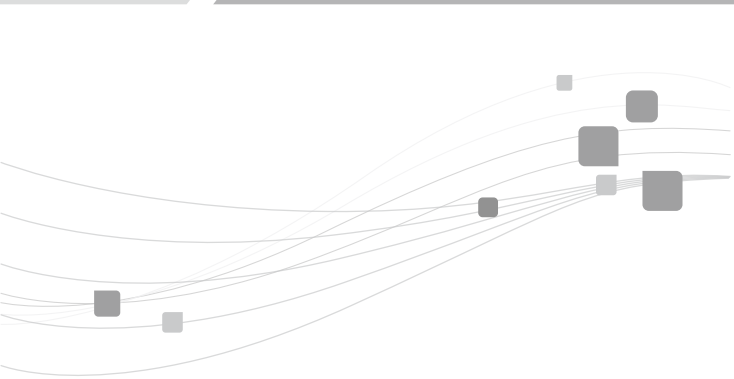


ZXHN F660

GPON ONT

User Manual



ZTE CORPORATION

ZXHN F660 GPON ONT User Manual

Manual No: SJ-20140718085850-002
Edition Time: 2017-06-22 (R1.0)

LEGAL INFORMATION

Copyright © 2017 ZTE CORPORATION.

The contents of this document are protected by copyright laws and international treaties. Any reproduction or distribution of this document or any portion of this document, in any form by any means, without the prior written consent of ZTE CORPORATION is prohibited. Additionally, the contents of this document are protected by contractual confidentiality obligations.

All company, brand and product names are trade or service marks, or registered trade or service marks, of ZTE CORPORATION or of their respective owners.

This document is provided “as is”, and all express, implied, or statutory warranties, representations or conditions are disclaimed, including without limitation any implied warranty of merchantability, fitness for a particular purpose, title or non-infringement. ZTE CORPORATION and its licensors shall not be liable for damages resulting from the use of or reliance on the information contained herein.

ZTE CORPORATION or its licensors may have current or pending intellectual property rights or applications covering the subject matter of this document. Except as expressly provided in any written license between ZTE CORPORATION and its licensee, the user of this document shall not acquire any license to the subject matter herein.

ZTE CORPORATION reserves the right to upgrade or make technical change to this product without further notice.

Users may visit ZTE technical support website <http://support.zte.com.cn> to inquire related information.

The ultimate right to interpret this product resides in ZTE CORPORATION.

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.

RF exposure information

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

2 Package Content

Please make sure the ZXHN F660 package contains the following items.

Item	Quantity
ZXHN F660 unit	One
AC-DC power supply adapter	One
RJ-45 Ethernet cable	One
User manual	One



Note:

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

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 F660 unit.

Figure 3-1



Table 3-1 describes the indicators on the front panel of the ZXHN F660 unit.

Table 3-1

Indicator	Status	Description
Power	Off	No power
	Solid green	Power 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 ONT received optical power is lower than the optical sensitivity of the receiver.

Indicator	Status	Description
Internet	Off	The device is not powered on or the ethernet connection does not exit.
	Solid red	The internet connection has been established.
	Flashing red	The data is transmitted via internet connection.
Wi-Fi	Off	The device is not powered on or the wireless interface is disabled.
	Solid green	The wireless interface is enabled.
	Flashing green	The data is being transmitted or received.
Phone1 – Phone2	Off	The device is not powered on or it cannot be registered to the soft switch.
	Solid green	The device has been registered to the soft switch, but there are no POTS services.
	Flashing green	The POTS communication service is being provided.
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.
WPS	Solid yellow	The negotiation is being made.
	Solid green	The negotiation is successful.
	Solid red	The session overlapping detection or negotiation fails.
USB	Off	The device is not powered on or the USB interface is not connected.
	Solid green	The USB interface is connected to the USB storage device, or connected to the printing device, but no data is being transmitted or received.
	Flashing green	The data is being transmitted or received.

4 Interface

Figure 4-1 shows the interfaces and buttons of the ZXHN F660 unit.

Figure 4-1



Table 4-1 describes the interfaces and buttons on the back panel of the ZXHN F660 unit.

Table 4-1

Interface/Button	Description
On/Off	Power switch.
Power	12 V DC power connector.
USB	USB 2.0 interface.
Reset	Reset button, when the power is on, use a needle to press the button for over 5 seconds to restore the default settings.
Wi-Fi	Enable/disable the Wi-Fi function.
WPS	Enable/disable the Wi-Fi protection. When the Wi-Fi protection is enabled, users can access the network without password.
LAN1 – LAN4	RJ-45 Ethernet interface.
Phone1 – Phone2	RJ-11 telephone interface, connected to the telephone with RJ-11 telephone cable.
PON	PON interface.

5 Product Features

Interfaces

- GPON interface: GPON standard, SC/APC, comply with ITU G.984.1–G.984.5 standards.
- Ethernet interface: Four GE interfaces, RJ-45, comply with IEEE 802.3 and IEEE 802.3u standards.
- Phone interface: RJ-11.
- Wi-Fi interface: Comply with IEEE 802.11n standard.
- USB Interface: Standard USB 2.0 interface.

Technical Features

- Broadband service access: Connected to Internet through the GPON access method.
- Ethernet service access: Provides GE Ethernet interfaces, connected to the Ethernet devices, such as the user PC. Provides the Internet access and IPTV services.
- Phone service access: Supports SIP, H.248 protocol.
- Wi-Fi service access: Provides Internet service for the users through the WLAN method.
- Data sharing, backup and restore: Provides USB 2.0 interface to connect to the USB storage device for file sharing, quick backup, and data restoring.
- 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.

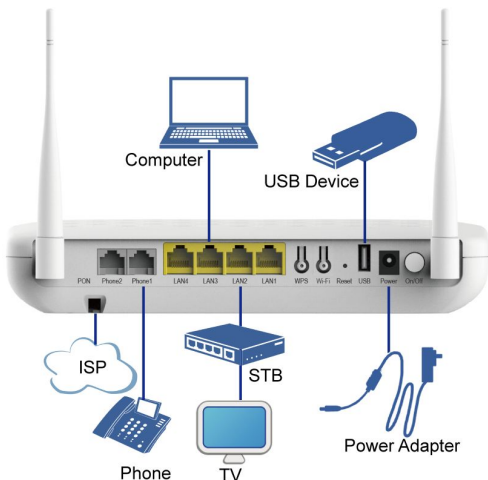
6 Product Specifications

Technical Specifications	
Dimension	220mm × 160mm × 44mm (Width × Depth × Height, antenna unincluded)
Certification	CE Certification and Wi-Fi Certification
Power adapter	Input: AC 100 V – 240 V, 50 Hz/60 Hz 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)
Wi-Fi Radio Specifications	

Frequency bands	Maximum Output Power
802.11b	15 ~ 19 dBm
802.11g	14 ~ 18dBm
802.11n(HT20)	14 ~ 18dBm
802.11n(HT40)	14 ~ 18dBm

7 Cable Connection

shows the devices that are connected to the ZXHN F660 device.



After the devices are connected to the ZXHN F660 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.

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.

FCC Radiation Exposure Statement

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-

users and installers must be provided with antenna installation instructions and consider removing the no-collocation statement.

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.

ZTE

Tomorrow never waits

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