimension(ZIGBEE Device):	57mm × 35mm × 15mm
Battery Life:	6 years*

Wireless Inflammable Gas Detector

ZA01A/B/C/D



ZA01 series can detect the concentration of the gas in the air and when it reaches the preset value, the detector will send out alarm . Still, the detectors are equipped with temperature sensor for detecting the temperature in the area. When the heat exceeds 60℃, it will send out alarm messages to the enrolled CIE (Control and Indicating Equipment) device.

Detection Type

- ZA01A** NH3, NO2, Ethanol (EtOH), SO2..
- ZA01B** Methane, Biogas..
- ZA01C** CO
- ZA01D** Liquid Petroleum (Propane, butane etc)

Main Features

- Device type : IAS Zone
- ZigBee type router
- Equipped temperature sensor
- Match up with CIE alarm device
- Wireless switch on/off alarm sound
- Protocol based on ZigBee HA
- LED will flash when it is triggered
- When it is triggered, the enrolled ZA10 gas keeper will close the gas valve automatically.
- Works with Z-A10 Gas Keeper (optional)

Technical Parameter

Power Supply:	100~240 V AC
Protocol:	IEEE 802.15.4 / ZigBee Pro
Frequency:	2.4-2.4835 GHz
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Communication Range:	Up to 70 meters (line of sight)
Status Display:	LED
Siren Volume:	85dB at 1 meter
Consumption:	@receiving mode 85mA/45mA @transmitting mode 85mA/45mA
Product dimension:	92mm × 50mm

Wireless Inflammable Gas Detector

ZA02A/B/C/D/E/F



ZA02 series are highly reliable IAS Zone devices based on ZigBee HA profile standard. They detect gas and send out alarm message to the enrolled CIE (Control and Indicating Equipment) device. It is also equipped with temperature sensor for detecting the temperature in the area. When the heat exceeds 60°C, it will send out alarm messages to the enrolled CIE system.

Model	Detection Type	Power Supply	ZigBee Type
ZA02A	NH3, NO2, Ethanol (EtOH), SO2..	3V CR17450	End Device
ZA02B	Methane, Biogas..	100~240V AC	Router
ZA02C	CO	2 x 1.5V AAA	End Device
ZA02D	Liquid Petroleum (Propane, butane etc)	100~240V AC	Router
ZA02E	NH3, NO2, Ethanol (EtOH), SO2..	100~240V AC	Router
ZA02F	NH3, NO2, Ethanol (EtOH), SO2..	12V DC	Router

Main Features

- Device type : IAS Zone
- Equipped router with temperature sensor
- Match up with CIE alarm devices
- Wireless switch on/off siren sound
- Exquisite
- Protocol based on ZigBee HA
- LED will flash when it' s triggered
- (optional) works with Z-A10 Gas Keeper

Technical Parameter

Protocol:	IEEE 802.15.4 / ZigBee Pro
Frequency:	2.4-2.4835 GHz
Operating Ambient:	Temperature -10~50°C Humidity 30%~95%RH
Communication Range:	Up to 210 meters
Status Display:	LED indicators
Siren Volume:	85dB at 3 meters
Product dimension:	106mm x 36mm

Wireless Gas / Water Keeper

ZA10



ZA10 is a wireless intellectual gas keeper based on ZigBee and works with gas detectors in the network. When the security system detects fire or smoke alarm, ZA10 will close the gas valve automatically to avoid the leak of gas and ensure the users' safety. ZA10 does not need the security system when the user simply treat it as a water keeper. Z-A10 works in wireless communication and required no wiring.

Main Features

- Device type : on/off output
- Installed Router type
- Match up with CIE alarm device when act as gas keeper
- Innovative and elegant design
- Protocol based on ZigBee HA
- Automatically close the gas valve when it' s triggered
- Waterproof and can be used to open the hydrant
- 12V DC power supply
- Can be switched manually while system failure or no power supply

Technical Parameter

Power Supply:	12V DC power supply
Communication Range:	Up to 120 meters (line of sight)
Frequency:	2.4-2.4835 GHz
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Consumption:	<530mA Max. @standby <48mA
Protocol:	IEEE 802.15.4 / ZigBee Pro
Product Dimension:	154mm × 66mm × 129mm

Wireless Emergency Push Button

ZB02I



ZB02I acts as a wall-type emergency push button for urgent situation. It is for children’ s or elder’ s safety. When they ask for urgent assistance, simply push the button, and ZB02I will send the alarm message to the command center. The Warning Device will send out alarm sound or lighting alert for immediate help. ZB02I is based on ZigBee protocol and suitable for ZigBee HA Profile network.

Main Features

- Device type: IAS Zone
- Match up with CIE alarm devices
- Protocol based on ZigBee HA V1.1 or V1.2
- Battery-power can stay long lifetime
- Application for the elderly nursing
- Easy installation and configuration

Technical Parameter

Power Supply:	2 x AAA batteries
Consumption:	Operating: Up to 40mA Standby: Up to 1uA
Communication Range:	Up to 200 meters (line of sight)
Protocol:	IEEE802.15.4
Frequency:	2.4-2.4835 GHz
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	82 x 82 x 15 mm

Siren

Z602A



Z602A is a siren used in emergency case and based on ZigBee HA standard. It can join the ZigBee network and register itself into the security center (IAS CIE device).

Once it receives the alarm message from the IAS CIE device, it will generate both the alert sound and the visible LED indicator. There are four different sounds: fire alert, emergency alert, burglar alert, and doorbell sounds.

Main Features

- Device type: IAS Warning Device
- Protocol based on ZigBee HA V1.1 or V1.2
- Match up with CIE alarm device
- Four different alert sounds
- Can be configured as a doorbell
- Built-in binding key

Technical Parameter

Power Supply:	DC 12V
Operating Consumption:	DC 12V: 190 mA
ISM Bands:	2.4 ~ 2.4835 GHz
Alarm Volume:	≥80dB (within 3 meters)
Wireless Distance:	Up to 210 meters (line of sight)
Operating Ambient :	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	85mm(D)× 52mm(H)

Siren with GSM Module

Z602B



Z602B is a siren used in emergency case and based on ZigBee HA standard. It can join the ZigBee network and register itself into the security center (IAS CIE device).

Once it receives the alarm message, it will generate both the alert sound and the visible LED indicator. There are four different sounds: fire alert, emergency alert, burglar alert, and doorbell sounds. Z602B is also equipped with GSM module. When the alert occurs, it sends the SMS and calls users for the notification.

Main Features

- Device type: IAS Warning Device
- Protocol based on ZigBee HA V1.1 or V1.2
- Match up with CIE alarm device
- Four different alert sounds
- Can be configured as a doorbell
- Built-in binding key
- GSM feature

Technical Parameter

Power Supply:	DC 12V
Operating Consumption:	DC 12V: 190 mA
ISM Bands:	2.4 ~ 2.4835 GHz
Alarm Volume:	≥80dB (within 3 meters)
Wireless Distance:	Up to 210 meters (line of sight)
Operating Ambient :	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	85mm(D)× 52mm(H)

Door Bell

Z312



Z312, a Door Bell device, acts as an End Device in ZigBee network. It does not perform permit-join function as a coordinator or a router for other devices to join the network. Z312 can be logically bound with a ZigBee Warning Device, like Z602A/B, to work as a door bell button. It has a ultra low power consumption during stand-by and supports low battery notification. Z312 is a wireless device without the need of cabling for easy installation.

Main Features

- Device type: IAS Ancillary Control Equipment
- Protocol based on ZigBee HA V1.1 or V1.2
- Power supply: 2 x CR2450 button cell batteries
- Up to 100 meters wireless distance
- Exquisite and elegant design
- Can be placed on the table or the wall
- Low power consumption
- Simple operation and device configuration

Technical Parameter

Power Supply:	2 x CR2450 button cell batteries
Consumption:	Operating: Up to 38mA Standby: Up to 1uA
Protocol:	IEEE 802.15.4
Frequency:	2.4-2.4835 GHz
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Battery Life:	6 years*
Product Dimension:	57mmx35mmx15mm

**Battery life may vary based on operating conditions*

Wall Switch

ZB02A/B/C



ZB02 is wireless wall switch series. They can be paired with ZigBee lighting devices. It possesses the features of low power consumption in standby mode and low power inspection. It is based on ZigBee HA profile and works with any HA profile network.

Z-B02 comes with three types: one, two and three gang switch.

ZB02 works wirelessly requires no wiring. Simply joins in the network, pair with the other On/Off devices and remote control them by toggling.

Product models

ZB02A: single gang

ZB02B: two gang

ZB02C: three gang

Main Features

- Device type : On/Off Light Switch
- Exquisite and elegant design
- Protocol based on ZigBee HA
- Can be placed on the table or in-wall installation
- Runs on 2 X AAA batteries
- Low power notification
- Three types: one key, two keys and three keys

Technical Parameters

Power Supply:	3V (2 AAA batteries)
Communication Range:	Up to 70 meters (line of sight)
Frequency:	2.4-2.4835 GHz
Operating Ambient	Humidity max. 95%RH Temperature -10~50°C
Protocol:	IEEE 802.15.4 / ZigBee Pro
Consumption:	@standby mode < 2uA @receiving mode 35mA @transmitting mode 35mA
Product dimension:	81mm × 81mm × 11mm

Wireless Door Bell

ZB02E



ZBo2E is a wireless doorbell. It can be paired with the warning device of the ZigBee security network to trigger doorbell sound when pressed. It has a ultra low power consumption during stand-by and supports low battery notification. ZBo2E is a wireless device without the need of cabling for easy installation.

Main Features

- Device type : IAS Ancillary Control Equipment
- Exquisite and elegant design
- Protocol based on ZigBee HA
- Can be placed on the table or the wall
- Runs on 2 X AAA batteries
- Low power indication

Technical Parameters

Power Supply:	2 x AAA battery
Communication Range:	Up to 120 meters (line of sight)
Frequency:	2.4-2.4835 GHz
Operating Ambient:	Humidity max. 95%RH Temperature -10~50℃
Protocol:	IEEE802.15.4/ ZigBee Pro
Consumption:	@standby mode 1 uA @receiving mode 38 mA @transmitting mode 38 mA
Product dimension:	81.75mm × 81.75mm × 142mm

Wall Dimmer Switch

ZB02F



ZB02F is a wireless dimmer wall switch. It can be paired with ZigBee dimmable lighting device. It possesses the features of low power consumption in standby mode and low power inspection. It is based on ZigBee HA profile and works with any HA profile network.

ZB02F works wirelessly requires no wiring. Simply joins in the network, pair with the other On/Off/Level devices and you are ready to control.

Main Features

- Device type : Dimmer Switch
- Exquisite and elegant design
- Protocol based on ZigBee HA
- Can be placed on the table or in-wall installation
- Runs on 2 X AAA batteries
- Low power notification

Technical Parameters

Power Supply:	3V (2 AAA batteries)
Communication Range:	Up to 120 meters (line of sight)
Frequency:	2.4-2.4835 GHz
Operating Ambient	Humidity max. 95%RH Temperature -10~50°C
Protocol:	IEEE 802.15.4 / ZigBee Pro
Consumption:	@standby mode <2uA @receiving mode 35mA @transmitting mode 35mA
Product dimension:	81mm × 81mm × 11mm

Wireless Dimmer Switch HA/ZLL Supported

ZB02G



ZBo2G is a wireless dimmer wall switch. It can be paired with ZigBee dimmer lighting device. It possesses the features of low power consumption in standby mode and low power inspection. It is based on ZigBee HA profile and ZigBee Light Link (ZLL) standard.

ZBo2G works wirelessly requiring no wiring. Simply join ZBo2G in the network, pair with the other On/Off/Level devices to operate On/Off/Dimmer functions.

Main Features

- Device type : Dimmer Switch
- 2.4GHz ISM band transceiver; total 16 channels
- Protocol based on ZigBee HA and ZigBee Light Link (ZLL) standard
- Runs on 2 X AAA batteries

Technical Parameters

Power Supply:	3V (2 AAA batteries)
Communication Range:	Up to 70 meters (line of sight)
Frequency:	2.4-2.4835 GHz
Operating Ambient:	Humidity max. 95%RH Temperature -10~50°C
Protocol:	IEEE 802.15.4 / ZigBee Pro/ HA / ZLL
Consumption:	@standby mode ≤ 1uA @working mode = 40mA
Product dimension:	82mm× 82mm× 15mm

Wireless Scene Selector & Mode Selector

ZB02J



ZB02J, a scene selector & mode selector button, acts as an End Device in ZigBee network. It does not perform permit-join function as a coordinator or a router for other devices to join the network. It is a 3-gang switch button and allows people to perform the scene controls or mode controls. Users could setup 3 scenes via its Add Group, Store Scene, and Recall Scene features. ZB02J is based on ZigBee protocol and suitable for ZigBee HA Profile network.

Main Features

- Device type: Scene & mode selector
- Exquisite and elegant design
- Protocol based on ZigBee HA V1.1 or V1.2
- Battery-power can stay long lifetime
- Can be placed on the table or in-wall installation
- Easy installation and configuration

Technical Parameter

Power Supply:	2 x AAA batteries
Consumption:	Operating: Up to 40mA
	Standby: Up to 1uA
Communication Range:	Up to70 meters (line of sight)
Protocol:	IEEE802.15.4
Frequency:	2.4-2.4835 GHz
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Product Dimension:	82 x 82 x 15 mm

Wireless Dimmable LED Tube

ZC06



ZCo6 is a robust dimmable LED tube based on ZigBee HA profile. It has 256 light levels function. It is a long life and light weighted power consumption which conserve 60% comparing to the conventional light tubes. ZCo6 utilizes SMT LEDs with its 400 lumen/1.5 meters and 50,000-hour lamp life.

Main Features

- Four level control function
- T8 tube
- Controllable via wireless remote controller
- 50,000-hour lamp life
- Power range 100V AC ~ 240V AC
- Protocol based on ZigBee HA

	Technical Parameter
Input Power:	100 ~ 240V AC 50/60Hz
Communication Range:	Up to 70 meters (line of sight)
Consumption:	105mA @220V AC /@max lighting output 205mA @110V AC /@max lighting output
Intensity:	≥ 400 Lux / 1.5m
Installation:	T8
Efficiency:	~21W @220V AC /@max lighting output ~21.5W @110V AC /@max lighting output
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Protocol:	IEEE802.15.4 / ZigBee Pro
Product Dimension:	1200mm(L)

Wireless Dimmable LED Bulb

ZC07



ZCo7, a wireless dimmable LED bulb, is a robust light bulb based on ZigBee technology. ZCo7 utilized E27 screw base and has 256 dimmable light levels. It is a long life LED bulb and has light weighted power consumption comparing to conventional light bulbs. ZCo7 performs 5W power rate, 400LM illuminance, 6000K CCT, and 15,000 hrs lifespan.

Main Features

- Protocol based on ZigBee
- E27 base
- 5W rate power
- 15,000-hr light life
- Controllable via wireless remote controller

Technical Parameter

Power Supply:	110~265VAC, 50/60Hz
Frequency:	2.4~2.4835 GHz
Rate Power:	5W
Illuminance:	400LM
CCT:	6000K
Screw Base:	E27
Rate Power:	5W
Lifespan:	15,000 hrs
Operating Ambient:	Temperature -20~40℃
	Humidity 10%~95%RH

Wireless Curtain Controller

ZD01B



ZD01B is working as a wireless roller blind controller with level control and can bind with the devices carrying the functions of switch/level control. Through these devices, users are able to simply control ZD01B. When ZD01B is installed, users can either use remote controller, scheme setting, or time setting to open/close the shade to make a easier life.

The standard package comes with a ZD01B controller and the PGM-2 tubular motor kit: a 70 cm aluminum tube and the fixtures.

Main Features

- Device type : Shade
- Carrying the functions of on/off and level control
- Protocol based on ZigBee HA
- Support wireless or manual operation
- Easy installation

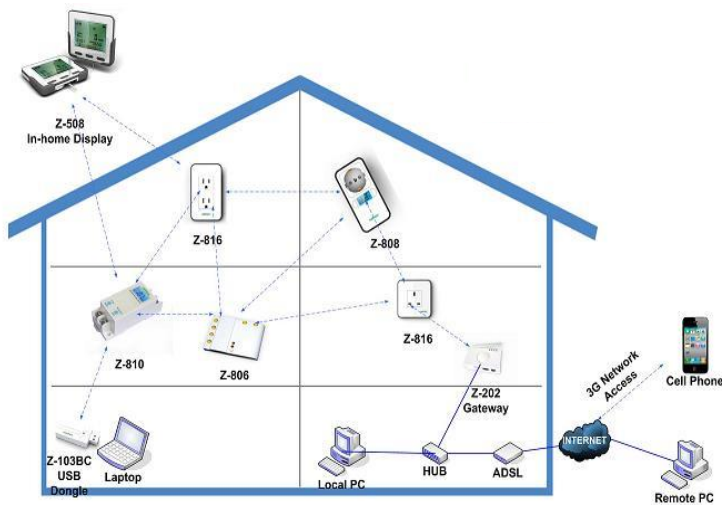
Technical Parameter

Power Supply:	DC 12V, 3A
Power Consumption:	<30W
Operating Ambient:	Temperature -10~50℃
	Humidity max. 95%RH
Communication Range:	Up to 120 meters (line of sight)
Protocol:	IEEE 802.15.4 / ZigBee Pro
Product Dimension:	85mm × 55mm × 21mm

PGM-2 Tubular Motor Specification

Power Supply:	DC 12V/ 24V
Power Consumption:	5W (0.4A/ 0.2A)
Torque:	0.7N.m
Speed (rpm):	34

Netvox Energy Management



Netvox' s energy management system provides various types of power device for different installation. It enables user to study consumption behavior over time achieving minimal monthly bill.

Energy Monitoring Devices

Model	Detection range (1% accuracy)	Load
Z800	100mA~16A (Max)*	4000W
Z805B	100mA~16A (Max)	4000VA
Z808A	100mA~16A (Max)*	4000VA
Z808B	100mA~3A (Max)*	600W
Z809A	100mA~16A (Max)*	4000VA
Z809B	100mA~3A (Max)*	600W
Z810B	100mA~20A (Max)	5000VA
Z815 A/B/C	100mA~8A (Max)	2000VA
Z815 D/E	100mA~4A (Max)	800W
Z815N	100mA~8A (Max)	2000VA
Z816 B	100mA~15A (Max)*	3750VA
Z816 F/G/H	100mA~16A (Max)*	4000VA
Z817A	100mA~16A (Max)	4000VA
Z817B	100mA~2A (Max)	400W
Z817C	100mA~16A (Max)	4000VA

* Note: The maximum detection limit can be varied for different region.

Power Socket with Power Consumption Monitoring

Z800



Z800 is a smart plug that allows off site remote control. Users can monitor the load current, voltage, power, and kilo-watt-hour of the appliances and determine if the device is overloaded. The reading can be reported for energy management.

Z800 can be paired with remote devices carrying the functions of on/off control. The manual switch can also be used at the absent of the remote. It is based on ZigBee HA profile and works with any ZigBee HA network.

Socket type selection



Model based on Socket type

Z800B: US type B Z800G: UK type G
Z800F: EURO type Z800I: AU type I

Main Features

- Device type : Mains Power Outlet (HA profile)
- Carrying on/off function
- Support Smart Energy management
- Protocol based on ZigBee
- Overload protection
- Can be controlled by any ZigBee remotes
- Various countries power sockets available
- Built-in ZigBee router feature.

Technical Parameter

Input Power	100~240VAC max. /50/60 Hz
Resistive Load:	I:16A; P:3200VA
Inductive Load:	I:8A; P:1600VA (COSφ=0.4)
Consumption monitoring range:	120mA~16A with ± 1% accuracy
Frequency/Protocol:	2.4-2.4835 GHz/ IEEE 802.15.4/ZigBee Pro
Communication Range:	Up to 150 meters
Operating Ambient:	Temperature -10~50°C Humidity max. 5~85%RH
Product dimension:	93.5mm x 62.5mm x 41mm (main part)

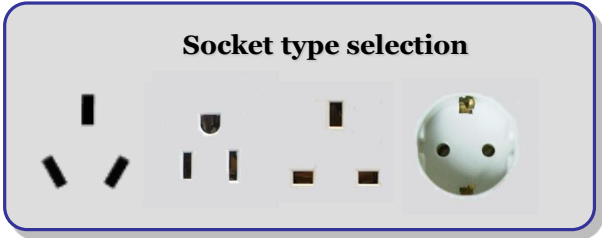
Network and Adapter

Range Extender Power Socket

Z800R



Z800R is a dedicated network range extender. It is designed to have electrical outlet which inherent the look of its Z800 neighbor. The difference between them is that Z800R doesn't have power consumption monitoring and doesn't support wireless on/off control. User may use it as a simple range extender. Z800R has a manual switch to toggle the AC output to switch appliances attached. It is based on ZigBee HA profile and works with any ZigBee HA network.



Main Features

- Device type: Range Extender (HA profile)
- Protocol based on ZigBee
- Various countries power sockets available

Technical Parameter	
Input Power	100~250 VAC 50/60 Hz
Frequency:	2.4-2.4835 GHz
Consumption:	@standby mode <17mA @operating mode <17mA
Communication Range:	Up to 150 meters
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Protocol:	IEEE 802.15.4 / ZigBee Pro
Product dimension:	93.5mm x 62.5mm x 41mm (main part)

Power Strip with Power Consumption Monitoring

Z803



Z803 is a 4-gang power strip with power consumption display based on ZigBee protocol. It performs the On/Off controlling feature for users to manage each socket independently or simultaneously. The equipped override switch button allows users to manually switch on/off each socket. Users could also wirelessly control the switch through paired soft On/Off button or paired remote controller.

Power consumption of each socket can be individually monitored. Via the built-in LCD, users are able to check the consuming current/ voltage/ power/ energy.

Z803 comes with two additional USB jacks that facilitate USB charging purpose.

Socket type selection



Model based on Socket type

- Z803B: US type B
- Z803G: UK type G
- Z803F: EURO type F
- Z803I: AU type I

Main Features

- Device type: on/off output
- Carrying on/off function
- Support energy management
- Protocol based on ZigBee HA V1.1 or V1.2
- Can be controlled by any ZigBee remotes
- Various power sockets available
- Built-in router feature.
- 2 x USB DC 5V/1A outputs

Technical Parameter

Input Power	100~240VAC max. 50/60 Hz
Resistive Load:	16A/250VAC; P:4000VA
Consumption monitoring range	100mA~16A with ± 1% accuracy
Frequency/Protocol:	2.4~2.4835 GHz/ IEEE 802.15.4
Communication Range:	Up to 150 meters (line of sight)
Operating Ambient:	Temperature -10~50°C Humidity max. 5~85%RH
Product dimension:	325mm x 61mm x 40mm (main part)

Power Socket with Power Consumption Monitoring

Z809A



Z809A is a smart plug that allows off site remote control. Users can monitor the load current, voltage, power, and kilo-watt-hour of the appliances and determine if the device is overloaded. The reading can be reported for energy management.

Z809A can be paired with remote devices carrying the functions of on/off control. The manual switch can also be used at the absent of the remote. It is based on ZigBee HA profile and works with any ZigBee HA network.

Socket type selection



Model based on Socket type

Z809A: US type B Z809AG: UK type G

Z809AF: EURO type F Z809AI: AU type I

Main Features

- Device type : Mains Power Outlet (HA profile)
- Carrying on/off function
- Support Energy management
- Protocol based on ZigBee HA V1.1 or V1.2
- Overload protection
- Can be controlled by any ZigBee remotes
- Various countries power sockets available
- Built-in ZigBee router feature.

Technical Parameter

Input Power	100~240VAC max. /50/60 Hz
Resistive Load:	16A/250VAC (AU type: 10A); 4000VA
Inductive Load:	8A/220VAC; P:1760VA (COSφ=0.4)
Consumption monitoring range	125mA~16A with ± 1% accuracy
Frequency/Protocol:	2.4-2.4835 GHz/ IEEE 802.15.4/ZigBee Pro
Communication Range:	Up to 150 meters
Operating Ambient:	Temperature -10~50°C Humidity max. 5~85%RH
Product dimension:	95mm x 56.2mm x 34mm (main part)

Dimmable Socket with Power Consumption Monitoring

Z809B



Z809B is a dimmable smart plug that allows off site remote control. Users can monitor the load current, voltage, power, and kilo-watt-hour of the appliances and determine if the device is overloaded. The reading can be reported for energy management.

Z809B can be paired with remote devices carrying the functions of on/off/level control. The manual switch can also be used at the absent of the remote.

Socket type selection



Model based on Socket type

Z809BB: US type B Z809 BG: UK type G
Z809BF: EURO type Z809BI: AU type I

Main Features

- Device type : Dimmer Light (HA profile)
- Carrying on/off function
- Support energy management
- Protocol based on ZigBee HA V1.1 or V1.2
- Overload protection
- Can be controlled by any ZigBee remotes
- Various countries power sockets available
- Built-in ZigBee router feature.

Technical Parameter

Input Power

100~240VAC max. /50/60 Hz

The maximum electrical load:

- a. Resistive Load (incandescent light bulb): 3A/600W
- b. Dimmable fluorescent lamp or dimmable LED lamp: 100W (Parallel connection is not recommended)
- c. DO NOT connect coil transformer for dimming

Consumption monitoring range

100mA~3A with ± 1% accuracy
w/ 1mA absolute resolution

Frequency/Protocol:

2.4-2.4835 GHz/ IEEE 802.15.4/ZigBee Pro

Communication Range:

Up to 150 meters

Operating Ambient:

Temperature -10~50℃
Humidity max. 5~85%RH

Product dimension:

95mm x 58mm x 42.5mm (main part)

Network and Adapter

Range Extender Power Socket

Z809C



Z809C is a dedicated network range extender. It is designed to have electrical outlet which inherent the feature of its Z800R neighbor. The difference between them is that Z809C has a 10 hours backup battery for energy blackout event. Z809C doesn't have power consumption monitoring nor supports wireless on/off control. User may use it as a simple range extender.

Socket type selection



Model based on Socket type

Z809CB: US type B **Z809CG:** UK type G
Z809CF: EURO type F **Z809CI:** AU type I

Main Features

- Device type : Range Extender (HA profile)
- Protocol based on ZigBee
- 650mAh backup battery (last about 10 hours)
- Various countries power sockets available

Technical Parameter

Input Power	100~240 VAC 50/60 Hz
Frequency:	2.4-2.4835 GHz
Consumption:	@standby mode <30mA @operating mode <35mA
Communication Range:	Up to 210 meters (line of sight)
Operating Ambient:	Temperature -10~50°C Humidity max. 5~85%RH
Protocol:	IEEE 802.15.4 / ZigBee Pro
Product dimension:	95mm x 56.2mm x 34mm (main part)

Network and Adapter

Range Extender Power Socket

Z809D



Z809D is a dedicated network range extender. It is designed to have electrical outlet which inherent the feature of its neighbor Z809C. The difference between them is the coverage distance. Z809D has its signal boosted up to 630 meters.

Socket type selection



Model based on Socket type

Z809DB: US type B **Z809DG:** UK type G

Z809DF: EURO type F **Z809DI:** AU type I

Main Features

- Device type : Range Extender (HA profile)
- Protocol based on ZigBee
- 650mAh backup battery (last about 10 hours)
- Various countries power sockets available

Technical Parameter

Input Power	100~240 VAC 50/60 Hz
Frequency:	2.4-2.4835 GHz
Transmission Power:	18dBm (max)
Receiving Sensitivity:	-107dBm
Communication Range:	Up to 600 meters (line of sight)
Operating Ambient:	Temperature -10~50°C Humidity max. 5~85%RH
Protocol:	IEEE 802.15.4 / ZigBee Pro
Product dimension:	95mm x 56.2mm x 34mm (main part)

Power Socket with Power Consumption Monitoring

Z808A



Z808A is a smart plug that allows off site / remote control. Users can monitor the load current, voltage, power, and kilo-watt-hour of the appliances and determine if the device is overloaded. The reading can be reported for energy management.

Z808A can be paired with remote devices carrying the functions of on/off control. The manual switch can also be used at the absent of the remote.

Socket type selection



Model based on Socket type

Z8o8AB: US type B Z8o8AG: UK type G

Z8o8AF: EURO type Z8o8AI: AU type I

Main Features

- Device type : Mains Power Outlet (HA profile)
- Carrying on/off function
- Support energy management
- Protocol based on ZigBee
- Overload protection
- Can be controlled by any ZigBee remotes
- Various countries power sockets available
- Built-in ZigBee router feature.

Technical Parameter

Input Power	100~240VAC max. /50/60 Hz
Resistive Load:	16A/250VAC; 400VA
Inductive Load:	1HP(Horsepower)/250VAC; ½ HP/125VAC
Consumption monitoring range	100mA~16A (HW v7.2) with ± 1% accuracy w/ 1mA absolute resolution
Frequency/Protocol:	2.4-2.4835 GHz/ IEEE 802.15.4 / ZigBee Pro
Communication Range:	Up to 70 meters
Operating Ambient:	Temperature -10~50°C Humidity max. 5~85%RH
Product dimension:	93.5mm x 62mm x 41mm (main part)

Dimmable Socket with Power Consumption Monitoring

Z808B



Z808B is a dimmable smart plug that allows off site / remote control. Users can monitor the load current, voltage, power, and kilo-watt-hour of the appliances and determine if the device is overloaded. The reading can be reported for energy management.

Z808B can be paired with remote devices carrying the functions of on/off/level control. The manual switch can also be used at the absent of the remote.

Socket type selection



Model based on Socket type

Z8o8BB: US type B **Z8o8BG:** UK type G
Z8o8BF: EURO type **Z8o8BI:** AU type I

Main Features

- Device type : Dimmer Light (HA profile)
- Carrying on/off function
- Support energy management
- Protocol based on ZigBee
- Overload protection
- Can be controlled by any ZigBee remotes
- Various countries power sockets available
- Built-in ZigBee router feature.

Technical Parameter

Input Power

100~240VAC max. /50/60 Hz

The maximum electrical load:

- a. Resistive Load (incandescent light bulb): 3A/600W
- b. Dimmable fluorescent lamp or dimmable LED lamp: 100W (Parallel connection is not recommended)
- c. DO NOT connect coil transformer for dimming

Consumption monitoring range

100mA~3A with $\pm 1\%$ accuracy
w/ 1mA absolute resolution

Frequency/Protocol:

2.4-2.4835 GHz/ IEEE 802.15.4/ZigBee Pro

Communication Range:

Up to 150 meters

Operating Ambient:

Temperature -10~50°C
Humidity max. 5~85%RH

Product dimension:

93.5mm x 62mm x 41mm (main part)

TX Switch

Z801Tx



Z801 is a set of wireless switch based on ZigBee technology. Z801Tx includes 5 input channels for external switch connections. It turns conventional on/off switch or binary sensor into ZigBee wireless device.

It can be installed in a wall enclosure box to become in-wall mounted. Z801TXB can be wired with a magnetic contact or some sort to become a wireless security zone sensor.

Product Model

Z801T03: On/Off Switch/Binary Sensor, 3V Battery

Z801T05: On/Off Switch/Binary Sensor,
DC 5V

Main Features

- Device type :
Z801Tx : On/Off Switch/Binary Sensor
- Protocol based on ZigBee HA
- Compatible with power loading controller, smart key, and wall switches.
- Z801Rx has a built-in ZigBee router feature.
- 2 pcs AAA batteries (Z801TX) or 5V and 12V DC(Z801 TX/RX)
- Z801TX batteries can support its operation for three years.
- Z801Tx has 5 input channels to configure open /close /switch /delay toggle input port

Technical Parameter

Power Supply:	Z-801T03: 2 AAA Batteries Z-801T05: DC 5V
Communication Range:	Up to 70 meters (line of sight)
Operating Ambient:	Temperature -10~50°C, 5~85%RH max.
Consumption	<40mA @transmit & receive
Protocol:	IEEE 802.15.4 / ZigBee Pro
Resistive Load:	Max. 50 Watt, 10A
Product dimension:	68mm × 48mm × 16.5mm

RX Switch

Z801Rx



Z801 is a set of wireless switch based on ZigBee technology. Z801Rx has one auxiliary DC output power for external low-power devices (e.g. Cameras, DC lamps etc.)

It can be installed in a wall enclosure box to become in-wall mounted. Z801TXB can be wired with a magnetic contact or some sort to become a wireless security zone sensor.

Product Model

Z801R05: On/Off Output, DC 5V

Z801R12: On/Off Output, DC 12V

Main Features

- Device type :
Z801Rx : On/Off Output
- Protocol based on ZigBee HA
- Compatible with power loading controller, smart key, and wall switches.
- Z801Rx has a built-in ZigBee router feature.
- 5V and 12V DC(Z801 TX/RX)
- Z801Rx has 1 output channel capable of driving external relay

Technical Parameter

Power Supply:	Z-801R05: DC 5V Z-801R12: DC 12V
Communication Range:	Up to 70 meters (line of sight)
Operating Ambient:	Temperature -10~50°C, 5~85%RH max.
Consumption	<40mA @transmit & receive
Protocol:	IEEE 802.15.4 / ZigBee Pro
Resistive Load:	Max. 50 Watt, 10A
Product dimension:	68mm × 48mm × 16.5mm

Thermocouple Measurement sensor

Z801A



The Z801A is a temperature-sensing device that can be connected to two thermocouples simultaneously for testing, ZigBee™ network termination. It integrates the 2.4GHz ISM band transceivers and is compatible with the ZigBee Pro protocol to communicate with the ZigBee network routers and coordinators. Z801A K type (model number: Z801AK) or type J thermocouple (type: Z801AJ) can be selected according to requirements. The temperature of the object touching the thermocouple is detected and the collected data is transmitted to other devices through the wireless network.

Main Features

- Protocol based on IEEE802.15.4 / Zigbee Pro™
- 2.4GHz ISM band transceiver ; total 16 channels
- Power supply: 2 x 1.5V AA batteries
- Up to 210 meters wireless transmission range in non obstacle space
- Thermocouple type : Type J or Type K

Technical Parameters

Power supply:	2 x 1.5V AA batteries
Protocol:	IEEE 802.15.4 / ZigBee Pro
RF parameters:	IEEE802.15.4 PHY/MAC support 2.4-2.4835 GHz
Consumption @transmitting mode: @receiving mode:	43mA 28mA
Communication Range:	Up to 210meters
Product Dimension:	67mm × 49mm × 18mm

Sensor Signal Tx Module

Z801TxB



Z801TxB is the sensor signal transmitter module. It connects up to 5 IAS Zone sensors and transmits command signals to the enrolled CIE (the IAS control center) to notify the user. It utilizes 2.4GHz ISM band transceiver and is based on ZigBee Pro. It is communicable with ZigBee routers, coordinator, and end devices.

Product Model

Z801TxB03: 3V DC (battery)
Z801TxB05: 5V DC

Main Features

- Protocol based on ZigBee HA
- Utilizes 2.4GHz ISM band, total 16 Channels
- Power supply: 3V battery or 5V DC
- Build-in antenna
- Easy to operate and configure

Technical Parameter

Power Supply:	3V (2 x AAA battery) or DC 5V
Communication Range:	Up to 80 meters (line of sight)
Consumption:	@standby mode: <3uA@3V; <13uA@5V @operating mode <35mA
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Protocol:	IEEE802.15.4 / ZigBee Pro
Product Dimension:	66mm x 48mm x 18mm

5-way Switch Signal Tx Module

Z801T03A



Z801T03A is the power switch signal transmitter module which can send switch signals to control devices. It sends up to 5-way switch signals. It integrates EM357 chip and utilizes 2.4GHz ISM band transceiver and is based on ZigBee Pro. It is communicable with ZigBee routers, coordinator, and end devices.

Main Features

- Protocol based on IEEE802.15.4/ZigBee ProTM
- Utilizes 2.4GHz ISM band, total 16 Channels
- Power supply: 2 x AAA battery
- Easy to operate and configure

Technical Parameter

Power Supply:	3V (2 x AAA battery)
Communication Range:	Up to 210 meters (line of sight)
Consumption:	@standby mode: <13uA @operating mode <35mA
Operating Ambient:	Temperature -10~50°C Humidity max.5%-85%RH
Protocol:	IEEE802.15.4 / ZigBee Pro
Product Dimension:	68mm × 48mm × 16.5mm

Wireless Flood Sensor

Z801WLS



Z801WLS is attached with a flood sensor for flood sense and reporting. It reports to a CIE (security center) in the network to setoff alarms. Z-801WLS can be attached with 3rd party sensors for various deployments.

Z801WLS is based on ZigBee Pro. It communicates with the router, coordinator, and end-devices in the network.

Main Features

- Protocol based on ZigBee HA
- Utilizes 2.4GHz ISM band, total 16 Channels
- Power supply: 3V battery
- Build-in antenna
- Easy to operate and configure

Technical Parameter

Power Supply:	3V (2 x AAA battery)
Communication Range:	Up to 80 meters (line of sight)
Consumption:	@standby mode <3uA @operating mode <35mA
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Protocol:	IEEE802.15.4 / ZigBee Pro
Product Dimension:	66mm x 48mm x 18mm

Two Way Wireless Switch Module for Mechanical Switches

Z802



Z8o2 is a dual channel power output. It allows user using a ZigBee enabled remote controller to wirelessly switch On/Off the load such as light switch attached to it.

It is based on ZigBee HA profile and applicable to any ZigBee HA network. It can communicate with router, coordinator, and other end devices in the network.

Main Features

- Device type : On/Off Output
- Protocol based on ZigBee HA
- Through mechanical switches and ZigBee command to control two ways switches

Technical Parameter

Input Power:	100~240V AC 50/60Hz
Resistive Load:	10A/250VAC
Consumption:	@operating mode <5mA
Communication Range:	Up to 210 meters indoor
Operating Ambient:	Temperature -10~50℃ Humidity max. 5~85%RH
Protocol/Frequency:	2.4-2.4835 GHz/IEEE 802.15.4 / ZigBee Pro
Product dimension:	70mm × 59mm × 17mm

Switch Control Unit with Power Consumption Monitoring

Z805A/B



Z805A
Wireless Switch Control Unit



Z805B
Wireless Switch Control Unit

Z805B is a switch control unit based on ZigBee Pro. It is equipped with load consumption inspection and load control feature for HA. It has an external cabling for conventional manual switch. In a HA network, it receives switch signal from its paired wireless switch. Z805B is a simple metering which contains Simple Metering and Load Control/Demand Response features. It receives event scheduling signals and returns load information to the network.

Main Features

- Device type : On/Off output (HA profile)
- Protocol based on ZigBee
- Manual override switch and ZigBee wireless one output controls
- (optional) extra memory (EEPROM 128kB)

Technical Parameters

Input Power :	Z805A: 240VAC Z805B: 100~240VAC 50/60 Hz
Resistive Load:	16A/250VAC/4000W
Inductive Load:	1.5HP/240VAC 8A/220VAC/1760VA (COSΦ=0.4)
Communication Range:	Up to 150 meters
Consumption monitoring range:	125mA~16A with ±1% accuracy w/ 1mA absolute resolution
Operating Ambient:	Temperature -10~50°C Humidity max. 5~85%RH
Protocol:	IEEE 802.15.4 / ZigBee Pro
Product Dimension:	Z805A: 54mm × 42mm × 23mm Z805B: 51 mm × 51 mm × 17mm

Two Outputs Wireless Switch Control Unit

Z806



Z806 is defined as a wireless switch device based on ZigBee protocol. It has two circuits to be on or off wirelessly controlled. It allows user using a ZigBee remote controller to wirelessly switch on or off the load attached to it. Z806 is a router device in the network which permits other devices to join the network.

Z806 utilizes 2.4 GHz ISM band for ZigBee HA and communicates with routers, coordinator, and end devices in a network.

Main Features

- Device type: On/Off Output (HA Profile)
- ZigBee high power output switch
- Protocol based on ZigBee
- Equipped with router device
- Two-output relay controls individual device
- Compact size that can be installed in power junction box

Technical Parameters

Input Power :	100~240VAC 50/60 Hz
Resistive Load:	10A/250VAC
Inductive Load:	3A/250VAC
Communication Range:	Up to 210 meters indoor
Operating Ambient:	Temperature -10~50℃ Humidity max. 5~85%RH
Frequency	2.4-2.4835 GHz
Protocol:	IEEE 802.15.4 / ZigBee Pro
Product Dimension:	67mm x 49 mm x 17.5 mm

Switch Control Unit with Consumption Display

Z810B



Z810B is a switch control and load display unit for energy, power, current, and voltage readings. It can be controlled by its manual override switch or by a logically paired wireless switch. It also supports and transmit requested consumption readings to Netvox APP. Z810B utilizes Ember SoC.

Main Features

- Device type: Mains Power Outlet
- Protocol based on ZigBee
- Manual override switch and ZigBee wireless controller
- Built-in ZigBee router

Technical Parameters

Input Power :	100~240VAC 50/60Hz
Resistive Load:	I:20A; P:5000W
Consumption monitoring range	100mA~20A with ± 1% accuracy w/ 1mA absolute resolution
Frequency/Protocol:	2.4-2.4835 GHz/ IEEE 802.15.4 /ZigBee Pro
Communication Range:	Up to 150 meters
Operating Ambient:	Temperature -10~50℃ Humidity max. 5~85%RH
Product dimension:	94mm x 36mm x 41mm

Switch Control Unit

Z811



Z811 is a high reliable on or off output switch device. It receives On/Off/Toggle control signals from logical bound wireless device for home automation control.

Z811 is based on ZigBee HA profile and uses 2.4GHz ISM transceiver module. It acts as a router in the network and permits other devices to join the network.

Main Features

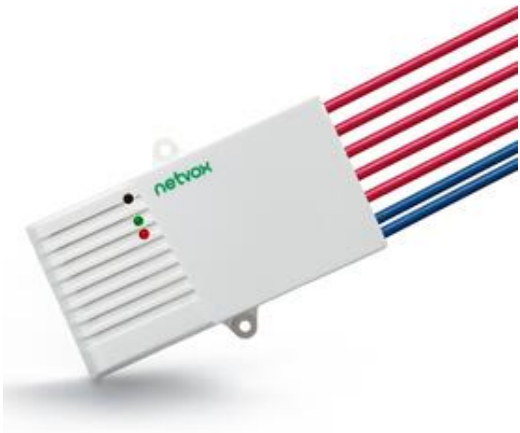
- Device type : On/Off Light
- Protocol based on ZigBee HA
- ZigBee wireless four ways switch, with the combination of #1, #2, #3, #4, or #1, #1#2, #1#2#3, #1#2#3#4
- Built-in ZigBee router

Technical Parameters

Input Power :	100~240V AC 50/60Hz
Resistive Load:	10A/250VAC
Inductive Load:	3A/250VAC
Communication Range:	Up to 210 meters (line of sight)
Operating Ambient:	Temperature -10~50°C Humidity max. 5~85%RH
Protocol:	IEEE802.15.4 / ZigBee Pro
Product Dimension:	105mm x 55 mm x 18 mm

Wireless AC Dual-output Curtain Control Switch

Z811B



Z811B is working as a wireless dual-output curtain controller and can bind with the devices carrying switch/level control and communicate with coordinator or a router in Zigbee network. When Z811B is installed, users can use remote controller to open/close the curtain wirelessly. Z811B is based on ZigBee protocol and suitable for ZigBee HA Profile network.

Main Features

- Device type: shade
- Protocol based on IEEE 802.15.4 / ZigBee ProTM
- Dual-output curtain controller
- Support wireless or manual operation

Technical Parameters

Power supply:	100~240 VAC 50/60 Hz
Resistive Load:	8A / 250VAC ; P:2000W
Inductive Load:	5A /250VAC;P:1250W （COSφ=0.4） Horsepower：1/6HP/250VAC
Frequency:	2.4GHz ISM band transceiver; total 16 channels
Communication range:	150 m
Operating Ambient：	Temperature -10~50℃ Humidity 5~85%RH
Product Dimension:	84.5mm x 84.5mm x 33.5mm

Wireless Switch Module with Mechanical Switches

Z812A



Z812A is a highly reliable switching control device consisted 4 on/off pair soft-switches. One of the four pairs is the straight through cabled relay mechanical switch and could also receive control signal wirelessly. The other three soft switches can control other power device wirelessly.

Z812A is based on ZigBee HA profile and uses 2.4GHz ISM transceiver module. It acts as a router in the network and permits other devices to join the network.

Main Features

- Device type : On/Off Output & On/off Switch
- Protocol based on ZigBee HA
- A four to eight combinations switches with ZigBee wireless or manual control
- Built-in ZigBee router

Technical Parameters

Input Power :	100~240V AC 50/60Hz
Resistive Load:	16A/250VAC/4000W
Inductive Load:	1.5HP/240VAC 8A/220VAC/1760VA (COSΦ=0.4)
Communication Range:	Up to 120 meters (line of sight)
Operating Ambient:	Temperature -10~50℃ Humidity max. 5~85%RH
Protocol:	IEEE802.15.4 /ZigBee Pro
Product Dimension:	44mm × 35mm × 69mm

Wireless Switch Module –Battery Powered

Z812B



Z812B is a highly reliable battery powered wall switches 4 toggle on/off soft-switches and 2 pairs of dimmable switch. These soft switches control paired power outlets wirelessly.

Main Features

- Device type: HA: On/Off Light switch & Dimmer Switch
- Protocol based on ZigBee HA
- 4 toggle switches and 2 pairs dimmable switches.
- Low-battery alert message

Technical Parameters

Input Power :	2 x AA size batteries
Transmission power	7dBm
Receiving Sensitivity	-100dBm
Communication Range:	Up to 120 meters
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Protocol:	IEEE802.15.4 /ZigBee Pro
Product Dimension:	44mm × 35mm × 69mm

Wall Switch with Consumption Monitoring

Z815A/B/C



Z815 A/B/C are the local in-wall switch comes with one, two, and three gang control types. Its enclosure is designed to replace conventional junction box installation wall switches. The switches on Z815 allows user to switch on/off electrical appliances that is attached at its AC outputs. Z815 enables users to switch locally and switch wirelessly via paired ON/OFF ZigBee remote controller, smart phone, or PC. Remote energy monitoring is made possible with its built-in energy sensing mechanism. It can be used along side with PC based software ZiG-BUTLER to achieve smart home functions such as scheduler, mode of operation, and scenes.

Product Model

Z815A: single gang

Z815B: two gang

Z815C: three gang

Main Features

- Device type: Mains Power Outlet
- Standard Junction Box
- Support energy consumption management
- Overload protection
- Can be controlled by any ZigBee remotes
- Built-in ZigBee router feature.

Technical Parameters

Input Power	100~240VAC max. /50/60 Hz
Resistive Load:	8A/250VAC; P:2000W
Inductive Load:	1/6HP/250VAC 5A/250VAC; P:1250W (COSφ=0.4)
Consumption monitoring range	125mA~8A with ± 1% accuracy w/ 1mA absolute resolution
Frequency/Protocol:	2.4-2.4835 GHz/ IEEE 802.15.4/ZigBee Pro
Communication Range:	Up to 210 meters
Operating Ambient:	Temperature -10~50°C Humidity max. 5~85%RH
Product dimension:	84.5mm x 84.5mm x 33.5mm

Dimmable Wall Switch with Consumption Monitoring

Z815D/E



Z815 D/E is the local in-wall dimmable switch comes with one and two gang control types having 256 controllable AC output level circuits. Its enclosure is designed to replace conventional junction box installation type wall switches. The switches on Z815 allows user to switch on/off electrical appliances that is attached at its AC outputs. Z815 enables users to switch locally and switch wirelessly via paired ON/OFF/LEVEL ZigBee remote controller, smart phone, or PC. Remote energy monitoring is made possible with its built-in energy sensing mechanism. It can be used along side with PC based software ZiG-BUTLER to achieve smart home functions such as scheduler, mode of operation, and scenes.

Product Model

Z815D: single gang
Z815E: two gang

Main Features

- Device type: Dimmer Light
- Standard Junction Box
- Support energy consumption management
- Overload protection
- Can be controlled by any ZigBee remotes
- Built-in ZigBee router feature.

Technical Parameters

Input Power	100~240VAC max. /50/60 Hz
The maximum electrical load:	a. Resistive Load (incandescent light bulb): 3A/600W (single gang) & 2A/300W (two gang) b. Dimmable fluorescent lamp or dimmable LED lamp: 100W (Parallel connection is not recommended) c. DO NOT connect coil transformer for dimming
Consumption monitoring range	125mA~3A with ± 1% accuracy w/ 1mA absolute resolution
Frequency/Protocol:	2.4-2.4835 GHz/ IEEE 802.15.4/ZigBee Pro
Communication Range:	Up to 210 meters
Operating Ambient:	Temperature -10~50°C Humidity max. 5~85%RH
Product dimension:	86mm x 86mm x 38mm

Shade Control Switch

Z815N



Z815N is working as a wireless two-directional shade controller with level control and can bind with the devices carrying the functions of switch/level control. Through these devices, users are able to simply control the shade. When Z815N is installed, users can either use remote controller, scheme setting, or time setting to open/close the shade to make a easier life. Z815N is based on ZigBee protocol and suitable for ZigBee HA Profile network.

Main Features

- Device type: Shade
- Standard Junction Box
- Protocol based on ZigBee HA V1.1 or V1.2
- Support wireless or manual operation
- Can be controlled by any ZigBee remotes
- Built-in ZigBee router feature.

Technical Parameters

Input Power	100~240VAC max. /50/60 Hz
Resistive Load:	8A/250VAC; P:2000W
Inductive Load:	5A/250VAC; P:1250W (COSφ=0.4)
Motor load:	1/6HP/250VAC
Frequency/Protocol:	2.4~2.4835 GHz/ IEEE 802.15.4/ZigBee Pro
Communication Range:	Up to 210 meters
Operating Ambient:	Temperature -10~50℃ Humidity max. 5~85%RH
Product dimension:	84.5mm x 84.5mm x 33.5mm

Wall Socket with Consumption Monitoring

Z816B/F/G/H



Z816 series is the consumption monitoring enabled wall socket available for various sockets types for different countries. Energy consumption of electrical appliances that are attached to these sockets is able to be monitored.

Remote energy consumption monitoring is made possible with its in-built energy sensing mechanism. Home energy can be managed and periodic consumption report can be graphed.

Model based on Socket type

Z816B: US
Z816F: EURO
Z816G: UK
Z816H: China

Main Features

- Device type: Mains Power Outlet
- Support energy consumption management
- Overload protection
- Can be controlled by any ZigBee remotes
- Various countries power sockets available
- Built-in ZigBee router feature.

Technical Parameters

Input Power	100~240VAC max. /50/60 Hz
Resistive Load:	Z816B: 16A/250VAC; P:4000VA Z816F/G/H: 16A/250VAC; P:4000VA
Inductive Load:	1.5HP/240VAC 8A/220VAC; P:1760VA (COSφ=0.4)
Consumption monitoring range	125mA~16A with ± 1% accuracy w/ 1mA absolute resolution
Frequency/Protocol:	2.4-2.4835 GHz/ IEEE 802.15.4 /ZigBee Pro
Communication Range:	Up to 150 meters
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH

Ceiling Mount with Consumption Monitoring

Z817A



Z817A is the consumption monitoring switch suitable for ceiling mount lighting. Turning conventional lights into ZigBee lights which can be controlled through paired ZigBee remote controllers or switches and even PC tablet.

Energy consumption reading is able to be monitored with PC based software to achieve smart home functions such as scheduler, mode of operation, and scenes. Energy can be managed, and periodic consumption report can be graphed.

Main Features

- Device type: Mains Power Outlet
- Support energy consumption management
- Protocol based on ZigBee HA
- Overload protection
- Can be controlled by any ZigBee remotes
- Built-in ZigBee router feature.

Technical Parameters

Input Power	100~240VAC max. /50/60 Hz
Resistive Load:	16A/250VAC/4000W
Inductive Load:	1.5HP/240VAC 8A/220VAC/1760VA (COSΦ=0.4)
Consumption monitoring range	100mA~16A with ± 1% accuracy w/ 1mA absolute resolution
Frequency/Protocol:	2.4-2.4835 GHz/ IEEE 802.15.4 / ZigBee Pro
Communication Range:	Up to 150 meters (line of sight)
Operating Ambient:	Temperature -10~50°C Humidity max. 5~85%RH
Product dimension:	Front panel φ90mm, thickness 13mm, back cover 51mm * 45mm, depth 33.5mm.

Ceiling Mount Dimmable with Consumption Monitoring

Z817B



Z817B is the consumption monitoring switch suitable for ceiling mount dimmable lighting. Turning conventional lights into ZigBee lights which can be controlled through paired ZigBee remote controllers or switches and even PC tablet.

Energy consumption reading is able to be monitored with PC based software to achieve smart home functions such as scheduler, mode of operation, and scenes. Energy can be managed, and periodic consumption report can be graphed.

Main Features

- Device type: Dimmer Light
- Support energy consumption management
- Protocol based on ZigBee HA
- Overload protection
- Can be controlled by any ZigBee remotes
- Built-in ZigBee router feature.

Technical Parameter

Input Power	100~240VAC max. /50/60 Hz
The maximum electrical load:	a. Resistive Load (incandescent light bulb): 3A/600W b. Dimmable fluorescent lamp or dimmable LED lamp: 100W (Parallel connection is not recommended) c. DO NOT connect coil transformer for dimming
Consumption monitoring range	50mA~2.5A with $\pm 1\%$ accuracy w/ 1mA absolute resolution
Frequency/Protocol:	2.4-2.4835 GHz/ IEEE 802.15.4 / ZigBee Pro
Communication Range:	Up to 150 meters (line of sight)
Operating Ambient:	Temperature -10~50°C Humidity max. 5~85%RH
Product dimension:	Front panel $\phi 90$ mm, thickness 13mm, back cover 51mm * 45mm, depth 33.5mm.

Ceiling Mount Infrared Motion Sensor Switch

Z817C



Z817C is a ceiling mount Infrared based motion sensing switch. It detects motions within view range and turns ON the electrical appliances wire-attached achieving energy conservation.

It is based on ZigBee HA and is applicable in any ZigBee HA protocol network.

Main Features

- Device type : On/Off Output
- Protocol based on ZigBee HA
- Passive Infrared
- Wide angle detection
- Built-in ZigBee router feature

Technical Parameters

Input Power	100~240VAC max. /50/60 Hz
Resistive Load:	16A/250VAC/4000W
Inductive Load:	1.5HP/240VAC 8A/220VAC/1760VA (COSΦ=0.4)
Consumption monitoring range	100mA~16A with ± 1% accuracy w/ 1mA absolute resolution
Frequency/Protocol:	2.4-2.4835 GHz/ IEEE 802.15.4 / ZigBee Pro
Communication Range:	Up to 150 meters (line of sight)
Operating Ambient:	Temperature -10~50℃ Humidity max. 5~85%RH
Product dimension:	Front panel φ90mm, thickness 22.5mm, back cover 51mm * 45mm, depth 33.5mm.

Wireless Ceiling Motion Detector

Z817D



Z817D is a ceiling-mount motion detector based on ZigBee wireless technology. Through infrared acquisition, it reports status change information to a target device. When Z817D detects the presence of human beings or animals, it reports the message to the network. Z817D also features On/Off switch. When Z817D detects the movement, for example, it reports a light on message.

Main Features

- Device type: On/Off Switch
- Protocol based on ZigBee HA
- Passive Infrared
- Wide angle detection
- Simple operation and device configuration

Technical Parameters

Input Power	100~240VAC max. /50/60 Hz
Frequency/Protocol:	2.4-2.4835 GHz/ IEEE 802.15.4/ZigBee Pro
Channel:	16
Power Consumption:	1W (14mA/230V/50Hz)
Communication Range:	150 meters (line of sight)
Operating Ambient:	Temperature -10~50℃ Humidity max. 5~85%RH
Product dimension:	Front panel φ90mm, thickness 22.5mm, back cover 51mm * 45mm, depth 33.5mm.

Wireless Power Meter

Z821



Z-821 is a compact-size multi-port CT type power meter. It is the only one for independent monitoring and measurement of up to 7 single-phase AC outlets in the world. With high measurement accuracy $\pm 1\%$, Z-821 has the most advanced performance and is an ideal product to know the whole power and energy consumption of the building; even to measure every sub power meter to recognize how much energy is consumed by air conditioner, lighting, swimming pool, or appliances in your home/office. Based on ZigBee technology, users are able to acquire the energy data wirelessly. Z-821's smart and Green design helps people save power and money much easier.

Main Features

- Device type: Consumption Awareness
- Protocol based on ZigBee HA V1.1 or V1.2
- 2.4GHz ISM band transceiver; total 16 channels
- Monitor and measure up to 7 single-phase AC outlets
- Compact-size
- Easy operation and setting

Technical Parameters

Power Supply:	100~240VAC, 50/60Hz
Frequency:	2.4 ~ 2.4835 GHz
Channel:	16
Power Consumption:	18mA/230VAC, 1.2W
Communication Range:	Up to 280 meters (line of sight)
Basic accuracy:	< $\pm 1\%$
Measuring Range:	7 single CTs; 60A x 1/ 30A x 6
Data measurement:	Current/ Voltage/ Power/ Energy
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	82mm x 70mm x 17mm

Touch Panel Switch with Consumption Monitoring

Z825A/B/C



Z825A/B/C is a touch panel wall switch. It allows users to turn On/Off the electrical appliances which connect with its AC outputs. Based on ZigBee technology, users are also able to control the switches wirelessly using paired On/Off ZigBee enabled remote controller. Z825A/B/C is equipped with energy consumption monitoring feature. It helps people manage and save the power spending much easier.

Product Model

Z825A: single gang

Z825B: two gang

Z825C: three gang

Main Features

- Device type:
Mains Power Outlet (Z825A)
Mains Power Outlet and On/Off Output (Z825B/C)
- Protocol based on ZigBee HA V1.1 or V1.2
- Standard Junction Box
- Capacitive touch panel
- Can be controlled by any ZigBee remotes
- Easy installation and configuration



Z828A/B/C



Technical Parameter

Power Supply:	100~240VAC, 50/60Hz
Frequency:	2.4~2.4835 GHz
Resistive Load:	8A/250VAC; P:2000W
Inductive Load:	5A/250VAC; P:1250W
Consumption monitoring range:	100mA~8A with $\pm 1\%$ accuracy
Communication Range:	Up to 210 meters (line of sight)
Operating Ambient :	Temperature -10~50°C Humidity 5~85%RH
Product Dimension:	Panel 86 × 86 × 9 (mm) Back cover 68 × 58 × 25 (mm)

Dimmable Touch Panel Switch with Consumption Monitoring

Z825D/E



Z825D/E is a dimmable touch panel wall switch. It allows users to turn On/Off or level-control the electrical appliances which connect with its AC outputs. Based on ZigBee technology, users are also able to control the switches wirelessly using paired On/Off/Level-control ZigBee enabled remote controller. Z825D/E is equipped with energy consumption monitoring feature. It helps people manage and save the power spending much easier.

Product Model

Z825D: single gang

Z825E: two gang

Main Features

- Device type: Dimmer Light
- Protocol based on ZigBee HA V1.1 or V1.2
- Standard Junction Box
- Capacitive touch panel
- Can be controlled by any ZigBee remotes
- Easy installation and configuration



Z828 D/E



Technical Parameter

Power Supply:	100~240VAC, 50/60Hz
Frequency:	2.4~2.4835 GHz
The maximum electrical load:	a. Resistive Load (incandescent light bulb): 3A/600W (single gang) & 2A/300W (two gang) b. Dimmable fluorescent lamp or dimmable LED lamp: 100W (Parallel connection is not recommended) c. DO NOT connect coil transformer for dimming
Consumption monitoring range:	100mA~4A with $\pm 1\%$ accuracy
Communication Range:	Up to 120 meters (line of sight)
Operating Ambient :	Temperature -10~50°C Humidity 5~85%RH
Product Dimension:	Panel 86 × 86 × 9 (mm) Back cover 68 × 58 × 25 (mm)

Wireless Touch Panel Single Scene Selector

Z825F



Z825F, a touch panel single scene selector, acts as a Router Device in ZigBee network. It is a 1-key selector touch panel and allows people to perform the scene controls. Users could setup the scene via its Add Group, Store Scene, and Recall Scene features. Z825F is based on ZigBee protocol and suitable for ZigBee HA Profile network.

Main Features

- Device type: Scene selector
- Protocol based on ZigBee HA V1.1 or V1.2
- Standard Junction Box
- Capacitive touch panel
- Easy installation and configuration



Z828 F



Technical Parameter

Power Supply:	100~240VAC, 50/60Hz
Frequency:	2.4~2.4835 GHz
Channel:	16
Consumption:	0.4W (7mA@230V 50Hz)
Communication Range:	Up to 210 meters (line of sight)
Operating Ambient :	Temperature -10~50°C Humidity 5~95%RH
Product Dimension:	Front Panel: 86 x 86 x 9mm Rear Housing: 68 x 58 x 25mm

Wireless Touch Panel Double Scene Selector

Z825G



Z825G, a touch panel double scene selector, acts as a Router Device in ZigBee network. It is a 2-key selector touch panel and allows people to perform the scene controls. Users could setup the scene via its Add Group, Store Scene, and Recall Scene features. Z825G is based on ZigBee protocol and suitable for ZigBee HA Profile network.

Main Features

- Device type: Scene selector
- Protocol based on ZigBee HA V1.1 or V1.2
- Standard Junction Box
- Capacitive touch panel
- Easy installation and configuration



Z828 G



Technical Parameter

Power Supply:	100~240VAC, 50/60Hz
Frequency:	2.4~2.4835 GHz
Channel:	16
Consumption:	0.4W (7mA@230V 50Hz)
Communication Range:	Up to 210 meters (line of sight)
Operating Ambient :	Temperature -10~50°C Humidity 5~95%RH
Product Dimension:	Front Panel: 86 x 86 x 9mm Rear Housing: 68 x 58 x 25mm

Wireless Touch Panel Triple Scene Selector

Z825H



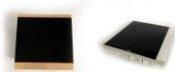
Z825H, a touch panel triple scene selector, acts as a Router Device in ZigBee network. It is a 3-key selector touch panel and allows people to perform the scene controls. Users could setup the scene via its Add Group, Store Scene, and Recall Scene features. Z825H is based on ZigBee protocol and suitable for ZigBee HA Profile network.

Main Features

- Device type: Scene selector
- Protocol based on ZigBee HA V1.1 or V1.2
- Standard Junction Box
- Capacitive touch panel
- Easy installation and configuration



Z828 H



Technical Parameter

Power Supply:	100~240VAC, 50/60Hz
Frequency:	2.4~2.4835 GHz
Channel:	16
Consumption:	0.4W (7mA@230V 50Hz)
Communication Range:	Up to 210 meters (line of sight)
Operating Ambient :	Temperature -10~50℃ Humidity 5~95%RH
Product Dimension:	Front Panel: 86 x 86 x 9mm Rear Housing: 68 x 58 x 25mm

Wireless Touch Panel Scene Selector & Mode Selector

Z825I



Z825I, a touch panel scene selector & mode selector, acts as a Router Device in ZigBee network. It is a 6-selector touch panel and allows people to perform the scene controls or mode controls. Users could setup 6 scenes via its Add Group, Store Scene, and Recall Scene features. Z825I is based on ZigBee protocol and suitable for ZigBee HA Profile network.

Main Features

- Device type: Scene & mode selector
- Protocol based on ZigBee HA V1.1 or V1.2
- Standard Junction Box
- Capacitive touch panel
- Easy installation and configuration



Z828 I



Technical Parameter

Power Supply:	100~240VAC, 50/60Hz
Frequency:	2.4~2.4835 GHz
Channel:	16
Consumption:	0.4W (7mA@230V 50Hz)
Communication Range:	Up to 150 meters (line of sight)
Operating Ambient :	Temperature -10~50°C Humidity 5~85%RH
Product Dimension:	Panel 86 × 86 × 9 (mm) Back cover 68 × 58 × 25 (mm)

Wireless Touch Panel Mains Power Outlet & Scene Selector

Z825J



Z825J, a touch panel mains power outlet & scene selector, acts as a Router Device in ZigBee network. Its 3-switch & 3-selector touch panel allows people to perform the on/off controls or scene controls. Users could setup up to 12 scenes or modes. Z825J is based on ZigBee protocol and suitable for ZigBee HA Profile network.

Main Features

- Device type: Mains Power Outlet & scene selector
- Protocol based on ZigBee HA V1.1 or V1.2
- Standard Junction Box
- Capacitive touch panel
- Easy installation and configuration



Z828J



Technical Parameter

Power Supply:	100~240VAC, 50/60Hz
Frequency:	2.4~2.4835 GHz
Resistive Load:	8A/250VAC; P:2000W
Inductive Load:	5A/250VAC; P:1250W
Consumption monitoring range:	100mA~8A with ± 1% accuracy
Communication Range:	Up to 210 meters (line of sight)
Operating Ambient :	Temperature -10~50°C Humidity 5~85%RH
Product Dimension:	Panel 86 × 86 × 9 (mm) Back cover 68 × 58 × 25 (mm)

Wireless Touch Panel & Scene Selector

Z825K



Z825K, a touch panel mains power outlet & scene selector, acts as a router in ZigBee network. There are up to 3 relay output modules allowing users to remote control the switch. There are 6 touch panels allowing users to perform the on/off controls, scene controls or power meters. Users are able to check the data of current, voltage, power and energy via paired MainPowerOutlet controller. Each end point controls up to 4 sences or 4modes via Scene Selector & Mode Selector.



Z828 K



Product Type

*40 types of configuration including toggle, dimmer and curtain functions.






















































































Main Features

- Protocol based on IEEE 802.15.4 / ZigBee ProTM
- Support up to 6 end points (EP)
- Support up to 3 output relay controls
- Wireless controller types: On/Off Switch, Level Control Switch, Scene Selector&Mode Selector, Door Lock Controller, Color Dimmer Switch, Windows Covering Controller
- Local controller types: On/Off OutPut , MainPower Outlet





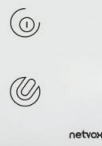


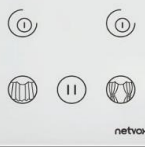

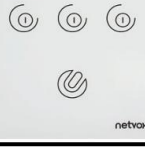



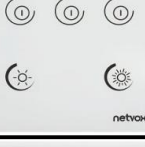
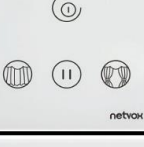

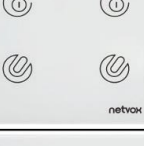

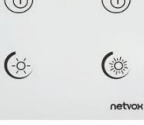
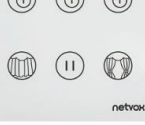
Technical Parameter

Power Supply:	100~240VAC, 50/60Hz
Frequency:	2.4GHz ISM band transceiver; total 16 channels
Resistive Load:	8A/250VAC; P:2000W
Inductive Load:	5A/250VAC; P:1250W
Consumption monitoring range:	100mA~8A with ± 1% accuracy
Communication Range:	Up to 210 meters (line of sight)
Operating Ambient :	Temperature -10~50℃ Humidity 5~85%RH
Product Dimension:	Panel 86 × 86 × 9 (mm) Back cover 68 × 58 × 25 (mm)

Z825K Icons are Available for Custom Design

Model#	Outline	Control type	Function type	Model#	Outline	Control type	Function type
Z825K011	 <small>netvax</small>	1 remote control	1 toggle	Z825K051	     <small>netvax</small>	5 remote controls	5 toggle
Z825K021	  <small>netvax</small>	2 remote controls	2 toggle	Z825K058	     <small>netvax</small>		1 toggle + 2 dimmer
Z825K022	  <small>netvax</small>		1 dimmer	Z825K059	     <small>netvax</small>		3 toggle + 1 dimmer
Z825K031	   <small>netvax</small>	3 remote controls	3 toggle	Z825K05A	     <small>netvax</small>		2 toggle + 1 curtain
Z825K033	   <small>netvax</small>		1 toggle+1 dimmer	Z825K05B	     <small>netvax</small>		1 dimmer + 1 curtain* (open, close, stop)
Z825K035	   <small>netvax</small>		1 Curtain* (open, close, stop)	Z825K061	      <small>netvax</small>	6 remote controls	6 toggle
Z825K041	    <small>netvax</small>	4 remote controls	4 toggle	Z825K062	      <small>netvax</small>		3 dimmer
Z825K042	    <small>netvax</small>		2 dimmer	Z825K065	      <small>netvax</small>		2 curtain* (open, close, stop)
Z825K046	    <small>netvax</small>		2 toggle + 1 dimmer	Z825K06C	      <small>netvax</small>		2 toggle + 2 dimmer
Z825K047	    <small>netvax</small>		1 toggle + 1 curtain* (open, close, stop)	Z825K06D	      <small>netvax</small>		3 toggle + 1 curtain* (open, close, stop)

Z825K Icons are Available for Custom Design

Model#	Outline	Control type	Function type	Model#	Outline	Control type	Function type
Z825K06E	 netvax	6 remote controls	4 toggle + 1 dimmer	Z825K211	 netvax	2 local & 1 remote	2 local + 1 toggle
Z825K06F	 netvax		1 toggle + 1 dimmer + 1 curtain	Z825K231	 netvax	2 local & 3 remote	2 local + 1 toggle
Z825K111	 netvax	1 local & 1 remote	1 local + 1 toggle	Z825K233	 netvax		2 local + 1 toggle + 1 dimmer
Z825K121	 netvax	1 local & 2 remote	1 local + 2 toggle	Z825K235	 netvax		2 local + 1 curtain* (open, close, stop)
Z825K122	 netvax		1 local + 1 dimmer	Z825K311	 netvax	3 local & 1 remote	3 local + 1 toggle
Z825K131	 netvax	1 local & 3 remote	1 local + 3 toggle	Z825K321	 netvax	3 local & 2 remote	3 local + 2 toggle
Z825K133	 netvax		1 local + 1 toggle + 1 dimmer	Z825K322	 netvax		3 local + 1 dimmer
Z825K135	 netvax		1 local + 1 curtain* (open, close, stop)	Z825K331	 netvax	3 local & 3 remote	3 local + 3 toggle
Z825K221	 netvax	2 local & 2 remote	2 local + 2 toggle	Z825K333	 netvax		3 local + 1 toggle + 1 dimmer
Z825K222	 netvax		2 local + 1 dimmer	Z825K335	 netvax		3 local + 1 curtain* (open, close, stop)

Regulation of Defining Z825K Model Name

A825K①②③

- ① 0: no local, 1: 1 local switch, 2: 2 local switches, 3: 3 local switches
- ② 1: 1 remote control, 2: 2 remote controls, 3: 3 remote controls
4: 4 remote controls, 5: 5 remote controls, 6: 6 remote controls
- ③

1: 1 toggle	9: 3 toggle +1 dimmer
2: 1 dimmer	A: 2 toggle + 1 curtain
3: 1 toggle + 1 dimmer	B: 1 dimmer + 1 curtain
5: 1 curtain (open,close, stop)	C: 2 toggle + 2 dimmer
6: 2 toggle + 1 dimmer	D: 3 toggle + 1 curtain
7: 1 toggle + 1 curtain	E: 4 toggle + 1 dimmer
8: 1 toggle + 2 dimmer	F: 1 toggle + 1 dimmer + 1 curtain

Wireless Six Way Scene Selector with RS485 Interface

Z825L



Z825L, a Selector & Mode selector, acts as a router in ZigBee network.

There are 6 touch panels allowing users to perform Selector & Mode controls .Each end point controls up to 4 sences or 4modes via Scene Selector & Mode Selector.

Z825L carries RS485-Zigbee transparent transmission function.

Main Features

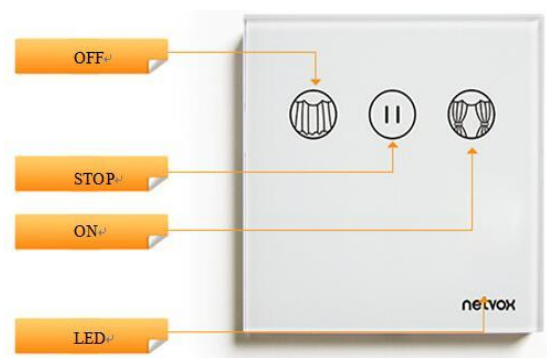
- Protocol based on IEEE 802.15.4 / ZigBee ProTM
- Support up to 6 end points (EP)
- Wireless controller types:Scene Selector&Mode Selector

Technical Parameter

Power Supply:	100~240VAC, 50/60Hz
Frequency:	2.4GHz ISM band transceiver; total 16 channels
Communication Range:	Up to 210 meters (line of sight)
Operating Ambient :	Temperature -10~50℃ Humidity 5~85%RH
Product Dimension:	86mm x 86mm x 9mm

Wireless AC Curtain Control Touch Switch

Z825N



Z825N is a highly reliable indoor curtain controller carrying 2.4GHz IEEE802.15.4 standard chip. It is communicable with ZigBee routers, coordinator, and end devices and it also works as a router allowing other WSN devices to join in the network.

Z825N carries 2-way relay switch. Users can send curtain switch command through touch panel or APP to control forward and inverse. In addition, Z825N can check if motor turns to right place and carry learning functions.

Main Features

- Protocol based on IEEE802.15.4/ZigBee Pro™
- Built-in ZigBee router feature.
- Support wireless or manual operation
- Carry storage chip to memorize open/close history
- Capacitive touch panel control

Technical Parameters

Input Power	100~240VAC max. /50/60 Hz
Resistive Load:	16A/250VAC; P:4000VA
Inductive Load:	8A/220VAC; P:1760VA , COSφ=0.4
Motor Load:	1.5HP/240VAC
Incandescent/ Fluorescent / Halogen gold:	3000W/220VAC
Frequency/Protocol:	2.4~2.4835 GHz/ IEEE 802.15.4/ZigBee Pro
Communication Range:	Up to 210 meters
Operating Ambient:	Temperature -10~50℃ Humidity max. 5~85%RH
Product Dimension:	Front : 86mm x 86mm x9mm Back : 68mm x 58mm x25mm
Relay On/Off Life Time	100000 times (Resistive Load)
Relay Type	Magnetic latching relay

Wireless One Gang Touch Switch / Single Live Wire

Z826F



Z826F, a touch panel single-wire wireless control outlet, acts as a Router Device in ZigBee network. It is one touch panel and allows people to perform the switch control.Z826F is based on ZigBee protocol and suitable for ZigBee HA Profile network.

Main Features

- Device type: On/Off Outlet
- Protocol based on ZigBee HA V1.1 or V1.2
- Standard Junction Box
- Capacitive touch panel
- Easy installation and configuration

Technical Parameter

Power Supply:	100~240VAC, 50/60Hz
Frequency:	2.4~2.4835 GHz
Channel:	16
Consumption:	0.07W/1.5mA
Communication Range:	Up to 210 meters (line of sight)
Operating Ambient :	Temperature -10~50℃ Humidity 5~95%RH
Product Dimension:	Front Panel: 86 x 86 x 9mm Rear Housing: 68 x 58 x 25mm

Wireless Two Gang Touch Switch / Single Live Wire

Z826G



Z826G, two touch panel single-wire wireless control outlet, acts as a Router Device in ZigBee network. It is one touch panel and allows people to perform the switch control. Z826G is based on ZigBee protocol and suitable for ZigBee HA Profile network.

Main Features

- Device type: On/Off Outlet
- Protocol based on ZigBee HA V1.1 or V1.2
- Standard Junction Box
- Capacitive touch panel
- Easy installation and configuration

Technical Parameter

Power Supply:	100~240VAC, 50/60Hz
Frequency:	2.4~2.4835 GHz
Channel:	16
Consumption:	0.07W/1.5mA
Communication Range:	Up to 210 meters (line of sight)
Operating Ambient :	Temperature -10~45°C Humidity 5~85%RH
Product Dimension:	Front Panel: 86 x 86 x 9mm Rear Housing: 68 x 58 x 25mm

Wireless Multifunctional Control Box

Z831



Z-831X
多功能控制盒

Z831 as a wireless switch device based on ZigBee protocol, it can communicates with routers, coordinator, and end devices in the network. There are 3 relay output modules with each device type allowing users to remote control the switch. Z831 is also a router device which permits other devices to join the network.

Main Features

- Device type: M1-Curtain switch /M2-Curtain switch / M3-On Off Output x3
- Protocol based on IEEE 802.15.4 / ZigBee ProTM
- Three-output relay controls individual device
- Local control for input port (3 switches)

Technical Parameters	
Power supply:	100~240VAC 50/60 Hz
Relay 1 output :	Resistive Load: AC250V/3A 、DC30V/3A Inductive Load: Cosφ=0.4,L/R=7ms
Relay 2 output :	Resistive Load: AC250V/10A 、DC30V/10A Inductive Load: Cosφ=0.4,L/R=7ms
Relay 3 output :	Resistive Load: AC250V/10A 、DC30V/10A Inductive Load: Cosφ=0.4,L/R=7ms
Relay type :	Monostable relay
Switch life time :	100,000 times (resistive load, room temp., 1.5s on, 1.5s off)
Consumption monitoring range:	Up to200 m
Frequency:	2.4GHz ISM band transceiver; total 16 channels
Operating Ambient :	Temperature -10~50℃ Humidity 5~85%RH
Antenna:	Bulid-in
Product Dimension:	66mmx 47mmx21mm

Wireless Switch Control Unit

Z831RT



The Z831RT is a GPIO extender that follows the IEEE802.15.4 standard and communicates with end devices in the ZigBee network. Z831RT has three power input modes, one output modes, and is friendly to connect different forms of power and load.

Main Features

- Utilizes 2.4GHz ISM band; up to 16 channels
- Protocol based on IEEE 802.15.4 / ZigBee ProTM
- Up to 210 meters wireless transmission range in non obstacle space
- Carrying a set of relay on/off switch with dry output

Technical Parameters

Rated input voltage:	2 * AAA alkaline batteries, +5 / 12V power supply
Static operating current :	40mA (no relay action)
Dynamic operating current :	70mA
5 / 12V relay switch load character :	Resistive Load: 5A (actually limited by the maximum load of the power supply itself) Inductive load: 2A (PF = 0.4 L / R = 7MS) (actually limited by the maximum load of the power supply itself)
Relay coil power consumption :	200mW
Relay Type :	Monostable Relay
3V triode switch load character :	2A (actually limited by the maximum load of the power supply itself)
Consumption monitoring range:	Up to210 m
Switch life time :	100,000 times (resistive load, on/off frequency 1800times/hr)
Operating Ambient :	Temperature -10~50℃ Humidity 5~85%RH
Antenna:	Bulid-in
Product Dimension:	66mm× 50mm×21mm

Environmental Monitoring

Wireles Smart Thermostat

Z869



Z-869 smart thermostat uses electronic logic circuit to compare the room temperature with setting temperature, and according to results to control water valves, fans, so that the room temperature stays constant, in order to achieve temperature control and create a comfortable environment. Widely used in commercial, industrial, hospital, hotel, civil construction and villa group for heating, cooling or controlling to fan at the end of central air conditioning and the water valve anually.

Z-869 can be controlled locally with the touch screen or through the air command to achieve the relevant operations.

Main Features

- Compliant with ZigBee Pro™ protocol specification for ZigBee HA network
- Support binding with central air conditioning, water to warm system with dual terminal control
- 3.5-inch TFT LCD with capacitive touch screen
- Built-in sensor (temperature and humidity), real-time monitoring for room temperature and humidity

Technical Parameter	
Power Supply:	100-240VAC 50/60Hz
Consumption:	23.5mA/220VAC/2.1W
Standy Current:	11.5mA/220VAC/1W
Temperature Measurement Range:	-10 ~ 50℃ , ±0.4℃
Humidity Measurement Range:	0 ~ 80%RH , ± 3%RH
Temperature Control Range:	15 ~ 31 ℃ , ±0.5℃
Loading Property:	Resistive load: 8A/250VAC; P: 2000W
Communication Range:	210 meters
Dimension:	86*86*34 (mm)
Working Temperature:	-10℃ ~ 50℃
Storage Temperature:	-40℃ ~ 85℃
Environment Humidity:	< 90%RH

Humidity and Temperature Sensor

Z711/Z712/Z713



The humidity/temperature sensor series are based on ZigBee Home Automation standard. It is used for detecting indoor and outdoor ambient and sends the data to a control center via wireless network. Z712 and Z713 are enclosed within a splash proof housing. With a solar panel charger, Z713 is a maintenance-free sensor. Z711/Z712/713 do not need any wiring for installation. It only needs 2 AA batteries to power. It can be mounted on wall and everywhere. Humidity and temperature data can also be displayed on control center, user can check on the data via APP.

Product Model

Z711 : Indoor
Z712 : Outdoor
Z713 : Outdoor *

*incl. solar panel charger

Main Features

- Device type: Temperature Sensor
- Protocol based on ZigBee HA
- High accuracy +/- 0.5 °C, +/- 4.5%RH
- Indoor and outdoor type available
- Compact size
- Low power consumption
- Low battery alert

Technical Parameters

Power Supply:	Z711/Z712: 2 AA batteries Z713:Ni-MH rechargeable batteries
Communication Range:	Z711/Z712/Z713: Up to 195 meters (line of sight)
Monitoring Method:	NDR (Non-Destructive)
Detecting Range:	Temperature -10~50°C Humidity max. 5~95%
Consumption @transmitting mode:	Z711 /Z712:<40mA; Z713: 120mA
@receiving mode:	Z711 /Z712:<40mA; Z713: 120mA
@standby mode:	Z711 /Z712:<2uA; Z713: <15uA
Accuracy:	Temperature : +/- 0.5°C Humidity : +/- 4.5%
Product Dimension:	Z711:112mm x 34mm x 17mm Z712:222mm x 130mm x 195mm Z713:234mm x 155mm x 217mm

Humidity and Temperature Sensor with LCD Display

Z716A/B



Z716 is a temperature and humidity display.
The data can be sent to a data center wirelessly.

Z716A detects temperature and humidity

Z716B detects temperature only.

Z716 is designed based on ZigBee Home Automation profile and utilizes ZigBee wireless transmission without the need of cabling. Z716 uses 2 AA batteries.

Product Model

**Z716A: Temp/Humidity Sensor
& Reports :**

Z716B: Temp Sensor & Reports

Main Features

- Device type : Temperature Sensor
- Protocol based on ZigBee HA
- High accuracy +/- 0.5 °C, +/- 4.5%RH
- Compact size
- Low power consumption
- Low battery alert

Technical Parameters

Communication Range:	Up to 180 meters (line of sight)
Power Supply:	2 x AA batteries
Testing Employed:	NDR (Non-Destructive Read)
Detecting Range:	Temperature -10~50°C Humidity max. 5~95%
Consumption @transmitting mode:	<40mA
@receiving mode:	<40mA
Accuracy:	Temperature : +/- 0.5°C Humidity : +/- 4.5%
Product Dimension:	112mm x 34mm x 17mm

Portable ZigBee Field Signal Meter

Z716S



Z716S is a new developing device based on ZigBee technology to detect the signal in ZigBee network only instead of joining in ZigBee network.

ZigBee is a short range wireless transmission technology based on IEEE802.15.4 standard and supports multiple network topologies such as point-to-point, point-to-multipoint, and mesh networks. It is defined for a general-purpose, cost-effective, low-power-consumption, low-data-rate, and easy-to-install wireless solution for industrial control, embedded sensing, medical data collection, smoke and intruder warning, building automation and home automation, etc.

Z716S is designed for ZigBee HA standard with wireless advantages. To power on Z716S, users only need to load two AA batteries.

Main Features

- Protocol based on IEEE802.15.4/ZigBee ProTM
- Utilizes 2.4GHz ISM band, total 16 Channels
- 2* AA batteries power supply
- Standby current: 0.6uA-1uA
- LCD Display

Technical Parameters

Communication Range:	Up to 210 meters (line of sight)
Power Supply:	2 x AA batteries
Frequency:	2.4-2.4835GHz
Detecting Range:	Total 16 Channels (ISM 11th-26th channel)
Antenna type:	Build-in antenna
Consumption @transmitting mode:	7dBm (Max.)
Working Temperature:	10 °C - 50 °C
Storage Ambient:	Temperature -40°C - 85 °C Humidity 5% - 95%RH
Product Dimension:	112mm x 34mm x 17mm

Far Range Ambient Sensor

Z725A/R



Z725 series are equipped with ZigBee router for extending coverage area. They contain high solar battery capacity to ensure zero downtime operation.

Z725A has built-in temperature and humidity sensor which report readings.

Z725R is a dedicated range extender router without sensors.

Product Model

Z725A: conventional ambient sensing
Z725R: outdoor ZigBee range extender only

Main Features

- Z725A: High accuracy $\pm 0.5^{\circ}\text{C}$, $\pm 4.5\%\text{RH}$
- Protocol based on ZigBee
- Equipped with solar powered battery
- Low battery alert

Technical Parameters

Communication Range:	Up to 600 meters
Power Supply:	2 x 10AH Ni-MH rechargeable batteries Solar Battery: 5W/4VDC/1.25A Solar panel power supply 3.5 ~ 5.5 VDC
Device Operating Power:	2.4VDC ~3.0VDC
Testing Employed:	NDR (Non-Destructive Read)
Detecting Range:	Temperature -10~50°C Humidity max. 5~95%
Consumption @transmitting mode:	120mA
@receiving mode:	120mA
Accuracy:	Temperature : $\pm 0.5^{\circ}\text{C}$

Remote

4-key Remote

Z501A/B/C



Z501 is a 4-key remote based on ZigBee HA standard. It can join in ZigBee network and bound with other device. It wirelessly controls the devices bound with itself by transmitting and receiving ZigBee control signal. Z501 is equipped with the newest energy saving technology, 1 button battery can last for years. It is based on ZigBee HA standard and suitable for joining in any ZigBee HA standard network.

Product Model

- Z501A:** up key, down key, on/off, emergency, arm/disarm
- Z501B:** 2 pairs of on/off switches
- Z501C:** Dimmer Switch & 2 toggle buttons

Main Features

- Device type :
 - A : Level control/ IAS Ancillary Control (0001/0401) Level control /Emergency/ arm & disarm
 - B : On/Off Switch (0000) switch function
 - C : Level control (0001) switch function/Level control function
- Protocol based on ZigBee HA
- 4-key smart operation
- Low power consumption
- Wirelessly control paired device.
- LED indication

Technical Parameters

Power supply:	3V CR2032 button cell battery
Protocol:	IEEE 802.15.4 / ZigBee Pro
RF parameters:	IEEE802.15.4 PHY/MAC support 2.4-2.4835 GHz
Standby Current:	0.8uA
Button quantity:	4
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Status Indication:	1 LED
Communication Range:	Up to 150 meters
Product Dimension:	53mm × 35mm × 15.2mm

Four- Button Remote Controller

Z502A/B/C/D/G



Z502X is based on ZigBee HA profile standard . Preset scenario with Z502X, it can control devices including dimming, power socket, curtains, emergency button function, arm and disarm security system. User can designate and program each key based on their needs. Z502X is equipped with the low power consumption technology.

Product Model

- Z502A: Up key, down key, on/off, emergency, arm/disarm
- Z502B: 2 pairs of on/off switches
- Z502C: 2 sets controls,
1.(Dimmer Switch + On/Off Toggle)
2. On/Off Toggle
- Z502D: 1 set of
(Dimmer Switch + On/Off Switch)
- Z502G: 3 mode selectors, 1 emergency button

Main Features

- Device type : IAS ACE / Remote Control
- Protocol based on IEEE802. 15. 4 / Zigbee Pro™
- Long battery life
- Innovative Smart Home remote for configuring and controlling local smart home appliances.
- Preset scenario button to assist the security system and press emergency button

Technical Parameters

Communication Range:	Up to 210 meters (line of sight)
Power Supply:	3V CR2450 button cell battery
Consumption @receiving mode:	28 mA
Consumption @transmitting mode:	33mA/43mA (normal/boost mode)
Consumption @standby mode:	<1.5 uA
Operating Ambient:	Temperature -10~50℃
	Humidity max. 95%RH
Product Dimension:	48mm× 32mm× 10mm

Wireless Remote

Z503



Z503 is a the programmable multifunctional remote based on ZigBee HA profile standard . It can preset scenario, turn off all devices, dimming, control power socket, control curtain, delay control, emergency button function, arm and disarm security system. User can designate and program each key based on their needs.

Z503 is equipped with the latest energy saving technology, one button battery can last for months. It is bases on ZigBee HA standard and is suitable for joining in any ZigBee HA standard network

Main Features

- Device type : IAS ACE/Remote Control
- Protocol based on ZigBee HA
- Long battery life
- Innovative Smart Home remote for configuring and controlling local smart home appliances.
- Control all you can see
- Preset scenario, turn off all devices, dimming, control power socket, control curtain, delay control, emergency button function, arm and disarm security

Technical Parameters

Power Supply:	3V CR2032 button cell battery
Communication Range:	Up to 280 meters (line of sight)
Protocol:	IEEE 802.15.4 /ZigBee Pro
Consumption:	@receiving mode 34mA @transmitting mode 34mA @standby mode 2uA
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	121.4mm × 45mm × 13mm

In-Home Display

Z508



Z508 is an in-home display for smart home, household energy monitoring and home security. Features comprise:

1. Calculates energy usage per room and logs into day/week/month.
2. Home security central capable of being armed, disarmed and log history
3. Smart home control for comfort
4. Room temperature & humidity log and display
5. Date & time display

Main Features

- Protocol based on ZigBee HA
- LCD Display
- Calculates & Display Household Consumption
- Manage security nodes and event log
- Smart schemes setting and application
- Temperature & humidity acquisition
- Date & time display
- Built-in CIE function (security central)

Technical Parameters

Power Supply	5VDC/ 500mA or 2 x AA size backup battery
Frequency/Protocol:	2.4-2.4835 GHz/ IEEE 802.15.4/ ZigBee Pro
Communication Range:	Up to 100 meters indoor
Consumption:	@standby mode 50mA max. @transmitting mode 130mA max.
Operating Ambient:	Temperature -20~70°C Humidity max. 95%RH
Product dimension:	116mm x 103mm x 19mm

Smart Door Lock

ZB05



Digital Door Lock, model ZB05, is so designed to fit for most home, office and hotel room security. The door lock can be unlocked by conventional key, pass-code authentication and key card. The model ZB05 is built on Wireless ZigBee Pro based SoC chip. It communicates with its router or coordinator in the ZigBee network which realizes wireless and remote access control user experience.

Main Features

- ZigBee Smart network control supported
- Self-check
- Malfunctions and low battery level notification
- Lockout timer preventing malicious user
- Door entry logger
- Protocol based on ZigBee HA
- Fire event notification
- Programmable auto-lock delay time.

Technical Parameter

Power Supply:	8 x AA alkaline battery
Protocol:	IEEE 802.15.4/ ZigBee Pro
RF parameters:	2.4-2.4835 GHz Tx power: 3 dBm (Max.) Rx sensitivity: -100 dBm
Standby Current:	<500uA @6V
Low Power Notification:	@4.3V
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Material:	ZN/ AL/ PC
Communication Range:	Up to 190 meters (line of sight)
Product Dimension:	78mm(W) x 280mm(L) x 34mm (H)

Access Control Management

Smart Door Lock

ZB05A



Netvox ZB05A, a smart door lock, is so designed for home, office, and hotel room security. ZB05A supports multi-way accessibilities. Users are able to lock/unlock it using mechanical override key, access code, fingerprint, RFID card, or remote control. Based on ZigBee, users could wirelessly monitor and manage the door lock.

Main Features

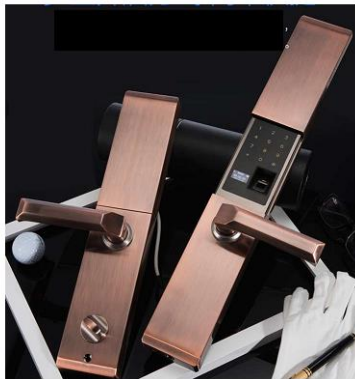
- Smart network control supported
- Protocol based on ZigBee HA V1.1 or V1.2
- Automatic system check
- Malfunctions and low battery level notification
- Lockout timer preventing malicious user
- Door entry logger
- Voice notifications

Technical Parameter

Power Supply:	8 x AA alkaline battery
Communication Range:	Up to 250 meters (line of sight)
Protocol:	IEEE802.15.4/ ZigBee Pro
Frequency:	2.4-2.4835 GHz
RF Parameters:	Tx power: 7 dBm (Max.) Rx sensitivity: -101 dBm
Low Power Notification:	@4.8V
Operating Ambient:	Temperature -10~50℃ Humidity max. 90%RH
Material:	Zinc alloy
Weight:	7Kg
Product Dimension:	354mm x 160mm x 79mm

Wireless Door Lock

ZB09



ZB09 is a smart digital door lock product used in home, office, hotel etc.

In addition, ZB09 internally integrates chip modules that conform to the ZigBee Pro™ wireless protocol and can communicate with routers and coordinators of ZigBee networks. Based on ZigBee, users could wirelessly monitor and manage the door lock.

Main Features

- Support mechanical key, password, MF card, fingerprint, wireless and other unlock methods.
- Secret anti-peeping function
- Real time clock: recording the history of locking/unlocking via ZigBee
- Notification : Low battery/Error password/Door lock tongue alarm

Technical Parameter	
Power Supply:	4 AA battery
Frequency:	2.4-2.4835 GHz
Protocol:	IEEE802.15.4 / ZigBee Pro
RF Parameters:	Tx power: 7 dBm (Max.) Rx sensitivity: -101 dBm
Operating Ambient:	Temperature -30~60°C Humidity 20~93%RH
Communication Range:	Up to 150 meters
Material:	Zinc alloy
Product Dimension:	480mm×75mm×80mm

RF Module

Z100B



Z100



Z100BI



Z100BC

The ZigBee RF module Z100B offered by NETVOX is low power consumption, 2.4GHz ISM band transceiver based on the Ember357 single chip ZigBee Pro™ /IEEE 802.15.4 solution. The Z100B comes in three different versions. The Z100BC, with on-board chip antenna, and the Z100B / Z100BI provided with an RF launcher / i-PEX connector for attachment of an off-module antenna.

The Z100B is designed to be SMD-mounted onto a host PCB. SMD-mounting provides the best RF performance at the lowest cost. Additionally the Z100B is designed to occupy minimal board space on the host PCB, which already includes plentiful interfacing ports and power management circuits. So it can be easily integrated into other device without the need for RF experience and expertise.

Product Version

Z100BC

Equipped with Chip-antenna

Z100BI

Equipped with IPEX connector

Main Features

- Safety and security
- Wireless Telemetric Application
- Asset management
- Home/Building Automation
- Wireless RS-232/485 Networking

Technical Parameters

Output Power:	3 dBm/7dBm(normal / boost mode) (MAX)
Receiver Sensitivity:	-101 dBm
Outdoor range:	300 m / 600 m (line of sight)
Data Transmission Rate:	250 Kbps
Support Voltage:	2.1 to 3.6 V DC
Consumption:	@receiving mode 28mA @transmitting mode 33 mA / 43 mA (normal / boost mode) @Normal Current (no Radio) 8.8mA @Deep Sleep (including 32.768kHz oscillator)
Operating Ambient:	Temperature -20~85°C
Product Dimension:	16mm × 22mm × 3.7mm

ZigBee Module

RF Module

Z100A



Z100A is the ZigBee Pro/IEEE 802.15.4 solution; cost effective and low development cost. It minimizes development effort and skips the complicated RF design stage. Two module types are available: Z100AC with chip-antenna and Z100AI IPEX connector.

*Modules come unloaded or flashed with firmware of ZigBee Coordinator or Router.

Product Version

Z100AC V1.1
Equipped with Chip-antenna
Z100AI V1.1
Equipped with IPEX connector

Main Features

- High performance and low power consumption 8051 MCU
- 2.4 GHz IEEE 802.15.4 standard transceiver
- Excellent receiver sensitivity
- Wide Power Voltage Range (2.0V - 3.6V DC)
- Digital RSSI/ LQI support and strong DMA function
- Equipped with battery detection and temperature sensor
- Two programmable USART available, supports several serial protocol.
- Equipped with 1 MAC timer compatible with IEEE 802.15.4 , one general 16-digit timer and two 8-digit timers.

Technical Parameters

Output Power:	-28 dBm to 4 dBm
Receiver Sensitivity:	-97 dBm
Communication Range:	Up to 220 meters (line of sight)
Data Transmission Rate:	250 Kbps
Frequency:	2.405-2.480 GHz
Channel :	16
Working Voltage:	2.0 to 3.6 V DC
Consumption:	@receiving mode 28 mA @transmitting mode 34 mA @operating mode 110 uA @standby mode 0.8 uA
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	16mm × 22mm × 3.7mm

ZigBee Module

RF Module

Z100D



Z100D is a ZigBee Pro/IEEE 802.15.4 compliant surface-mounted RF module. The module is flashed with a standard ZigBee HA Dimmer Light firmware. It supports one PWM signal output for dimmable light and motor speed control. Product developer utilizes this module for cost effective IEEE 802.15.4 development and short time to market. This module helps developer minimize development effort and skips the complicated RF design stage. 2 module types are available: Z100DC chip-antenna and Z100DI I-PEX connector.

Product Version

Z100DC V1.1: with chip antenna
Z100DI V1.1: for I-PEX antenna

Main Features

- High performance and low power consumption 16-bit processor (XAP2b core)
- 2.4 GHz IEEE 802.15.4 standard transceiver
- Excellent receiver sensitivity
- Wide Power Voltage Range (2.0V - 3.6V DC)
- Digital RSSI / LQI support and Powerful DMA functionality
- One adjustable PWM signal output with a soft key
- Two 16-bit general-purpose timers and one 16-bit sleep timer

Technical Parameters

Output Power:	-32 dBm to 3 dBm
Receiver Sensitivity:	-101 dBm
Communication Range:	Up to 200 meters
Data Transmission Rate:	250 Kbps
Frequency:	2.405-2.480 GHz
Channel :	16
Working Voltage:	2.1 to 3.6 V DC
Consumption:	@receiving mode 36 mA @transmitting mode 36 mA @operating mode 8 mA @standby mode 1.0 ~1.5 uA
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Product Dimension:	16mm × 22mm × 3.7mm

RF Module with Power Amplifier

Z110P



Product Version

Z110PAC: Chip-antenna
Z110PAI: I-PEX connector

Z110P is a surface-mounted module, user can establish IEEE 802.15.4 system using this module for quick to market release, cost effective, and low development cost. This system will help user minimize development effort and skip the complicated RF design stage. Z110P has 18dBm output power to realize the communication up to 1000 meters outdoor. There are 2 types of module type available at the moment: Z110PAC chip-antenna and Z110PAI IPEX connector. The 2 types supports pre-program communication range through network protocol stack .

*Modules come unloaded or with firmware of ZigBee Coordinator or Router.

Main Features

- High performance and low power consumption 8051 MCU
- 2.4 GHz IEEE 802.15.4 standard transceiver
- Excellent receiver sensitivity
- Wide Power Voltage Range (2.0V - 3.6V DC)
- Digital RSSI / LQI support and Powerful DMA functionality
- Equipped with battery detection and temperature sensor
- Two programmable USARTs with support for several serial protocols
- One IEEE 802.15.4 MAC Timer, one general 16-bit timer and two 8-bit timers
- 18dBm Output Power
- -108dBm Receiver Sensitivity

Technical Parameters

Output Power:	18dBm (Max)
Receiver Sensitivity:	-108dBm
Communication Range:	Up to 1000 meters outdoor
Data Transmission Rate:	250 Kbps
Frequency:	2.4-2.4835 GHz
Channel:	16
Working Voltage:	2.0 to 3.6V DC
Consumption:	@receiving mode < 45mA @transmitting mode < 180mA @standby mode < 12mA
Operating Ambient:	Temperature -20~85°C, Humidity max. 95%RH
Product Dimension:	20.5mm × 26.6mm × 3.7mm

Cloud-Based Wireless Smart Home Controller

Z203



Netvox Z203 is a Cloud-Based Wireless Smart Home (CWSH) Controller. It is equipped with ZigBee and Wi-Fi technology. Z203 plays the main character of Netvox Smart Home Cloud Platform. It provides Cloud services, Wi-Fi connection, and ZigBee network communication. Via Wi-Fi connection, users are able to control the ZigBee network devices through mobile app. Furthermore, Netvox Smart Home Cloud service allows users to remotely manage the devices, like lighting, curtain, or IP Camera, anytime and anywhere.

Main Features

- Protocol based on ZigBee HA V1.1 or V1.2
- IEEE 802.11 b/g/n
- Up to 300Mbps Wi-Fi speed
- Manage your home
- Accessible from anywhere, anytime
- Easy installation and configuration

Technical Parameters

Power Supply:	DC 12V
ZigBee Standard:	IEEE 802.15.4
Wi-Fi Standard:	IEEE 802.11 b/g/n
Interface	10/100Mbps WAN x 1 10/100Mbps LAN x 1
Antenna:	2T2R
Communication Range:	Up to 140 meters (line of sight)
Operating Ambient :	Temperature -10~50℃ Humidity max. 95%RH
Product Dimension:	185 x 157 x 50mm

Cloud-Based Wireless Smart Home Controller

Z206



Netvox Z206 is a Cloud-Based Wireless Smart Home (CWSH) Controller. It is equipped with ZigBee, Wi-Fi, and Cloud technology. Z206 plays the main character of Netvox Smart Home Cloud Platform. It provides Cloud services, Wi-Fi connection, and ZigBee network communication. Via Wi-Fi connection, users are able to control the ZigBee network devices through mobile app. Furthermore, Netvox Smart Home Cloud service allows users to remotely manage the devices, like lighting, curtain, or IP Camera, anytime and anywhere.

Main Features

- Protocol based on ZigBee HA V1.1 or V1.2
- IEEE 802.11 b/g/n
- Up to 300Mbps Wi-Fi speed
- Manage your home
- Accessible from anywhere, anytime
- Easy installation and configuration

Technical Parameters

Power Supply:	DC 12V/1.5A
ZigBee Standard:	IEEE 802.15.4
Wi-Fi Standard:	IEEE 802.11 b/g/n
Interface	10/100Mbps WAN x 1 10/100Mbps LAN x 1
Antenna:	2T2R
Communication Range:	ZigBee: Up to 210 meters (line of sight) Wi-Fi: Up to 250 meters (line of sight)
Operating Ambient :	Humidity max. 95%RH Temperature -10~50°C
Product Dimension:	112 x 155 x 65mm

Cloud-Based Wireless Smart Home Controller

Z207/Z207A



Netvox Z207/Z207A are Cloud-Based Wireless Smart Home (CWSH) Controllers. They are equipped with ZigBee, and cloud technology. As the main character of Netvox Smart Home Cloud Platform, they provide cloud services and ZigBee network communication.

Users are able to control the ZigBee network devices through Z207/Z207A with mobile App. Netvox Smart Home Cloud service allows users to remotely control home devices anytime and anywhere to achieve low power consumption and environmental protection. Widely used for home and commercial purpose.

Model	Z207	Z207A
TX power	7 dBm	19 dBm
Connecting range	210 meters	800 meters
Rx sensitivity	-99dBm	-107dBm

Main Features

- Device type: Combined Interface
- Protocol based on IEEE 802.15.4 / ZigBee Pro™
- Support Netvox Cloud system
- Support up to 20 Zigbee devices
- Easy installation and configuration

Technical Parameter

Power Supply:	DC 5V
ZigBee Standard:	Protocol based on IEEE 802.15.4 / ZigBee Pro™
Frequency:	2.4GHz ISM band transceiver, total 16 channels
Interface	WAN port x 1 Micro USB port x 1 (for power supply)
Antenna:	PCB
Communication Range:	Z207: 210 meters Z207A: 800 meters
Operating Ambient :	Humidity max. 95%RH Temperature -10~50℃
Product Dimension:	76.5mm x 37mm x 22mm

Cloud-Based Wireless Smart Home Controller (Provide Wi-Fi connection)

Z207W



Netvox Z207W is a Cloud-Based Wireless Smart Home (CWSH) Controller. It is equipped with ZigBee ,Wi-Fi , and cloud technology. As the main character of Netvox Smart Home Cloud Platform, It provides Cloud services, Wi-Fi connection, and ZigBee network communication.

Netvox Smart Home Cloud service allows users to remotely control home devices anytime and anywhere to achieve low power consumption and environmental protection. Widely used for home and commercial purpose.

Main Features

- Protocol based on ZigBee HA V1.1 or V1.2
- IEEE 802.11 b/g/n
- Up to 150Mbps Wi-Fi speed
- Support Netvox Cloud system
- Support up to 20 Zigbee end points
- Easy installation and configuration

Technical Parameter

Power Supply:	DC 5V / 1A
ZigBee Standard:	Protocol based on IEEE 802.15.4 / ZigBee Pro™
Wi-Fi Standard:	IEEE 802.11 b/g/n
Interface	WAN port x 1 Micro USB port x 1 (for power supply)
Antenna:	1T1R
Communication Range:	ZigBee: Up to 210 meters (line of sight) Wi-Fi: Up to 250 meters (line of sight)
Operating Ambient :	Humidity max. 95%RH Temperature -10~50℃
Product Dimension:	76.5mm x 37mm x 22mm

Wireless USB Interfacing Module

Z103A



Z103A wireless USB module provides interface based on the IEEE 802.15.4 wireless standard and USB. The USB dongle can be easily connected to the host computer for protocol based on ZigBee. This USB device communicates with ZigBee Pro module through its analog port.

Main Features

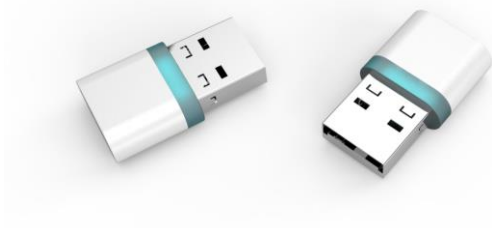
- Device type : Combined Interface
- USB powered/standard USB key chain size
- Serial port interface (virtual port under Windows)
- Chip-antenna
- Communication Range: Up to 340 meters (line-of-sight)

Technical Parameters

Frequency:	2.4-2.4835 GHz
Channels:	16
Receiver Sensitivity:	-97 dBm
Communication Range:	Up to 340 meters (line of sight)
Power Supply:	Standard USB 5V DC
Consumption:	@receiving mode <50mA @transmitting mode <50mA @standby mode <50mA
Operating Ambient:	Temperature -10~50°C, Humidity max. 95%RH
Product Dimension:	63.5mm x 27.5mm x 10.5mm

Wireless USB Dongle

Z108A



Z108A, a ZigBee USB Dongle, acts as a coordinator or a router in ZigBee network.

Z108A is charged via USB connector and allows PC or a gateway to communicate in ZigBee network.

Main Features

- Device type: Combined Interface
- Protocol based on IEEE 802.15.4 / ZigBee Pro™
- Standard USB connector
- Chip-antenna

Technical Parameter

Power Supply:	Standard USB 5V DC
Frequency:	2.4~2.4835 GHz
Channels:	16
Communication Range:	Up to 300 meters (line of sight)
Consumption:	@receiving mode 45mA @transmitting mode 60mA
Receiver Sensitivity:	-100 dBm
Operating Ambient:	Temperature -10~50°C Humidity up to 95%
Product Dimension:	27.8mm x 16mm x 7mm

Coordinator/Router

Z201



Z201

Z201C and Z201B are robust coordinator and are used in Home Automation. Coordinator is the core unit in ZigBee network which is in charge of generating Beacon, controlling topology formation, and coordinating the flow rate of every device in the network. In addition of being a coordinator, **Z201B** is equipped with security center (IAS CIE) to manage security devices. Z201B enrolls the security devices, monitors their working condition and listens to the security events. A security remote controller (IAS ACE device) can be used to arm/disarm or sent an emergency signal to Z201B.

In contrast to Z201C and Z201B coordinators, **Z201R** is a dedicated range extender router.

Product models

- Z201C:** Simple Coordinator
- Z201B:** Coordinator with IAS CIE
- Z201R:** Range Extender (a router device)

Main Features

- ZigBee type : IAS CIE
- Protocol based on ZigBee
- Support CSMA/CA hardware
- LED status indication
- Smart Home Automation: Every network has one coordinator. It' s the ZigBee network initiator and joins other devices.

Technical Parameters

Power Supply:	12V DC, 1A
Operating consumption	45mA
Frequency:	2.4-2.4835 GHz
Channel:	16
Communication Range:	Up 200 meters (line-of-sight)
Output Power Range:	-32dBm ~ +3dBm
Operating Ambient:	Temperature -10~50℃ Humidity -40~85%
Product Dimension:	85mm x 54.3mm x 24mm

TCP/IP Gateway

Z202E



Z202 is a TCP/IP Gateway based on ZigBee and equipped with standard Ethernet interface. With Z202 user is able to access ZigBee nodes remotely via PC or locally via Wi-Fi router, Ethernet router and PC.

Product models

Z202E1: a coordinator
Z202E2: a router device

Main Features

- Device type : Combined Interface
- Equipped with router device
- Protocol based on ZigBee
- Support CSMA/CA hardware
- Supports TCP/IP protocol
- LED status indication
- Support ARP, ICMP, BOOTP, DHCP, IPv4, IGMP, UDP

Technical Parameters

Power Supply:	5V DC
Communication Range:	Up to 200 meters outdoor
Frequency:	2.4-2.4835 GHz
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Output Power Range:	-32dBm ~ +3dBm
Product Dimension:	85mm × 54.3mm × 21mm

Infrared Adapter and Security Center

Z210



Z210 is an infrared adaptor and security center (IAS CIE).

The security center (IAS CIE) Z210 is to manage security devices. It enrolls the security devices, monitors their working condition and listens to the security events.

A security remote controller (IAS ACE device) can be used to arm/disarm Z210 the security center or sent an emergency signal.

Product models

Z210C: a coordinator with IAS CIE
Z210R: a router device with IAS CIE

Main Features

- Device type : IAS Control Indicating Equipment
- 38kHz Infrared frequency
- Protocol based on ZigBee
- 2.4GHz ISM band transceiver, total 16 channels
- 12V DC power supply
- SMA antenna
- Easy operation and setting

Technical Parameter

Power Supply:	12V DC
Frequency:	2.4-2.4835 GHz
Channel:	16
Output Power:	3dBm (Max.)
Communication Range:	Up to 200 meters indoor
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Infrared:	38kHz
Product Dimension:	83mm x 53mm x 24mm

Infrared Adapter Gateway

Z211



Z211 is an infrared gateway equipped with transmitter for infrared control, and it also acts as a router in the ZigBee network. Z211 infrared control system learns IR codes and transmits to control appliances such as DVD player. Z211 is shipped with an extension infrared receiver to be connected to the extension adaptor input of Z211 for extending user remote control.

Main Features

- Device type : IR Gateway
- 38kHz infrared frequency
- Protocol based on ZigBee HA V1.1 or V1.2
- 2.4GHz ISM band transceiver; total 16 channels
- 12V DC power supply
- Easy operation and setting

Technical Parameters

Power Supply:	12V DC
Frequency:	2.4 ~ 2.4835 GHz
Channel:	16
Output Power:	7dBm
Communication Range:	Up to 210 meters (line of sight)
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Consumption:	@operating mode: 50mA
Infrared:	38kHz
Product Dimension:	106mm x 106mm x 30.6mm

RS232 & Wireless Adaptor

ZL01A



Z-L01A is a industrial grade adaptor for transfer between ZigBee network and RS-232 interface. It provides 1 RS-232 and 1 Mini USB interface and acts as the gateway for communication between ZigBee network and RS-232. This adaptor is a low power consumption, compact, easy-to-use adaptor which provides reliable communication between devices.

Main Feature

- Device type : Combined Interface
- ISM frequency: 2.4Ghz
- 50 Ohm SMA antenna
- TX: 50mW (17dBm)
- RX: -96dBm
- DB9 port
- RS-232: 1200 ~ 115200bps
- Power supply via Mini USB port
- Reliable 802.15.4 wire adaptor
- Support star, tree and mesh network topology
- Communication range up to 1000 meters

Technical Parameters

Power Supply:	5V DC
Communication Range:	Up to 1000 meters outdoor
Frequency:	2.4-2.4835 GHz
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Port Type:	DB9 port
Baud Rate:	1200~115200bps (tell us on purchase order)
USB Port:	Mini USB port for power supply
Product Dimension:	104.2mm × 54.9mm × 21mm

RS485 & Wireless Adaptor

ZL01B



Z-L01B is an industrial grade adaptor for transfer between ZigBee network and RS-485 interface. It provides 1 RS-485 and 1 Mini USB interface and acts as the gateway for communication between ZigBee network and RS-485. This adaptor is a low power consumption, compact, easy-to-use adaptor which provides reliable communication between devices.

Main Features

- Device type : Combined Interface
- Equipped with router function
- ISM frequency: 2.4Ghz
- 50 Ohm SMA antenna
- TX: 50mW (17dBm)
- RX: -96dBm
- 10-pin port
- RS-485: 300 ~ 115200bps
- Reliable 802.15.4 wire adaptor
- Support star, tree and mesh network topology
- Communication range up to 1000 meters

Technical Parameters

Power Supply:	5V DC
Communication Range:	Up to 1000 meters outdoor
Frequency:	2.4-2.4835 GHz
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Port Type:	10-pin port
Baud Rate:	300~115200bps (tell us on purchase order)
USB Port:	Mini USB port for power supply
Product Dimension:	104.2mm × 54.9mm × 21mm

Ethernet & Wireless Adaptor

ZL01C



Z-L01C is an industrial grade smart adaptor for transfer between ZigBee network and Ethernet interface. It has a RJ45 Ethernet interface to do two-way communication. PC (or other Ethernet devices) can connect to a standard ZigBee network through RJ45 interface

Main Features

- Device type : Combined Interface
- TX: 50mW (17dBm)
- RX: -96dBm
- ISM frequency: 2.4Ghz
- 50 Ohm SMA antenna
- 10/100Mbit
- Communication Range up to 1000 meters

Technical Parameters

Power Supply:	5V DC
Communication Range:	Up to 1000 meters outdoor
Frequency:	2.4-2.4835 GHz
Operating Ambient:	Temperature -10~50℃ Humidity max. 95%RH
Port Type:	RJ45 port
Ethernet Transmission rate:	10/100Mbit
USB port:	Mini USB port for power supply
Product Dimension:	104.2mm × 54.9mm × 21mm

GPIO & Wireless Adaptor

ZL01D



Z-Lo1D is an industrial grade smart adaptor for transfer between ZigBee network and GPIO interface. It has one mini USB port, five programmable input port and five programmable output port for two-way communication. This adaptor is a low power consumption, compact, easy-to-use adaptor which provides reliable communication between devices.

Main Features

- Device type : Combined Interface
- ISM frequency: 2.4Ghz
- 50 Ohm SMA antenna
- TX: 50mW (17dBm)
- RX: -96dBm
- Reliable and suitable for industrial use
- 5 programmable input port and output port
- 3~24V input, 3~24V output

Technical Parameter	
Power Supply:	5V DC
Communication Range:	Up to 1000 meters outdoor
Frequency:	2.4-2.4835 GHz
Operating Ambient:	Temperature -10~50 °C
	Humidity max. 95%RH
Port Type:	GPIO port
Port Q' ty:	5-way input, 5-way output
USB port:	Mini USB port for power supply
Product Dimension:	104.2mm × 54.9mm × 21mm

Mini USB & Wireless Adaptor

ZL01E



Z-L01E is a smart adaptor for transfer between ZigBee network and Mini USB interface. It is either a ZigBee router or ZigBee coordinator device. It supports 2 communication modes: Data mode, allows the terminal machine connects to it to transmit data to the air. Command mode, allows PC to collect network information for ZigBee network supervision when connected with the PC.

Main Features

- Device type : Combined Interface
- Protocol based on ZigBee
- ISM frequency: 2.4Ghz, 16 channels
- Operable through 3rd party software
- RS-232: 1200 ~ 115200bps (115200bps baud @factory)

Technical Parameter	
Power Supply:	5V DC
Communication Range:	Up to 1000 meters outdoor
Frequency:	2.4-2.4835 GHz
Operating Ambient:	Temperature -10~50 °C Humidity max. 95%RH
Port Type:	Mini USB port
Product Dimension:	104.2mm × 54.9mm × 21mm

Straight Through RS232 to Wireless Adaptor

ZL01F

Z-L01F is an industrial grade adaptor for requesting data from a specific RS-232 terminal and transmit over a ZigBee network. Z-L01F converts RS-232 network to a wireless ZigBee network. It is suitable for wireless meter reading and data acquisition. Simple to use since it is a straight through device between the two interfaces.

This adaptor is a low power consumption, compact, easy-to-use adaptor which provides reliable communication between devices.



Main Feature

- Device type : Combined Interface
- ISM frequency: 2.4Ghz
- 50 Ohm SMA antenna
- TX: 50mW (17dBm)
- RX: -96dBm
- DB9 port
- RS-232: 1200 ~ 115200bps (9600bps baud @factory)
- Reliable 802.15.4 wire adaptor
- Support star, tree and mesh network topology
- Communication range up to 1000 meters

Technical Parameter

Power Supply:	5V DC
Communication Range:	Up to 1000 meters outdoor
Frequency:	2.4-2.4835 GHz
Operating Ambient:	Temperature -10~50°C Humidity max. 95%RH
Port Type:	DB9 port
Baud Rate:	1200~115200bps (tell us on purchase order)
USB Port:	Mini USB port for power supply
Product Dimension:	110mm × 55mm × 20mm

RGB LED Controller

ZL01G



ZL01G is a ZigBee dimmable / RGB control box, working with RGB lamps and lights strips. It can communicate with end devices through ZigBee network.

There are two power supplies, DC12V and 24V. ZL01G can control V+ input RGB panels / lamps, and control RGB colors and brightness.

Main Features

- Device type:Color Dimmable Light
- Protocol based on IEEE802.15.4 / Zigbee Pro™
- Control RGB colors and RGB brightness.
- Input power DC12V and 24V
- Support RGB LED Strip
- Antenna type : I-PEX

Technical Parameters

Power Supply:	+12VDC/ +24VDC
Communication Range:	Up to 300 m
Frequency:	2.4GHz ISM band transceiver; total 16 channels
Operating Ambient:	Temperature -10~50°C
	Humidity max. 95%RH
Max loading for each RGB:	10A
Output power:	7dBm/19dBm (Max.)
Antenna type:	I-PEX
Product Dimension:	110mm× 55mm× 20mm

IP Camera (Indoor)

WFC1



Netvox WFC1 is a P2P pan-tilt camera with high definition color CMOS sensor and 11-pc IR LEDs. It supports 1280*720 display resolution, H.264 image compression, horizontal 300° /vertical 120° PT angles, Ethernet connection, and WPS one button push wireless connection. While working with Netvox Cloud-based Smart Home system and Netvox app, users are able to easily supervise your house from anywhere at anytime. Should there's an alarm event, WFC1 will be triggered to start video recording, and immediate video image will be pop-out to alert the users. It helps take care of the safety for your home all the way.

Technical Parameter

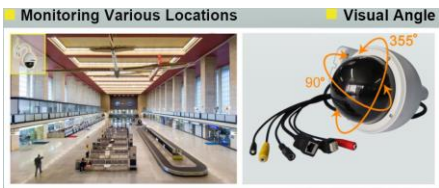
Power Supply:	DC 5V/ 2A
Sensor:	High definition color CMOS sensor
Display Resolution:	1280 x 720 (1 Megapixel)
Focal Length:	f:2.8mm
Image Compression:	H.264
Video Resolution:	720P HD/ VGA/ QVGA/
Image Frame Rate:	Max. 30fps, downward adjustable
Night Visibility:	11 pcs IR LEDs; range up to 8 meters
Pan/Tilt (PT) Angle:	Horizontal 300°, Vertical 120°
Ethernet:	10/100 Mbps RJ45 port x 1
Wireless Standard:	IEEE 802.11 b/g/n
Wi-Fi Security:	WEP/ WPA/ WPA2
WPS:	WPS one button wireless connection
Remote Access:	P2P/ DDNS
Operating Ambient:	-20°C ~ 55°C/ -4°F ~ 131°F
Product Dimension:	110mm(L) x 123mm(W) x 107mm(H)

Wireless Dome IP Camera (Outdoor)

WFC2



- 1.3 Megapixel HD Pan/Tilt/Zoom Dome IP Camera
- 3x zoom lens provide detailed view
- H.264 video Compression
- Day/Night Surveillance, IR LEDs On/Off Auto Switch
- Motion Detection alarm via E-Mail and FTP
- Compatible with Netvox Central Management Software
- Compatible with Netvox iOS and Android APP
- Free Netvox DDNS Service Embedded
- Supports PnP connection
- Supports IEEE 802.11n Wireless Connection
- Supports WEP, WPA and WPA2 Encryption
- Supports two-way Audio



Technical Parameter	
Power Supply:	DC 12V/2.0A
Sensor:	High Definition Color CMOS Sensor
Display Resolution:	1280 x 960 (1.3 Megapixel)
Focal Length:	f:2.8~12mm
Image Compression:	H.264
Video Resolution:	(1.3Megapixel)1280 x 960,720P HD/ VGA/ QVGA/
Image Frame Rate:	30fps maxmium, downward adjustable
Night Visibility:	21pcs IR-LEDs, night vision range up to 20 metres
Pan/Tilt (PT) Angle:	Horizontal:355° & Vertical: 78°
Ethernet:	One 10/100Mbps RJ45 port
Wireless Standard:	IEEE802.11b/g/n
Wireless Security:	WEP/ WPA/ WPA2
Network Protocol:	IP、TCP、UDP、HTTP、HTTPS、SMTP、FTP、DHCP、DDNS、UPnP、RTSP
Remote Access:	P2P/ DDNS
Operating Ambient:	-20℃ ~ 60° (-4°F ~ 140°F)
Product Dimension:	240(L)*140(W)*160(H) mm

Network and Adapter

Indoor Wireless IP Camera WFC3



- 720P HD Pan/Tilt Wired/Wireless IP Camera
- P2P Feature for Easy Remote Access
- Free DDNS Service Embedded
- H.264 video Compression
- Day/Night Surveillance, IR LEDs On/Off Auto Switch
- Motion Detection alarm via E-Mail and FTP
- Supports Micro SD Card storage
- Work with Netvox Central Management Software
- Work with Netvox iOS and Android APP
- Supports IEEE 802.11n Wireless Connection
- Supports WEP, WPA and WPA2 Encryption
- Built-in Mic & Speaker, Audio Jack for External Mic & Speaker
- Supports two-way Audio



Technical Parameter	
Power Supply:	DC 5V/ 2A
Sensor:	High definition color CMOS sensor
Display Resolution:	1280 x 720 (1 Megapixel)
Focal Length:	f:2.8mm
Image Compression:	H.264
Video Resolution:	720P HD/ VGA/ QVGA/
Image Frame Rate:	Max. 30fps, downward adjustable
Night Visibility:	11 pcs IR LEDs; range up to 8 meters
Pan/Tilt (PT) Angle:	Horizontal:300° & Vertical: 90°
Ethernet:	10/100 Mbps RJ45 port x 1
Wireless Standard:	IEEE 802.11 b/g/n
Wireless Security:	WEP/ WPA/ WPA2
Network protocol:	IP、TCP、UDP、HTTP、HTTPS、SMTP、FTP、DHCP、DDNS、UPnP、RTSP、WPS
WPS:	WPS one button wireless connection
Remote Access:	P2P/ DDNS
Operating Ambient:	0° ~ 40°C (32°F ~ 104°F)
Product Dimension:	110(L)*110(W)*135(H) mm

Network and Adapter

Wireless Dome IP Camera (Outdoor)

WFC4



Monitoring Various Locations



- 1.0 Megapixel HD Waterproof IP Camera
- H.264 video Compression
- P2P Feature for Easy Remote Access
- Motion Detection alarm via E-Mail and FTP
- Compatible with Netvox Central Management Software
- Compatible with free Foscam iOS and Android APP
- Supports IEEE 802.11n Wireless Connection
- Supports WEP, WPA and WPA2 Encryption
- With 1 Infrared Lamp Array,
- Night Vision Range up to 20m

Technical Parameter	
Power Supply:	DC 12V/1.0A
Sensor:	High Definition Color CMOS Sensor
Display Resolution:	1280 x 720 (1.0M Pixels)
Focal Length:	f:4mm · 2.8mm/6mm/8mm Opention
Image Compression:	H.264
Video Resolution:	720P(1280 x 720), VGA(640 x 480), QVGA(320 x 240)
Image Frame Rate:	30fps(60Hz), 25fps(50Hz), downward adjustable
Night Visibility:	With 1 Infrared Lamp Array, Night Vision Range up to 20m
Angle of View:	Horizontal:70° Diagonal :75°
Ethernet:	One 10/100Mbps RJ45 port
Wireless Standard:	IEEE802.11b/g/n
Wireless Security:	WEP/ WPA/ WPA2
Network Protocol:	IP、TCP、UDP、HTTP、HTTPS、SMTP、FTP、DHCP、DDNS、UPnP、RTSP、ONVIF
Remote Access:	P2P/ DDNS
Operating Ambient:	-20℃ ~ 60° (-4°F ~ 140°F)
Product Dimension:	153(L)x 92(W)x 86(H) mm

Outdoor PoE Dome IP Camera

WFC5



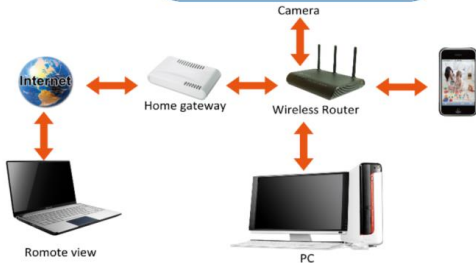
- 1.0 Megapixel HD Waterproof IP Camera
- H.264 video Compression
- PoE RJ45 port, transfers data and power on one single cable
- P2P Feature for Easy Remote Access
- Free Netvox DDNS Service Embedded
- Motion Detection alarm via E-Mail and FTP
- Compatible with Netvox Central Management Software
- Compatible with Netvox iOS and Android APP
- With 1 Infrared Lamp Array
- Night Vision Range up to 20m

Technical Parameter	
Power Supply:	DC 12V/1.0A;PoE (802.3af)
Sensor:	High Definition Color CMOS Sensor
Display Resolution:	1280 x 720 (1.0M Pixels)
Focal Length:	f:2.8
Image Compression:	H.264
Video Resolution:	720P(1280 x 720), VGA(640 x 480), QVGA(320 x 240)
Image Frame Rate:	30fps(60Hz), 25fps(50Hz), downward adjustable
Night Visibility:	With 1 Infrared Lamp Array, Night Vision Range up to 20m
Pan/Tilt (PT) Angle:	Horizontal:70° Diagonal :75
Ethernet:	One 10/100Mbps RJ45 port
Motion Detection:	Alarm via E-Mail, upload alarm snapshot to FTP
Built-in Card Slot:	Micro-SD 32G(Max)
Network Protocol:	IP、TCP、UDP、HTTP、HTTPS、SMTP、FTP、DHCP、DDNS、UPnP、RTSP、ONVIF
Remote Access:	P2P/ DDNS
Operating Ambient:	-20°C ~ 60° (-4°F ~ 140°F)
Product Dimension:	135(L)x135(W)x98(H) mm

Network and Adapter

Indoor Wireless IP Camera

WFC6



- 1.0 megapixel HD wireless IP Camera
- New private mould
- H.264 video compression
- Support two-way audio
- Support night vision
- Motion & sound detection alert via FTP and email
- Support EZlink, link to WiFi easily
- Support PnP, easy access by QR code
- Compatible with Netvox iOS and Android APP
- Support SD card storage
- Support various installation

Technical Parameter	
Power Supply:	USB 5V/1A
Sensor:	High definition color CMOS sensor
Display Resolution:	1.0M Pixels(1280*720)
Focal Length:	f:2.8mm
Image Compression:	H.264
Video Resolution:	720P(1280 x 720), VGA(640 x 480) & (640 x 360), QVGA(320 x 240) & (320 x 180)
Image Frame Rate:	30fps maxmium, downward adjustable
Night Visibility:	Night Vision Range up to 5m
Angle of View:	115°
Ethernet:	Yes
Wireless Standard:	IEEE 802.11 b/g/n
EZlink:	Link to WiFi network easily
Network protocol:	IP、TCP、UDP、HTTP、HTTPS、SMTP、FTP、DHCP、DDNS、UPnP、RTSP、WPS
WPS:	WPS one button wireless connection
External Card Slot:	Micro-SD up to 32G
Operating Ambient:	-10℃ ~ 55℃ (14°F ~ 131°F)
Product Dimension:	76mm*76mm*121mm

WiFi Door Sensor



Length: 98mm
Width: 24mm (Body) 9mm (Magnet)
Thickness: 14mm (Body) 11mm (Magnet)
Material: PC510
Weight: 16g (Body, battery not included)
14g (Magnet)

W313

- Black version
- White version

W313 is a high-reliability intelligent door sensor. W313 realizes the cloud connection through WiFi, it can be used with mobile APP to achieve a variety of features and functionalities.

Application Field

For home, office use, etc. To detect the opening and closing occasions, such as doors, windows, drawers, etc.

Main Feature

- Support Netvox Cloud
- Support IEEE 802.11b/g/n
- To get status notification through mobile APP

Technical Parameter

Power Supply:	2*1.5V AAA Alkaline battery
Communication Range:	Up to 200 meters outdoor
Frequency:	2.4-2.4835 GHz
Communication Protocol:	802.11b/g/n
TX power:	19dBm (802.11b)
Rx sensitivity:	-80dBm (802.11b)
Antenna type:	Build-in antenna
Working Temp.:	0°C~40°C
Storage Temp.:	-20°C~60°C

Wireless Network Control

Android app



**Wireless Controller
- Android app**

Netvox Android app is a many-to-one multi-control device on the palm of your hand. It gives the Android phone user a slick control experience and proof all-in-one concept. Change control interface anyway you wanted and control ZigBee device at anywhere you like. It comes with single and many devices control or scene control.

*To use Android app, Z203 Cloud-Based Wireless Smart Home Controller (CWSH) is required.



Main Features

- Innovative Smart Home remote for configuring and controlling local smart home appliances
- User friendly icons and interfaces
- Accessible from anywhere, anytime
- Scene control and scene schedule activation
- Control all you can see
- Protocol based on ZigBee HA V1.1 or V1.2
- For ZigBee Home Automation network

Wireless Network Control

iPhone app



Netvox iPhone APP – is a many-to-one multi-control device on the palm of your hand.

It gives the iPhone user a slick control experience and proof all-in-one concept. Change control interface anyway you want and control ZigBee device at anywhere you like. It comes with single device control and many devices or scene control. It allows you flexibly customize your feature and user interface.

*To use iPhone app, Z203/Z206 gateway is required.

Wireless controller

-An iPhone app



Requirements:

Compatible with

-iPhone,

-iPod Touch

Requires iOS 3.2 or later.

Main Features

- Innovative Smart Home remote for configuring and controlling local smart home appliances.
- User friendly icons and interfaces
- Scene control and scene schedule activation
- Control all you can see
- Customable user interface and control
- Protocol based on ZigBee HA
- For ZigBee Home Automation network

Netvox CWSH REST API



Netvox CWSH (Cloud-Based Wireless Smart Home) REST API is designed specifically for application integrators who wish to develop their own Smart Home system and mobile app. Netvox REST API helps integrator engineers greatly reduce development time. Without having to master the required knowledge of ZigBee and Home Automation, developers are able to build up ZigBee applications based on ZigBee standard.

With CWSH REST API, developers can easily develop app for various functions such as forwards management & control commands which derived from corresponding device or search for ZigBee devices within the ZigBee network. It is completely self-developed from ground up and does not rely on any 3rd party environment or document.

Use Netvox REST API in combination with ZigBee Cloud-based Smart Home controller, you can easily talk to the ZigBee device; for instance, you can just turn on a light with the following command:

(Con' t) Netvox CWSH REST API

Request URL :

<http://192.168.1.184/cgi-bin/rest/network/onOffLightSwitchOperation.cgi?ieee=00137A000000311B&ep=01&operator=0¶m1=1¶m2=2¶m3=3&callback=1234&encodemethod=NONE&sign=AAA>

Description: On off light switch operation

Parameter:

Ieee : corresponding device IEEE address

Ep: corresponding device IEEE ep

Operatortype: operation type (the detail information please read the form follows in the passage)

Example:

```
{
  "request_id":1234,
  "response_params":
  {
    "ieee": "1234",
    "ep": "12",
    "operatortype":1,
    "param1":1,
    "param2":2,
    "param3":3
  }
}
```

(Con' t) Netvox CWSH REST API

- 1. Export Function
 - 1.1 Get ZBNode
 - 1.2 GetEndPoint
 - 1.3 getIeeeEndPoint
 - 1.4 BindDevice
 - 1.5 UnBind Device
 - 1.6 ClearNode
 - 1.7 DeleteNode
 - 1.8 ManageLeaveNode
 - 1.9 CheckDeviceBind
 - 1.10 AddDeviceByIEEE
 - 1.11 RebuildNetworkByParam
 - 1.12 CheckDeviceAlive
 - 1.13 GetSDKVersion
 - 1.14 SaveNetwork
 - 1.15 GetLocalCIEHandle
 - 1.16 ZBGetZBNodeCount
 - 1.17 ZBGetZBNodeByIEEE
 - 1.18 ZBGetZBNodeByNwk_addr
 - 1.19 ZBGetZBNodeByIndex
 - 1.20 ZBGetEndPointCount
 - 1.21 ZBPutLocation
 - 1.22 ZBGetEndPointByIndex
 - 1.23 ZBIRLearn
 - 1.24 ZBIRApply
 - 1.25 ZBImportIRLib
 - 1.26 ZBGetIRData
 - 1.27 ZBDirectWriteIRData
 - 1.28 ZBEraseSingleIRData
 - 1.29 ZBIRtoZigBeeLearn
 - 1.30 ZBIRtoZigBeeGetIRData
 - 1.31 ZBIRtoZigBeeEraseSingleIRData
 - 1.32 ZBSyncMacroIRData
 - 1.33 ZBGetMacroListData
 - 1.34 ZBDeleteMacroIRListData
 - 1.35 ZBSendRawMessageToComPort
 - 1.36 ZBSetReportTime
 - 1.37 ZBGetStyleList
 - 1.38 ZBGetIRLibData
 - 1.39 ZBDeleteIRLibData
 - 1.40 ZBGetIRLocalData
 - 1.41 ZBAddIRData
 - 1.42 ZBDelIRData
 - 1.43 ZBStopSynIRData
 - 1.44 ZBSyncIRData
 - 1.45 ZBIrRemoteTV
 - 1.46 ZBIrRemoteSTB
 - 1.47 ZBIrRemoteDVD
 - 1.48 ZBIrRemoteprojector
 - 1.49 ZBIrRemoteAC
 - 1.50 ZBIrRemoteControl

REST API Feature

- Add device by IEEE
- Get ZigBee node by IEEE
- Device search
- Device management
- Device control
- Device binding
- Configuration & control
- ZigBee-to-Infrared:

It is used for ZigBee-IR Bridge to learn the IR codes, transmit IR signal, read, write and clear IR code table.

- IR-to-ZigBee:

It is used for ZigBee-IR Bridge to learn the IR codes, set ZigBee macros and the respective IR codes.

- Record and manage ZigBee control macros

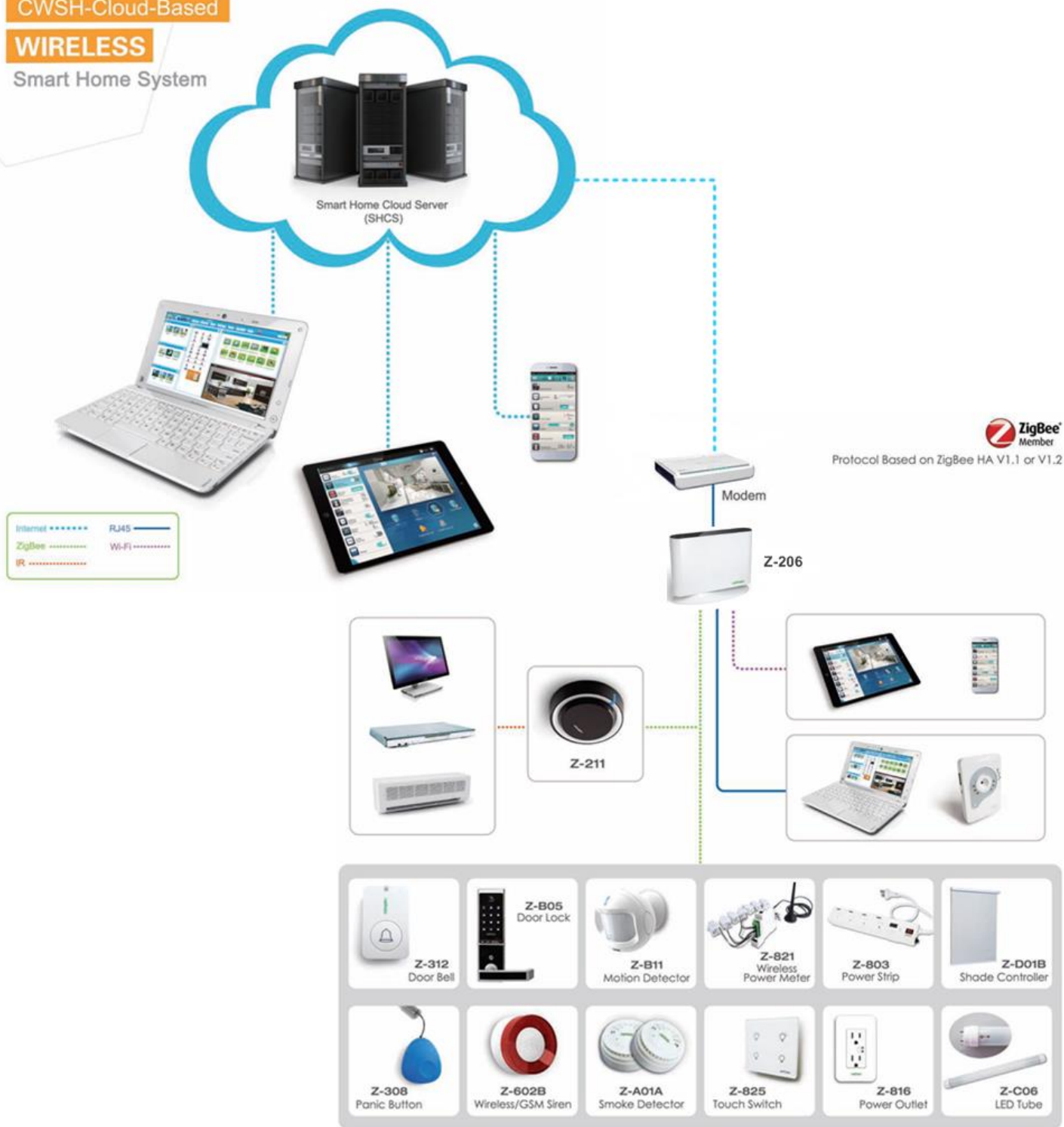
(Con' t) Netvox CWSH REST API

netvox®

CWSH-Cloud-Based

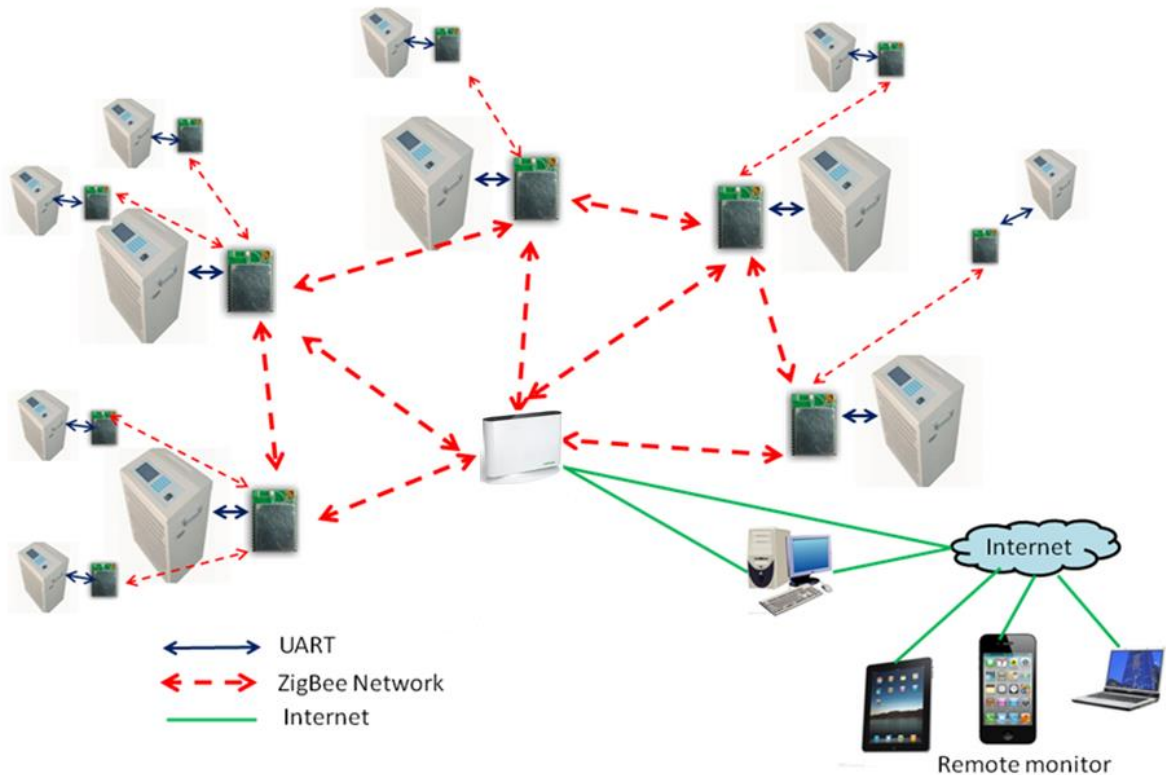
WIRELESS

Smart Home System

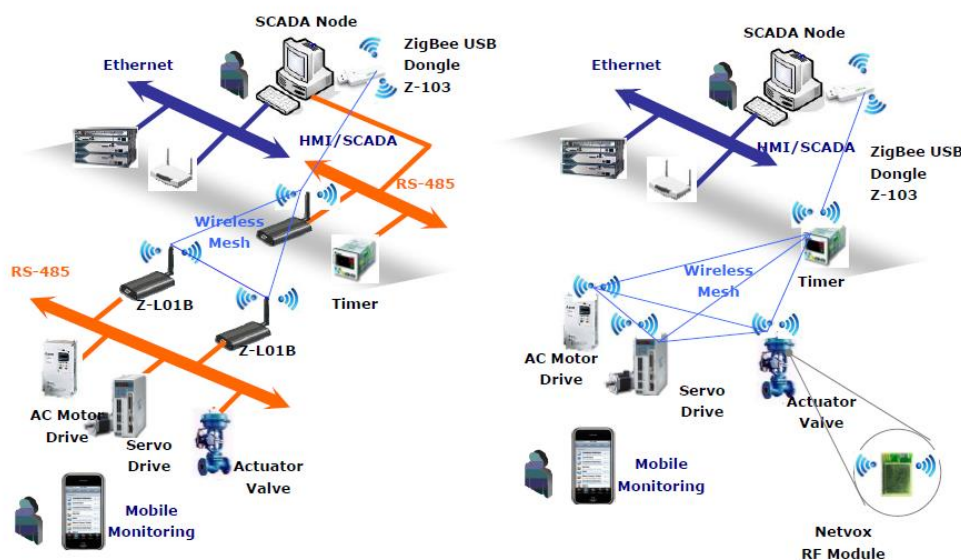


Netvox Wireless Solution for Industrial

Your network may look something like the figure bellow. The example shows a wireless battery monitor system with Netvox ZigBee RF module, Z-103 USB dongle and Z-206 TCP/IP gateway to monitor change of voltage and current of several batteries.



Netvox also provides an external adaptor solution for industrial control where external connection is required. SCADA application software is developed using the Netvox Wireless Industrial Automation SDK to communicate with industrial machines through the external adaptor Z-Lo1 for RS232 or RS485 as illustrated on the left figure bellow.

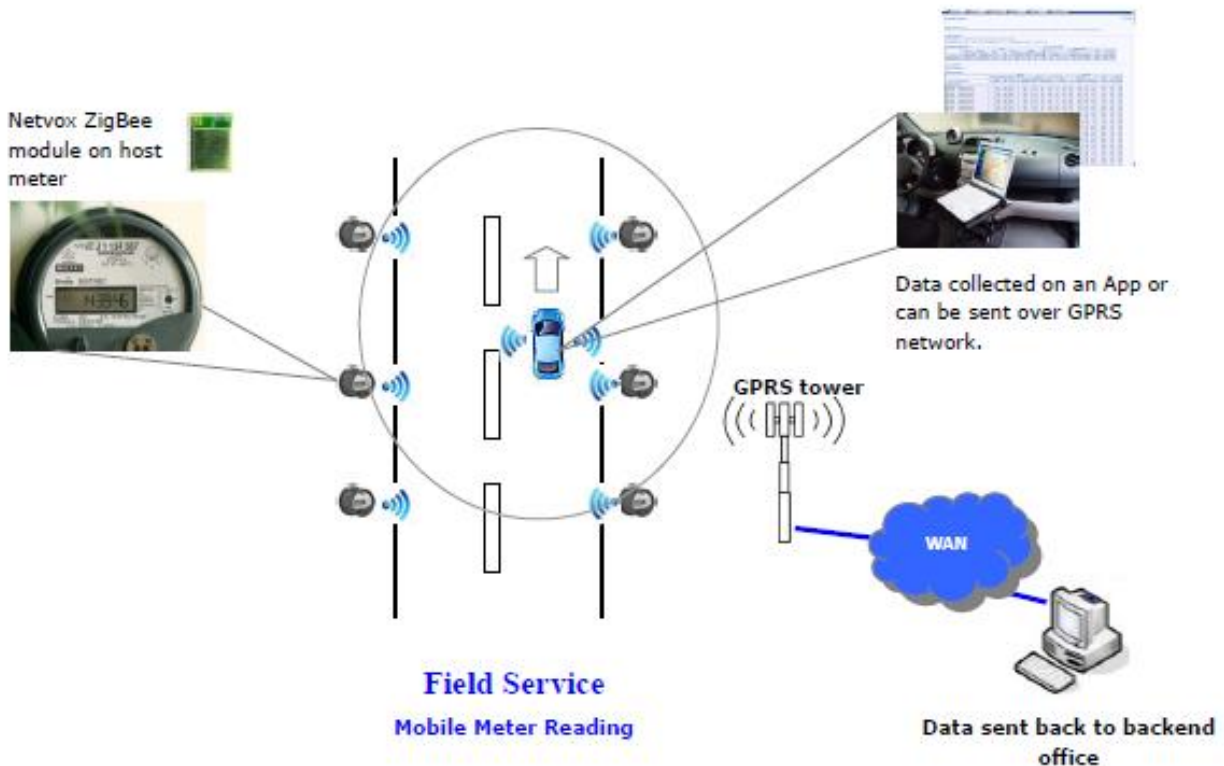


Industrial Automation Application

Processing Room/Motor Control

(Con' t) Netvox Wireless Solution for Industrial

Here is an another sample using our solution to construct a **mobile meter reading** network.



As shown above, each meter embedded with Z-100B RF module to send data to a mobile laptop, smart phone or tablet PC with an APP on it. The idea of this mobile meter reading is to simplify traditional way of meter reading. In this sample, users can easily take a laptop or smart phone and just drive through these meter devices. Then data will be automatically sent to the service PC. For further application, users can even send data automatically back to the office via GPRS network.

This sample can be applied to any kind of meter reading such as electric meter, gas meter, water meter, etc. This will greatly reduce difficulty to get data from every device by people. Or it can even be designed to send data directly to a data collect center.

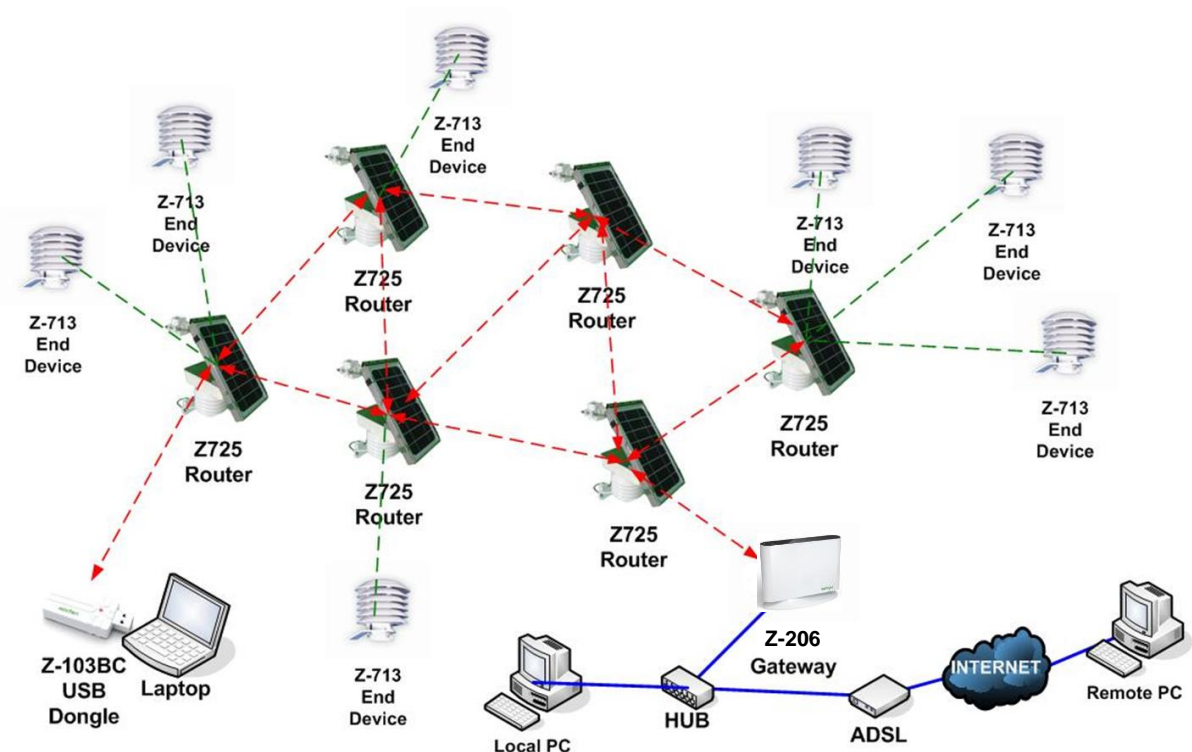
Please contact us for more possible application using Netvox Wireless Industrial Automation Network Solution.

Netvox Environmental Monitoring System

Netvox Environmental Monitoring System

Netvox wireless environmental monitoring system is a set of temperature and humidity, UV intensity signal acquisition and features like wireless transmission, real-time dynamic display, control and communications functions aggregate into one monitoring system. A system with high integration, high reliability and low power consumption, low cost, small size and other characteristics, easily maintain. Only the corresponding node needed to be replaced avoiding traditional control circuit trouble, thus significantly reducing the equipment acquisition costs, installation costs and system maintenance costs. Using the emerging wireless networking technology based on ZigBee, environmental monitoring systems for indoor and outdoor near real-time data logging. From the control room you can remotely monitor operational status and receive notification generated by a configured threshold.

Sensor Mesh Network



The sensor network depicts in the figure above can be deployed for a wide spread environment monitoring which sends data collected back to its back-end server remotely through a gateway Z206. The network uses Z725 as range extender router to relay data across the network. Z725 is also a sensor itself equipped with a solar charging system to ensure full-time power supply. The network employs mesh network to respond to path failure supported by neighboring Z725 routers. Mobile laptop can be interfaced with Z103 USB dongle to work in the field.

Netvox Environmental Monitoring System

(con't) Netvox Environmental Monitoring System

There are other features other than temperature and humidity signal acquisition, the system can also coupled with various detectors such as illumination, UV intensity, and the indoor CO, liquefied petroleum gas concentrations, smoke levels and other parameters. For example, install the monitoring detectors in selected areas via ZigBee routing connection to the central control room you can monitor the area condition. When the measured point of the measurement data exceeds a pre-set threshold, the alarm signal notifies the control room security officer who will then take appropriate action.



Netvox Monitoring System Feature

- **Data acquisition :** The system respond to real-time data collected from wide-spread area and control the temperature and humidity. If out of threshold is detected the system issues alarm accordingly.
- **Chart:** Graphical displays history of the temperature and humidity curves.
- **Alarm:** each alarm notification is configured for specific alarm type to notify the administrator.
- **Network:** User may remotely monitor the network condition in near real-time.
- **Automatic control:** You can control the temperature regulator system through the application software. i.e. the system turns on or off the air conditioning when the humidity is above or bellow the pre-configured setting.

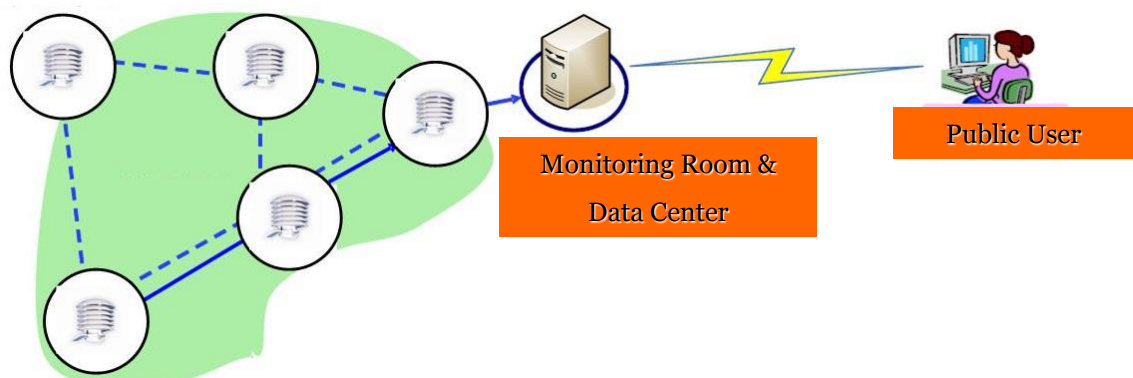
Netvox Environmental Monitoring System

Urban micro-climate detection System

In recent decades, due to the rapid development of urbanization, changes in the structure of underlying surface, transportation emitting heat, building heat and other factors. The urban heat environment progressively worsened, the "heat island phenomenon" and its negative influence is increasingly prominent. At present, the outdoor thermal environment has been the growing attention to the public. Urban micro-climate detection system could benefit from ZigBee wireless transmission technology, combined with temperature and humidity sensors.



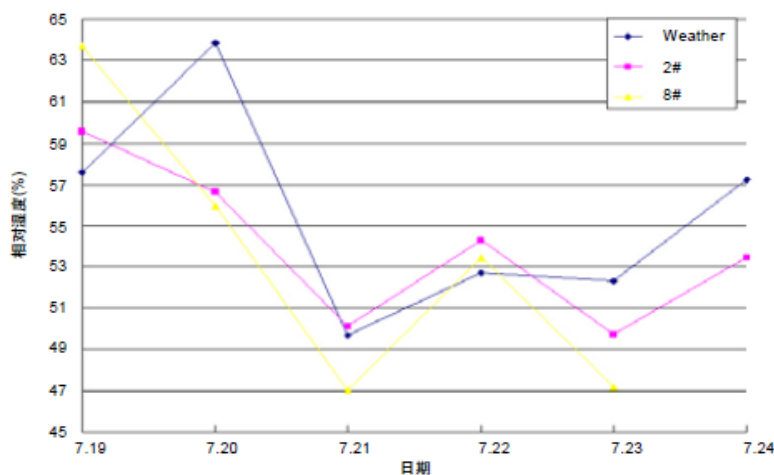
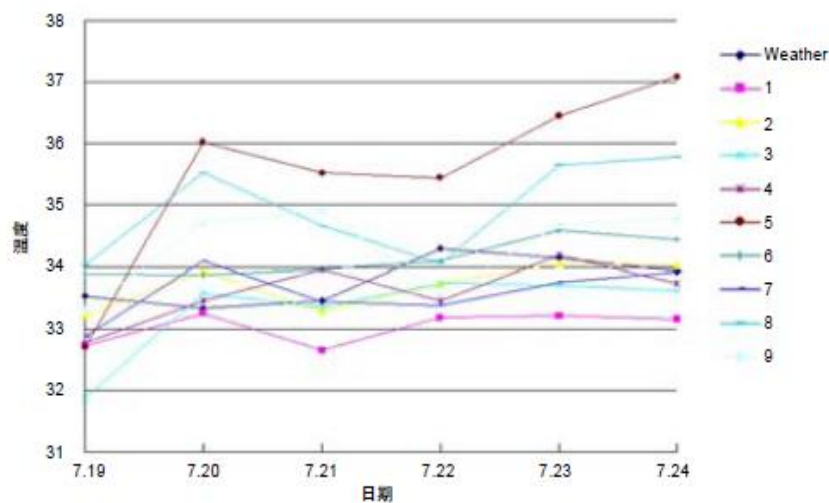
Through the connection between ZigBee network and data center –temperature/humidity acquisition, urban micro-climate monitoring system is able to disseminated to the public through web server. Web member may browse to view regional air temperature and humidity report. The data center may monitor the system to ensure normal operation. The alarm signals the administrator to take measure for any point of failure detected or temperature and humidity exceeds a pre-set threshold.



Netvox Environmental Monitoring System

Urban micro-climate Detection System Feature

- **Energy-saving/ Environmental protection:** Temperature and humidity probe are solar-powered, no additional power supply and schedule battery replacement;
- **Easy to Install:** ZigBee wireless technology adoption, detection system and data exchanges are all wireless and easy to install.
- **Data acquisition:** data acquisition of all the detection nodes for temperature/humidity monitoring and control in real-time.
- **Chart:** Graphical displays history of the temperature and humidity curves.
- **Alarm:** each alarm notification is configured for specific alarm type to notify the administrator.
- **Web reporting:** Data can be browsed via web browser citizens can easily access to current temperature and humidity report.

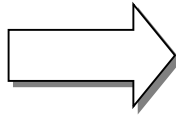


More on application

Outdoor

Energy saving and effective street management

- Level control based on sky light intensity
- Level control based on body movement
- Provides the pedestrian current location



- Energy conservation
- Extend light bulb life
- Easy to manage
- Handy

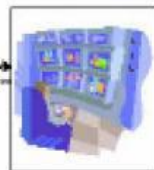


Indoor

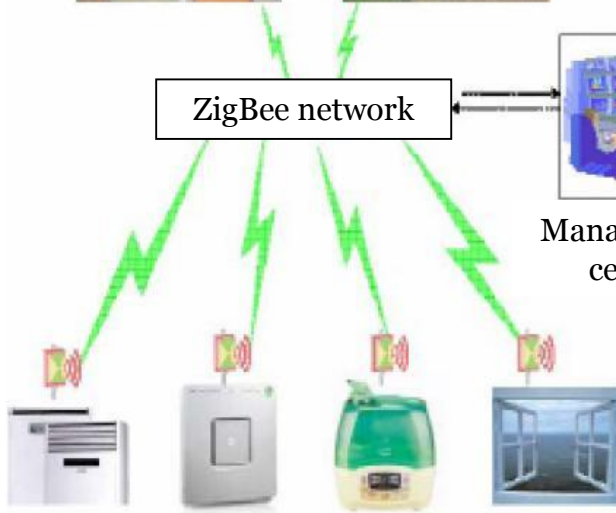
The public places of the indoor environment is particularly important for the elderly, children who are vulnerable to environmental impacts



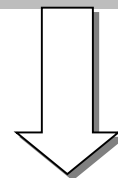
ZigBee network



Management center



- Indoor or outdoor humidity and temperature sense
- Near real-time notification to the control center



- Response to real-time indoor detection and automatic air quality improvement and window or door open necessity
- Response to real-time outdoor environment

More on application

Emergency Alarm

Emergency alarm system provides first aid alarm notifying the on time staffs for elderly monitoring

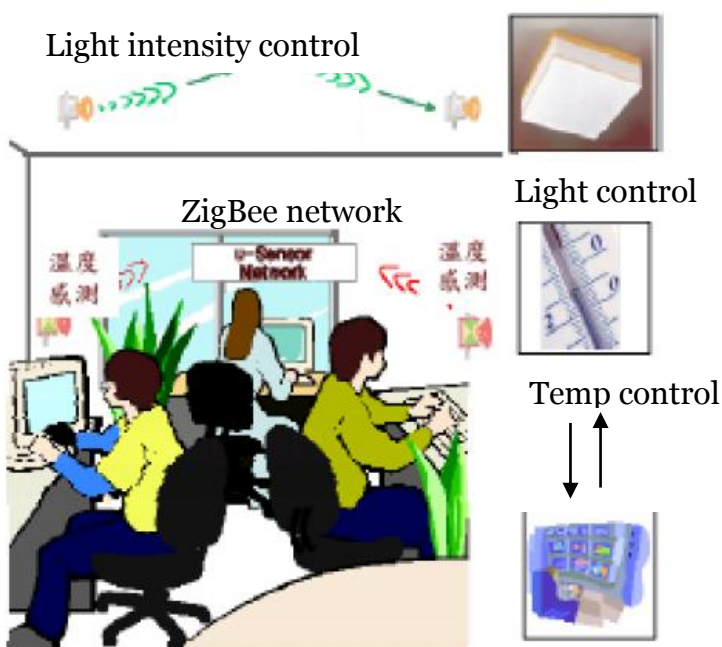


- Utilizes wrist wear emergency button for fall detection
- Utilizes ZigBee network signal transmission
- Emergency alarm notification

- Response to instant events for no delaying treatment
- Response to special care patients in the routine care schedule

Environment and energy save

Environmental control by wireless devices based on the aggregated information from the temperature, humidity & light sensor



- Utilizes sensors collects temperature, humidity and light info
- Utilizes wireless equipped devices, the ZigBee mesh network relay the signal to the central control system

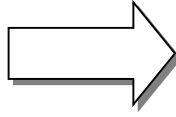
- Sensors can be easily installed and provides multiple sensor information for in-building condition reporting
- Adding new or relocate ZigBee sensors helps to overcome wiring problem
- The energy saving Technical is achievable by the use of data return from the sensor

More on application

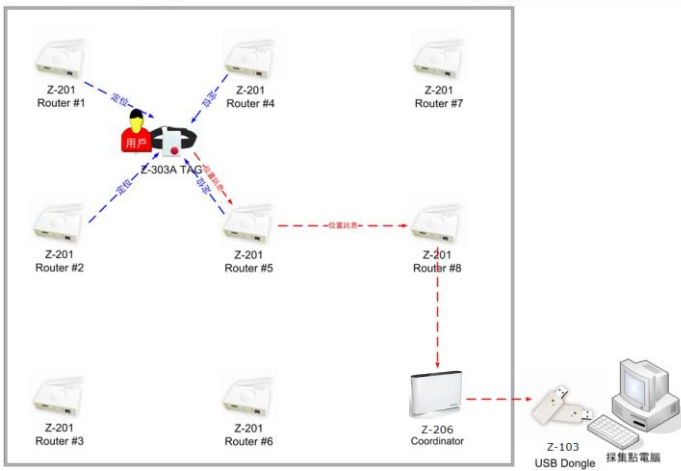
Playground Management

Tagging and positioning system provides risk pretension tactic and prevent being monitored

- Utilizes positioning system to for location identification
- Utilizes the Infrared sensor detecting nearby and accessing violation
- Positioning System can also be used to find family members

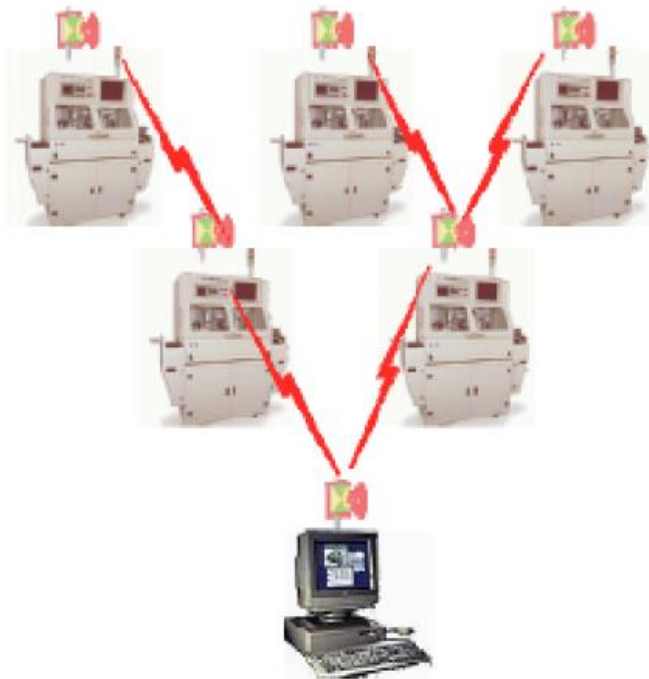


- Reduces admission delays
- Prevent children from getting lost
- Better company image

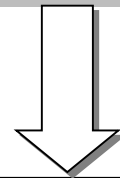


Industrial Application

Factory data line go wireless improves operating environment and management efficiency



- Cabling replaced by wireless communication



- Increase productivity, reduce remodeling time
- Saving on equipment maintenance cost
- Improve environment for working staff

How to build a complete ZigBee Network?

room control - home automation - smart energy

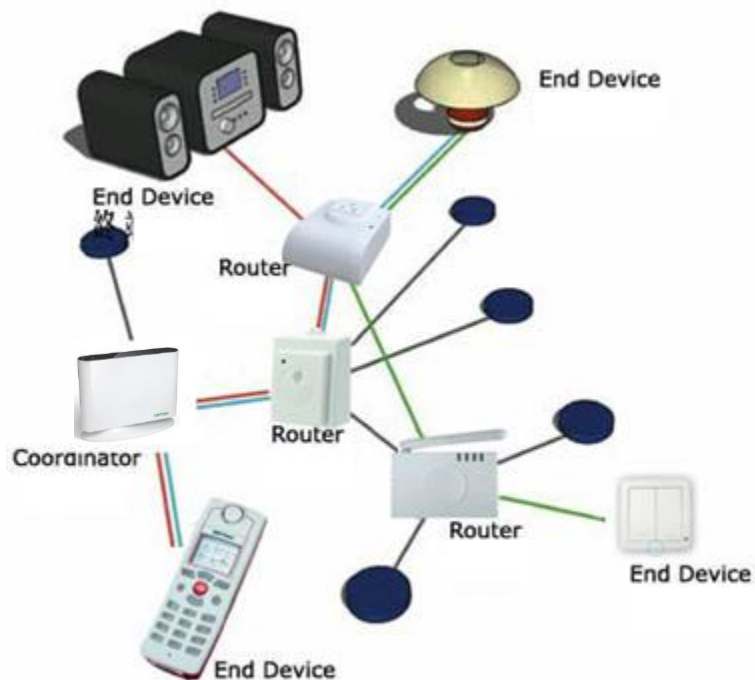
Generally, a complete ZigBee network contains 3 factors: ZigBee Coordinator, ZigBee Router and End Device.

1. **ZigBee Coordinator:** In charge of generating network beacon, controlling the formation of network topology and coordinating the communication and flow rate of every device in the network. Coordinator is the central unit of a ZigBee network.

2. **ZigBee Router:** In charge of transmitting data, coordinating flow rate of some devices in the network, sending and receiving commands and data, and permitting other devices as its subsidiary device. It also acts as repeater to extend the coverage of ZigBee network. For cost-efficient purpose, we do not make individual router but enable some of the ZigBee devices to have router function. Router mode device will not only satisfy client's need but also reduce the cost of building up network system.

3. **End Device:** Acts as the bottom of network topology, in charge of sending and receiving data and execute commands. However, end device does not hand over data to other devices.

Coordinator is indispensable in a ZigBee network, one network needs to have one coordinator. For quantity of routers and end devices, it depends on user's actual needs. Below is a typical ZigBee network figure.



Wireless Smart Home System



LoRa

zigbee alliance member

Netvox ZigBee Device Type & Model Number

Coordinator	Router	End Device
Z206 Coordinator	ZA01A Wireless Smoke Detector with Heat Sensor	Z311A/B/C Door/Light/Window Sensor
Z103AC Coordinator	Z801Rx Relay Board	ZB11 Motion Sensor
	ZC06 Dimmable LED Light	ZB02A/B/C Wall Switch
	Z800 Power Outlet	Z501 Simple Remote
	Z602A/B Siren	Z503 Multi-function Remote
	ZA01B/C/D Gas Sensor	Z801Tx Switcher Board
	ZA10 Gas Keeper	Z302D Panic Button
	ZD01B Curtain Controller	Z311E Asset Tag
	Z806 Output Unit	Z711/712/713 H/T Sensor

Wireless Smart Home System

There are a few subsidiary systems in ZigBee Smart Home System: Lighting, HVAC, Home Care, and Security...etc. Security is the most special application. Generally, below type of devices should be included: IAS Control and Indicating Equipment, IAS Ancillary Control Equipment, IAS Zone, and IAS Warning Device.

1. IAS Control and Indicating Equipment, abbreviated as: IAS CIE

IAS CIE is the central control and indication device in security system. It is in charge of receiving the signal sent by Zone devices and controlling ACE devices. It can also send signals to WD (Warning Device). IAS CIE is the brain and a must of the whole security system. A ZigBee security system should contain at least one device equipped with IAS CIE function and IAC CIE is usually equipped in ZigBee coordinator.

2. IAS Ancillary Control Equipment, abbreviated as: IAS ACE

IAS ACE is the remote device in a security system with the authority to access IAS CIE device and control IAS system. The most common ACE devices are remotes and switches...etc. IAS ACE devices can also be used as Zone Sensor.

3. IAS Zone:

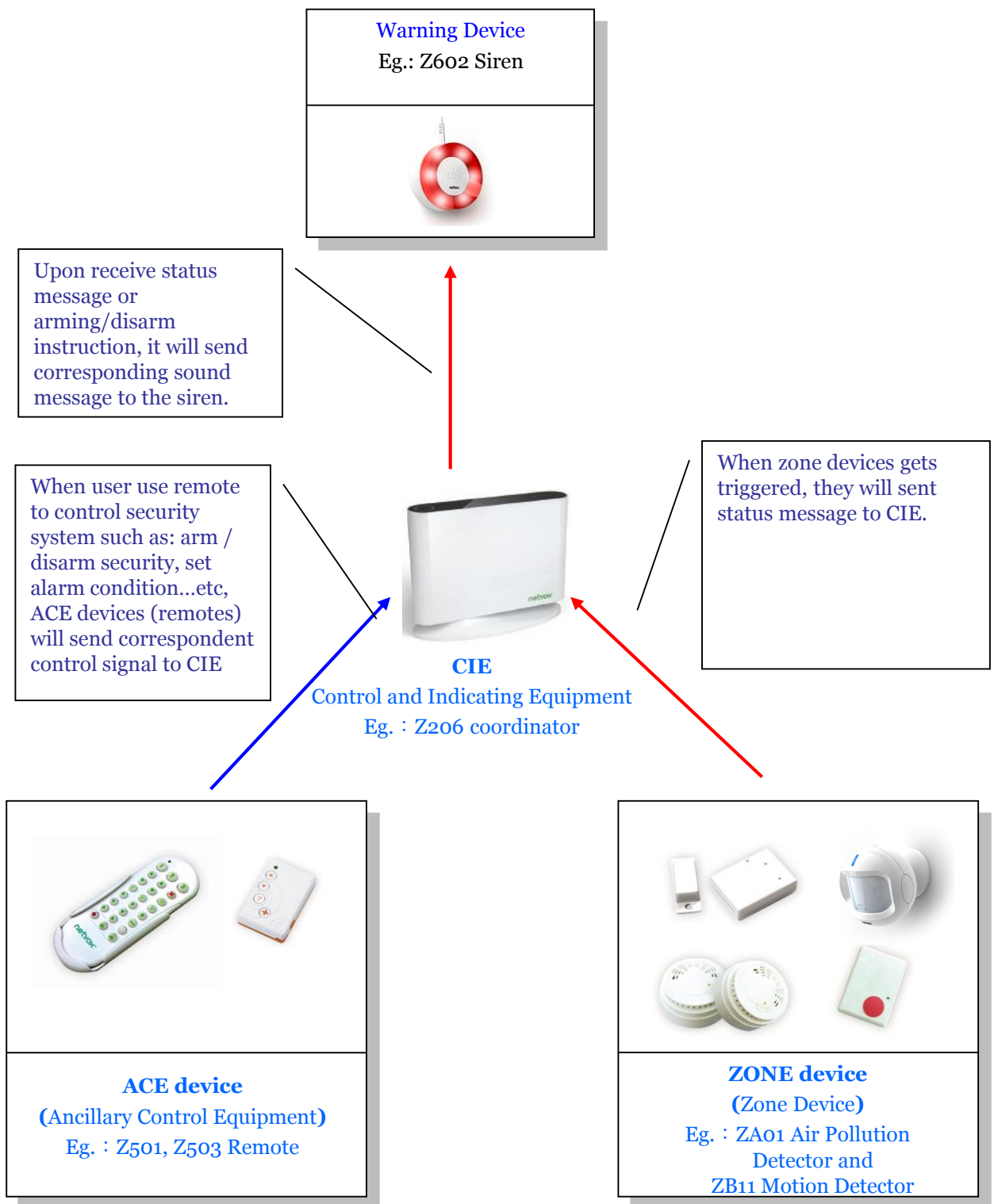
IAS Zone devices can detect alarm condition in certain area and send signals to CIE devices. IAS Zone devices support two types of alarm mode: low battery alert and security system alert. The most common IAS Zone devices are motion sensors and smoke sensors...etc.

4. IAS Warning Device, abbreviated as: IAS WD

When the alarm condition of IAS CIE is triggered, IAS alarm device will send audio or visual signal as alert indication. (alarm, flash...etc.). The most common IAS WD devices are alarm and siren...etc. IAS alarm devices can also be used as Zone Sensor.

Netvox Security System Device Type

IAS CIE	IAS ACE	IAS Zone	IAS WD
Z201B	Z501	Z311A/C	Z602A/B
		Z311B	
		ZA01A	
		ZB11	



Wireless Smart Home System



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*Note: Z201B is equipped with CIE function, it can be used as Coordinator. Z201 is the router for location system which serves the purpose of range extension and reference points

NETVOX TECHNOLOGY CO., LTD –

Netvox is a leading computer and telecommunication product manufacturer specialized in developing and manufacturing Wireless Communication Products. Netvox factory is an ISO-9001 and IECQ QC 080000 certified manufacturer. The head office is located in Tainan, Taiwan, R.O.C. and its factory is located at Torch Hi-Tech Industrial Development Zone, Xiamen, P.R.C. The newly built XIAMEN NETVOX TECHNOLOGY BUILDING covers an area of 15,600 square meters with the total investment of USD 15 million. There are more than 450 employees in the company, including 20 engineers and technicians; 20 Q.C. technicians and 30 administrative staff. Among the products 50 percent is sold abroad, and the yearly turnover is USD 30 million or so. A group of professional management staff, experienced R&D, Q.C., engineers & well-trained operators work together as a close team which leads the company to a perfect combination of maximum production capacity and superior quality and is supporting the company's sales and marketing as well.

The company has made the quality rule, quality goal and quality plan, and brought them to international level. Under the direction of quality policy "With the most effective and efficient measures to provide customers totally satisfactory products and services", all products from material procurement, production control, plastics injection to assembly, packing are under quality control. Moreover, as a result of the efficient teamwork of all company members and the economy growth and development of China, the company has gradually grown and made great success. In order to greet the 21st century, the company has devoted the development efforts to explore the high-tech telecommunication field. We will hand in hand with the friends who support and care NETVOX to create the new glory.





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