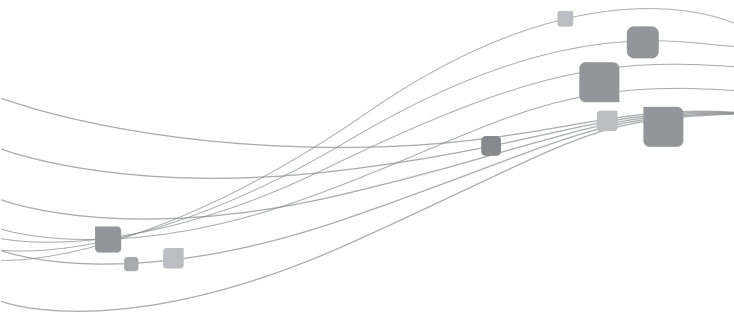


ZXHN H1600

Home Gateway

User Manual



ZTE CORPORATION

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1 Safety Precautions

Note

The users should read the usage cautions above carefully and will be responsible for any incident resulting from the violation of the above cautions.

Usage Cautions

- Read all the safety cautions carefully before using the device.
- Only use the accessories included in the package, such as power supply adapter.
- Do not extend the power cord, otherwise the device will not work.
- The power supply voltage must meet the requirements of the device input voltage (The voltage fluctuation range is less than 10%).
- Keep the power plug clean and dry to prevent any risk of electric shock or other dangers.
- Disconnect all the cables during a lightning storm to prevent the device from damage.
- Power off and unplug the power plug when the device is not in use for a long time.
- Do not attempt to open the covers of the device. It is dangerous to do so when the device is powered on.
- Power off and stop using the device under the conditions such as, abnormal sound, smoke, and strange smell. Contact the service provider for maintenance if the device is faulty.

Environment Requirements

- Ensure proper ventilation to the device. Place the device away from direct sunlight.
- Keep the device ventilated and dry. Never spill any liquid on the device.
- Do not place any object on the device to prevent any deformation or damage to the device.
- Do not place the device near any source of heat or water.

- Keep the device away from any household appliances with strong magnetic or electric fields, such as microwave oven and refrigerator.

Cleaning Requirements

- Before cleaning, power off the device, and unplug all the cables connected to the device, such as power cable, optical fiber, and Ethernet cable.
- Do not use any liquid or spray to clean the device. Use a soft dry cloth.

Environment Protection

- Do not dispose the device or battery improperly.
- Observe the local regulations about the equipment disposal or treatment.

Restrictions in the 5 GHz Band

According to Article 10(10) of Directive 2014/53/EU, the packaging shows that this radio equipment will be subject to some restrictions when placed on the market in Belgium(BE), Bulgaria(BG), the Czech Republic(CZ), Denmark(DK), Germany(DE), Estonia(EE), Ireland(IE), Greece(EL),Spain(ES), France(FR), Croatia(HR), Italy(IT),Cyprus(CY), Latvia(LV), Lithuania(LT), Luxembourg(LU), Hungary(HU), Malta(MT), Netherlands(NL), Austria(AT), Poland(PL), Portugal(PT), Romania(RO), Slovenia(SI), Slovakia(SK), Finland(FI), Sweden(SE), Turkey(TR), Norway(NO), Switzerland(CH), Iceland(IS), and Liechtenstein(LI).

The WLAN function for this device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range.

RF Exposure Information

The Maximum Permissible Exposure (MPE) level is calculated based on a distance of $d=20$ cm between the device and the human body. To maintain compliance with the RF exposure requirement, a separation distance of 20 cm between the device and the human should be maintained.

EU Declaration of Conformity

Hereby, ZTE Corporation declares that the radio equipment type ZXHN H1600 is in compliance with Directive 2014/53/EU, The full text of the EU declaration of conformity is available at the following Internet address:

<http://support.zte.com.cn/support/cer/EU>

Environmental Information

The equipment you purchased has required the extraction and use of natural resources for its production. It may contain substances that are hazardous to people's health and to the environment. To avoid putting such substances into our environment and to reduce pressure on our natural resources, we ask that you reuse or recycle your end-of-life equipment by using an accredited electronics take-back system.

The symbols below indicate that this product should be reused or recycled and not simply discarded. Please locate and use an appropriate reuse and recycling site. If you need more information on collection, reuse and recycling systems, contact your local or regional waste administration. You may also contact your equipment provider for more information on the environmental performances of these products.



2 Package Check

Please ensure the ZXHN H1600 package contains the following items.

Name	Quantity
ZXHN H1600	1
Power Adapter	1
RJ-45 Ethernet Cable	1
RJ-11 Telephone Cable	2
User Manual	1

Note

The list is only for reference. The actual contents may vary from the list.

If any of the items included in the package is incorrect, lost or damaged, please contact your service provider. If you need to replace the product, please keep the package and all the items in good condition.

3 Product Specifications

Table 3-1 describes the product specification of the ZXHN H1600.

Table 3-1 Product Specification

Technical Specifications	
Dimensions	226 mm (H) × 32 mm (D) × 156 mm (W)
Power adapter	Input: AC 100 V – 240 V, 50 Hz/60 Hz Output: DC 12.0 V, 2.0 A
Environment Requirements	
Operation temperature	0 °C to 40 °C (32 °F to 104 °F)
Storage temperature	–40 °C to 70 °C (–40 °F to 158 °F)
Operation humidity/ Storage humidity	5% – 95% (non-condensing)
Wi-Fi Radio Specifications	
Radio Frequencies	Maximum Output Power
Wi-Fi 2.4 GHz band: 2400 MHz–2483.5 MHz	EIRP: 20 dBm
Wi-Fi 5 GHz band: 5150 MHz–5250 MHz	EIRP: 23 dBm
Wi-Fi 5 GHz band: 5250 MHz–5350 MHz	EIRP: 23 dBm
Wi-Fi 5 GHz band: 5470 MHz–5725 MHz	EIRP: 30 dBm

4 Hardware Description

Front Panel

Figure 4-1 shows the indicators on the front panel of the ZXHN H1600.

Figure 4-1 The Front Panel

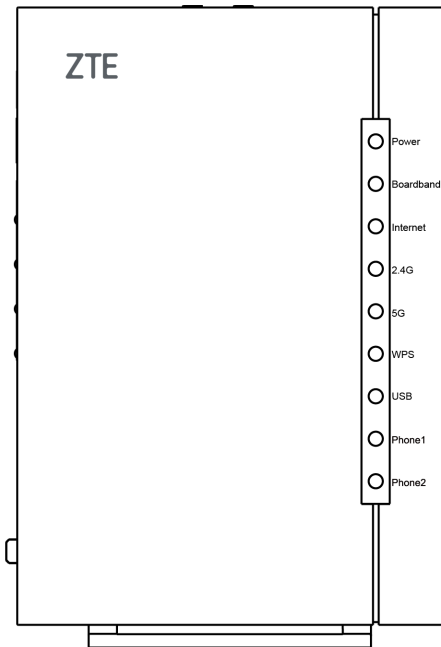


Table 4-1 describes the indicators on the front panel of the ZXHN H1600 unit.

Table 4-1 Descriptions of Indicators

LED Indicator	Status	Description
Power	Off	The device is powered off.
	Solid green	The device is powered on properly.
	Solid red	The device is performing self-detection or the self-detection fails.
Broadband (DSL)	Off	The DSL connection has not been established.
	Solid green	DSL synchronization is normal and the link Connection is normal.
	Flashing slowly green	Physical link exists, however carrier wave has not been detected.
	Flashing fast green	The device is in the handshaking process to establish the link connection.
Broadband (WAN)	Off	The equipment is not powered on or the WAN port is disabled.
	Solid green	The Ethernet connection has been established.
Internet	Off	The gateway is switched off.
	Solid green	The WAN connection is online. The device has a WAN IP address from IPCP, DHCP or statically configured. LED remains green in the case of disconnection due to idle timeout when PPP dial-on-demand is enabled. Green LED indicates that the routing connection state is up.
	Solid red	The WAN connection is dialing up or fails to get online. Device attempted to become IP connected and failed (no DHCP response, no PPPoE response, PPP authentication failed, no IP address from IPCP, etc).

LED Indicator	Status	Description
	Flashing green	The Internet connection has been established and the data is being transmitted or received.
2.4G	Off	WLAN RF switch is off.
	Solid green	WLAN RF switch is on.
	Flashing green	WLAN RF switch is on and the data is being transmitted or received, and the flashing frequency indicates Wi-Fi network traffic.
5G	Off	WLAN RF switch is off.
	Solid green	WLAN RF switch is on.
	Flashing green	WLAN RF switch is on and the data is being transmitted or received, and the flashing frequency indicates Wi-Fi network traffic.
WPS	Off	No WPS access or the WPS access of the terminal exceeds 5 minutes.
	Solid green	WPS access is successful. This solid-on light will be automatically off after 5 minutes.
	Flashing slowly green	WLAN terminal is in WPS accessing process.
	Flashing fast green	The WPS accessing of the WLAN terminal is faulty.
USB	Off	The device is powered off or the USB interface is not connected.
	Solid green	The USB interface is connected with USB device.
	Flashing green	Data is being transmitted or received via the USB interface.

LED Indicator	Status	Description
Phone1 Phone2	Off	The device has not been registered to the VOIP network.
	Solid green	The device has registered to the VOIP network.
	Flashing green	The associated telephone is off-hook.
LAN1\LAN2\ LAN3\LAN4	Off	The LAN connection has not been established.
	Solid green	The LAN connection has been established.
	Flashing green	Data transmission is in processing, The indicator flashes according to the LAN traffic.

*The LAN1\LAN2\LAN3\LAN4 status indicator is on the LAN1\LAN2\LAN3\LAN4 port of the ZXHN H1600.

Top Panel

Figure 4-2 shows the buttons on the top panel of the ZXHN H1600.

Figure 4-2 The Top Panel

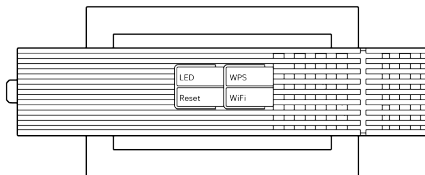


Table 4-2 describes the buttons on the top panel of the ZXHN H1600.

Table 4-2 Descriptions of the Top Panel

Button	Function
LED	LED control button. Press the button to turn off all the indicators on the panel. To turn on the indicators, press the button again.

Button	Function
Reset	Reset push button. During power on period, press this button for more than 5 seconds to reset the current settings to the factory default.
WPS	WPS Push Button, press this button to enable or disable the WPS function.
WiFi	WiFi dual-interfaces on/off button.

Side Panel

Figure 4-3 shows the buttons on the side panel of the ZXHN H1600.

Figure 4-3 The Side Panel

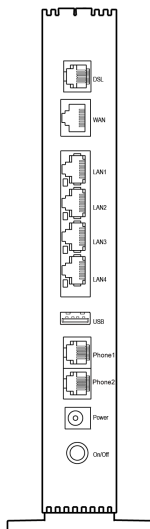


Table 4-3 describes the interfaces and buttons on the side panel of the ZXHN H1600.

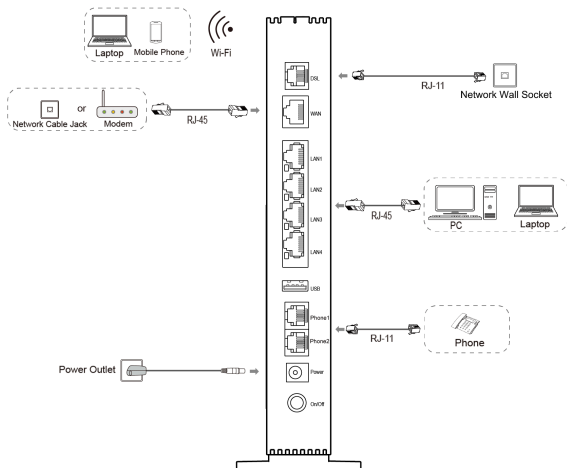
Table 4-3 Descriptions of the Side Panel

Interface/Button	Function
DSL	RJ-11 port. This port is used to connect the modem to the internet network wall socket via RJ11 cable.
WAN	RJ-45 port. It is used to connect to the uplink Ethernet access network.
LAN1\LAN2\ LAN3\LAN4	RJ-45 port. It is used to connect the modem to computer, STBs or other network devices.
USB	Standard USB 2.0 interface, connected to a USB storage device, printer or 3G Dongle connection.
Phone1 Phone2	RJ-11 port. It is used to connect to the phone through the telephone line.
Power	Power supply port. It is connected to the power adapter.
On/Off	Power switch. Power on or power off the device.

5 Hardware Connection

Figure 5-1 shows the devices that are connected to interfaces of the ZXHN H1600

Figure 5-1 Cable Connection



After the devices are connected to the ZXHN H1600 device, press the power button. When the corresponding indicators on the front panel are On, you can enjoy various services provided by the service provider.

The factors affecting the wireless network coverage range include the location of the product, distance between the product and a wireless terminal, number of obstacles, obstacle material and density, and interference source. It is recommended that you place the product in accordance with the following principles to maximize the strength of wireless signals.

- The product should be far away from the objects affecting wireless signal propagation, for example, an object with a high reflectivity such as a metallic object or a mirror.
- The product should be far away from an electrical appliance with a strong magnetic or electric field, for example, a microwave oven, a refrigerator, a wireless router, a cordless phone, or a Bluetooth product.
- The product should be installed on the same floor as the applied area.

- Do not put other objects on the product. Try to reduce the number of obstacles between the product and a wireless terminal.
- Horizontally place the product in the middle of the applied area and do not put it in a corner.
- Do not place the product at a high position while it is placed horizontally. The recommended height is 1.2 to 1.5 meters.

6 Troubleshooting

The Power indicator on the front panel is off after the power button is pressed.

- Power switch does not turn on.
- The power adapter is not correctly connected to the device. Be sure to use the power adapter supplied with the device.

The LAN indicator on the front panel is off after the device is powered on.

- The corresponding LAN link is not established.
- The Ethernet cable is not correctly connected to the LAN interface.
- The network device connected to the LAN interface is not powered on.

The WAN indicator on the front panel is off after the device is powered on.

- The WAN link is not established.
- The Ethernet cable is not correctly connected to the WAN interface.
- Please contact the service provider for help.

Unable to connect to the network.

- Check that the Ethernet cable is correctly connected to the WAN interface and the Ethernet cable is correctly connected to the LAN interface.
- Check that the WAN indicator on the front panel is on and the Internet indicator on the front panel is solid green or flashing green.

Restore the factory default settings.

After the power is on, use a needle to press the button for over 5 seconds to restore the default factory settings.

CERTIFICATION

CHECKER _____

DATE _____

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