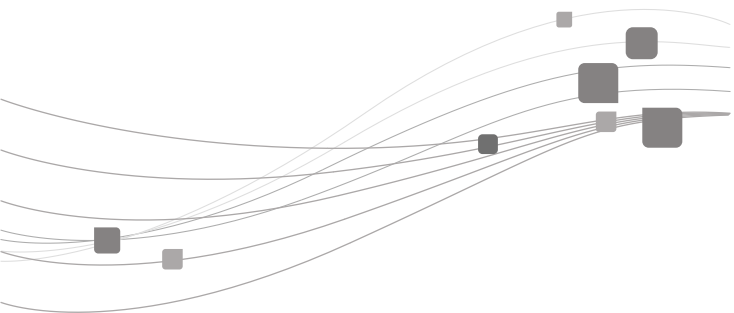# ZXHN F680

GPON ONT

User Manual

ZTE CORPORATION

ZXHN F680
GPON ONT
User Manual

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1 Safety Precautions

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.

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.

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 battery improperly.
- Observe the local regulations about the equipment disposal or treatment.

2 Package Content

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

Table 2-1 Package Contents

Item	Name	Quantity
	ZXHN F680 unit	One
	AC-DC power supply adapter	One
	RJ-45 Ethernet cable	One

📝 **Note:**

A socket outlet that is installed near equipment and that shall be easily accessible.

One *ZXHN F680 GPON ONT User Manual* is delivered with the product.

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 Indicator

Figure 3-1 shows the indicators on the front panel of the ZXHN F680.

Figure 3-1 Indicators of the ZXHN F680

Table 3-1 describes the indicators on the front panel of the ZXHN F680 .

Table 3-1 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 ONT registration fails or the system is not powered on.
	Solid green	The ONT registration is successful.
	Flashing green	The ONT is being registered.
LOS	Off	The ONT 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, or the device is downloading a program package.
Internet	Off	The device is not powered on, there is no WAN connection with Internet properties configured, or the WAN configuration is not effective.
	Solid green	There is a WAN connection with Internet properties configured and the WAN configuration is effective.
	Flashing green	Data is being transmitted.
Phone1、Phone2	Off	The device is not powered on or the voice service cannot be registered on the softswitch.
	Solid green	The voice service is successfully registered on the softswitch, but there is no service traffic.
	Flashing green	There is voice service traffic.

Indicator	Status	Description
LAN1–LAN4	Off	The device is not powered on 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.
2.4GHz	Off	The device is not powered on or the wireless interface is disabled.
	Solid green	The wireless interface is enabled.
	Flashing green	Data is being transmitted.
5GHz	Off	The device is not powered on or the wireless interface is disabled.
	Solid green	The wireless interface is enabled.
	Flashing green	Data is being transmitted.
WPS	Yellow	Negotiation is in progress.
	Green	Negotiation is successful.
	Red	Session overlapping detection is being implemented or negotiation fails.
BBU	Off	There is no standby power supply or the standby power supply fails.
	Solid green	The standby power supply is used and operates properly.
	Flashing green	The standby power supply is used but operates improperly. For example, undervoltage occurs.
USB1、USB2	Off	The device is not powered on 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 on the interface.

4 Interface

Figure 4-1 shows the interfaces and buttons on the side panel of the ZXHN F680.

Figure 4-1 Interfaces and Buttons on the Side Panel

Table 4-1 describes the interfaces and buttons on the side panel of the ZXHN F680.

Table 4-1 Descriptions of the Interfaces and Buttons on the Side Panel

Interface/Button	Description
On/Off	Power switch.
WPS	Wi-Fi protection button. To enable the Wi-Fi protection function, press this button, so that users can access the network without entering their passwords.
Wi-Fi	WLAN button for enabling or disabling the WLAN function.
USB2	Standard USB 3.0 interface, connected to a USB storage device for file sharing, fast backup, and data restoration.

Figure 4-2 shows the interfaces on the back panel of the ZXHN F680.

Figure 4-2 Interfaces on the Back Panel

Table 4-2 describes the interfaces on the back panel of the ZXHN F680.

Table 4-2 Descriptions of the Interfaces on the Back Panel

Interface	Description
Power	12 V DC power connector.
USB1	Standard USB 2.0 interface, connected to a USB storage device for file sharing, fast backup, and data restoration.
Reset	Reset button, when the power is on, use a needle to press the button for over 5 seconds to restore the default settings.
LAN1– LAN4	RJ-45 Ethernet interface.
Phone1、Phone2	RJ-11 telephone interface, connected to the telephone with RJ-11 telephone cable.

Interface	Description
PON	PON interface.
BBU	Standby power supply interface, connected to a standby power supply through a dedicated cable.

5 Product Features

Interfaces

- GPON interface: GPON standard, SC/APC, comply with ITU G.984.1–G.984.5 standards
- Ethernet interface: auto-sensing RJ-45 interface in compliance with IEEE 802.3 and IEEE 802.3u.
- Phone interface: RJ-11
- WLAN interface: complies with IEEE 802.11ac, IEEE 802.11b, IEEE 802.11g and IEEE 802.11n.
- USB interface: standard USB 2.0 and USB 3.0 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 and USB 3.0 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.

6 Technical Specification

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

Table 6-1 Technical Specifications
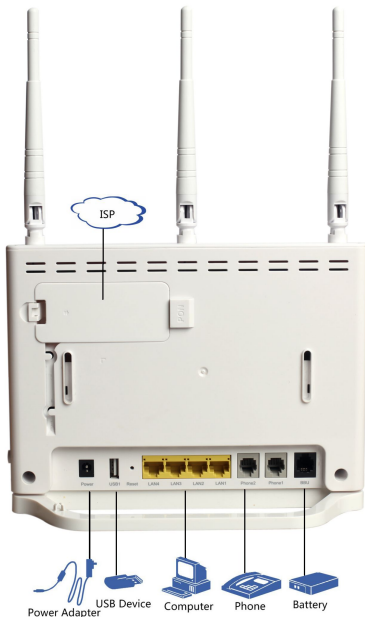
Item	Specification
Dimension	220 mm (W) × 35 mm (D) × 310 mm (H)(Antenna included)
Rated current	2 A

Item	Specification
Rated voltage	12 V DC
Operation temperature	0℃ ~ 40℃
Operation humidity	5% ~ 95%

7 Cable Connection

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

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.

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 equipment 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.

ZTE

Tomorrow never waits

CERTIFICATION
CHECKER
DATE
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