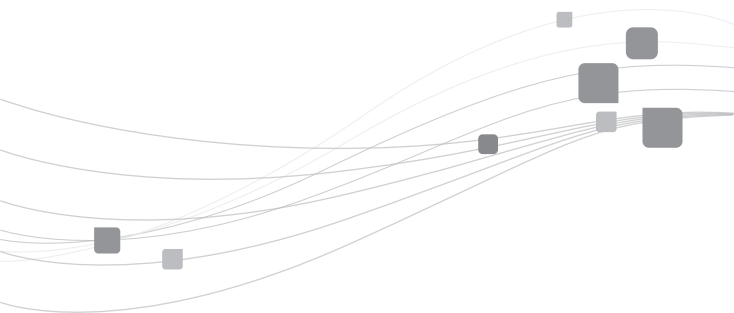


ZXHN F680

GPON ONT

User Manual



ZTE CORPORATION

ZXHN F680 GPON ONT User Manual

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1 Safety Precautions



Note:

Before using the device, read the following safety precautions. ZTE bears no liability to the consequences incurred by violation of the safety instructions.

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.
- Do not directly stare at the optical interface to prevent any eye injuries.
- 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 and 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 power adapter improperly.
- Observe the local regulations about the equipment disposal or treatment.

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 Content

Please make sure the ZXHN F680 package contains the items, refer to Table 2-1.

Table 2-1 Package Contents

Name	Quantity
ZXHN F680Unit	One
AC-DC power supply adapter	One
RJ-45 Ethernet cable	One
User manual	One



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 Features

Interfaces

- GPON interface: GPON standard, SC/APC, comply with ITU G.984.1–G.984.5 standards
- Ethernet interface: Four auto-sensing 100/1000 Mbps RJ-45 interface in compliance with IEEE 802.3 and IEEE 802.3u.
- Phone interface: Two POTS ports with RJ-11 connector.
- WLAN interface: Complies with IEEE 802.11a/n/ac, IEEE 802.11b/g/n.

- USB interface: One USB 2.0 interface.

Technical Features

- Broadband service access: Connected to Internet through the GPON access method.
- Ethernet service access: Provides Ethernet interfaces, connected to the Ethernet devices, such as the user PC. Provides the Internet access and IPTV services.
- Phone service access: Supports SIP protocol.
- WLAN: Users can connect to the ZXHN F680 through WLAN.
- Data sharing, backup, and restoration: Provides the USB 2.0 interface connected to a USB storage device for file sharing, fast backup, and data restoration.
- Security: Provides multi-level authentication based on the device, user and service, and provides the data channel encryption for safety.
- QoS: Provides QoS services meeting the requirements of various services for the local devices and network
- Network management: Provides multi-mode network management.

4 Indicator

Figure 4-1 shows the indicators on the front panel of the ZXHN F680 unit.

Figure 4-1 Indicators of the ZXHN F680 Unit

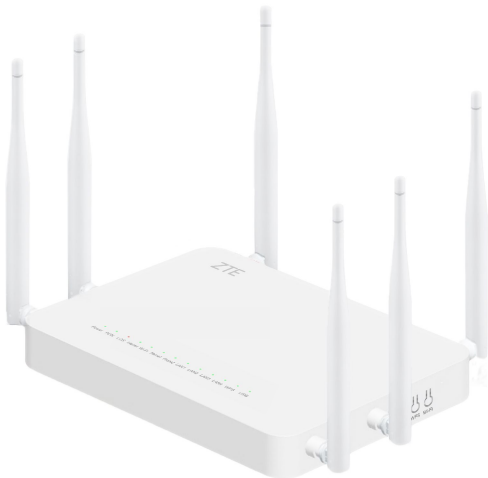


Table 4-1 describes the indicators on the front panel of the ZXHN F680 unit.

Table 4-1 Indicators on the Front Panel

Indicator	Status	Description
Power	Off	The device is powered off.
	Solid green	The device is powered on.
PON	Off	The device is powered off or the device has not started the registration process.
	Solid green	The device registration is successful.
	Slow Flashing green	The device is registering.
	Fast Flashing green	The device is upgrading.

Indicator	Status	Description
LOS	Off	The device is powered off or the device received optical power is normal.
	Solid red	The optical transmitter of the PON interface is powered off.
	Flashing red	The received optical power is less than the optical receiver sensitivity.
Internet	Off	The device is powered off or there is no WAN connection with Internet properties configured, or the session is disconnected on user request or remote peer request (PPP disconnected, DHCP address released or no static IP address available on the Internet WAN connection).
	Solid green	There is IP connected (the ONT has a Internet WAN IP address from IPCP, DHCP or statically configured).
	Flashing green	IP traffic is passing through the Internet WAN connection (either direction)
Wi-Fi	Off	The device is powered off or the wireless interface is disabled.
	Solid green	The wireless interface is enabled but no data is being transmitted or received.
	Flashing green	Data is being transmitted or received on the wireless interface.
Phone1 Phone2	Off	The device is powered off or the device is unable to register on the soft switch/IMS.
	Solid green	The device has registered on the soft switch/IMS but no traffic is being transmitted.
	Flashing green	The voice service traffic is being transmitted or received.
LAN1– LAN4	Off	The device is powered off or the network link is not established.
	Solid green	The network link has been established but no data is being transmitted or received.
	Flashing green	Data is being transmitted or received via the Ethernet port.
WPS	Off	The device is powered off or the WPS function is disabled.
	Solid green	Some device has connected the device Wi-Fi using WPS.
	Flashing green	Some device is trying to connect to the device Wi-Fi using WPS.
USB	Off	The device is powered off or the USB interface is not connected.
	Solid green	The USB interface is connected and operating in host mode, but no data is being transmitted.
	Flashing green	Data is being transmitted or received via the USB interface.

5 Interface

Figure 5-1 shows the interfaces and buttons of the unit.

Figure 5-1 Interfaces and Buttons on the Back Panel

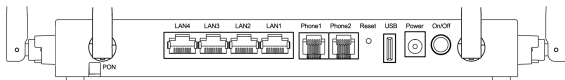


Table 5-1 describes the interfaces and buttons of the unit.

Table 5-1 Descriptions of the Interfaces and Buttons

Interface/Button	Description
PON	PON interface.
LAN1– LAN4	RJ-45 Ethernet interface.
Phone1/Phone2	RJ-11 telephone interface, connected to the telephone with RJ-11 telephone cable.
Reset	Reset key used when the device is powered on and activated. <ul style="list-style-type: none">■ By using a thin needle, press and hold the Reset button for one second to restart the device. The user's settings information will not be lost.■ By using a thin needle, press and hold the Reset button for more than five seconds to restore the device to the factory settings.
USB	Standard USB 2.0 interface, connected to a USB storage device for file sharing, fast backup, and data restoration.
Power	12 V DC power connector.
On/Off	Power switch.
WPS	Wi-Fi protection button. After pushing the WPS button for longer than 0.4s, the WPS function will be enabled.
Wi-Fi	WLAN button. After pushing the Wi-Fi button for longer than 0.4s, the WLAN function will be enabled or disabled.

- The Wi-Fi button, WPS button are on a side of the ZXHN F680 device.

6 Product Specification

For the product specifications of the ZXHN F680 , refer to Table 6-1.

Table 6-1 Product Specifications

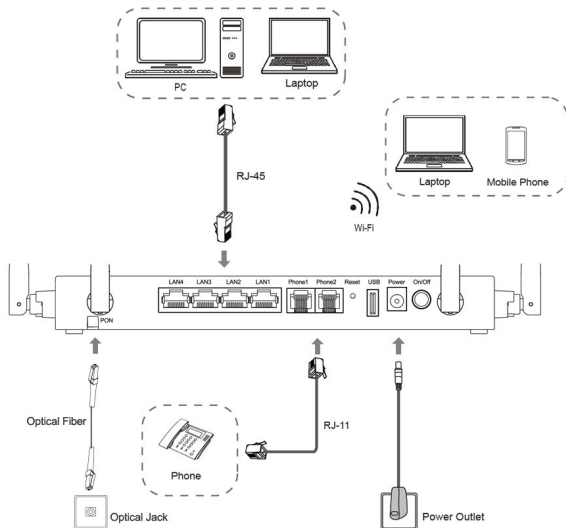
Technical Specifications	
Dimensions	220 mm × 160 mm × 31 mm (Width × Depth × Height ,antenna not included)

Certification	Wi-Fi Certification
Power adapter	Output: DC 12 V, 1.5 A
Environment Requirements	
Operation temperature	0 °C - 40 °C (32 °F - 104 °F)
Operation humidity	5% - 95% (non-condensing)

7 Cable Connection

Figure 7-1 shows the devices that are connected to the ZXHN F680 device.

Figure 7-1 Entire Connection



Verify that the cable connections are correct, and press the On/Off button. After the power indicator is lit and other indicators operate properly, services of the carrier can be used.

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.

8 Troubleshooting

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

The power adapter is not correctly connected to the device. Be sure to use the power adapter supplied with the device.

The LOS indicator is flashing red or solid red after the device is powered on.

- The optical fiber is not correctly connected to the ONT PON interface.
- The optical fiber is broken or damaged.
- If the indicator is solid red or keeps flashing, please contact the service provider for maintenance.

The PON indicator on the front panel is off or flashing green after the device is powered on.

- The GPON link is not established.
- The ONT is not registered.
- Please contact the service provider for help.

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

The telephone function is abnormal. Please contact the service provider for help.

9 FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency

energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example- use only shielded interface cables when connecting to computer or peripheral devices).

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Caution!

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CERTIFICATION

CHECKER _____

DATE _____

ZTE

Address: No.55, Hi-tech Road South,
ShenZhen, P.R.China

Postcode: 518057

Tel: +86-755-2677 1900

URL: <http://support.zte.com.cn>

E-mail: support@zte.com.cn