HG659 Home Gateway
Quick Start

1 Selecting Connection Mode

HG659 is capable of utilizing DSL or Ethernet uplink connection. By integrating the foreign exchange station (FXS) module, the HG659 can provide users with voice service over IP.

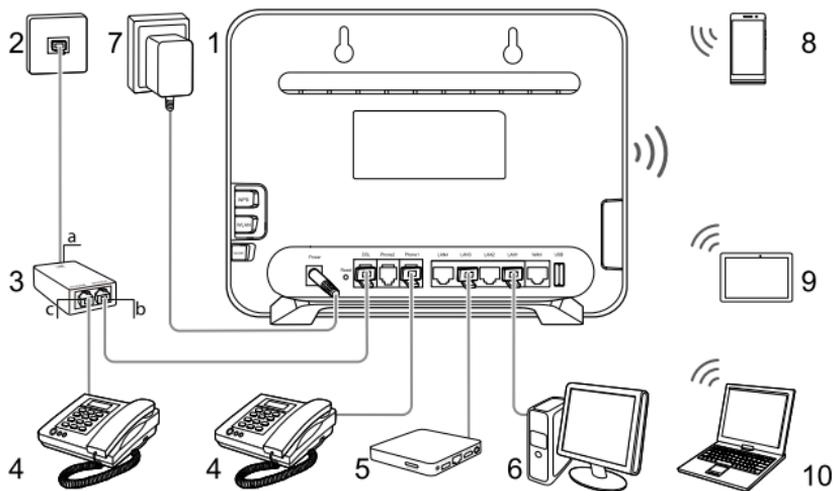| Scenario	Connection Mode
When you use the DSL broadband service at your home, you want to access Internet by the telephone line port.	Connect the DSL interface on the HG659 to the telephone jack on the wall.
When you use the Ethernet broadband service at your home, you want to access Internet by the Ethernet interface.	Connect the WAN interface on the HG659 to the Network jack on the wall.

2 Connecting Cables

Installing the HG659 on a DSL Broadband Network

In some communities, Internet service provider uses telephone lines to provide broadband access services.

If you have subscribed to DSL broadband, you can connect the HG659 to a telephone port for Internet access.

Connect your devices in the sequence indicated in the following figure.

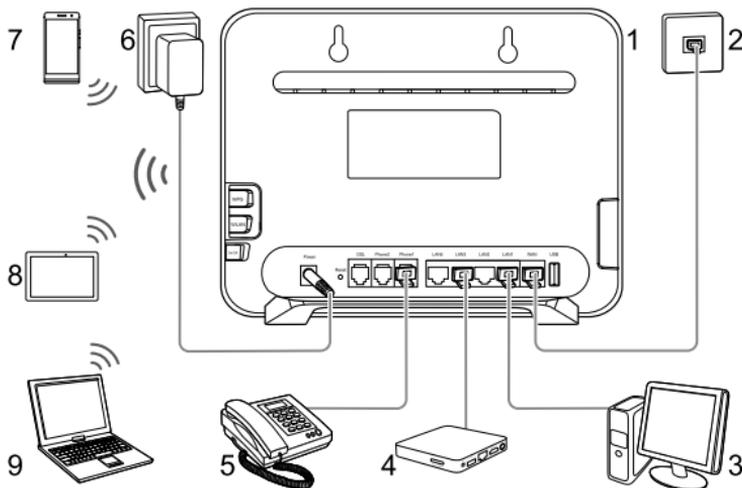| 1 | HG659 | 2 | Telephone wall jack | 3 | Splitter |
4	Telephone	5	STB	6	Desktop computer
7	Power adapter	8	Smart phone	9	Pad
10	Laptop computer				
a	LINE port	b	Modem port	c	Phone port

- The figures in this guide are for reference only. The appearance and display features may vary slightly depending on the actual product version.
- When configuring the HG659 for the first time, use an Ethernet cable to connect the HG659 to a computer.

Installing the HG659 on an Ethernet Broadband Network

In some communities, Internet service provider uses Ethernet interfaces as Internet interfaces. On this network, your PC is directly connected to the Internet through the Ethernet interface provided by the network service provider.

If you have subscribed to digital Ethernet broadband, you can connect the HG659 to an Ethernet interface for Internet access.

Connect your devices in the sequence indicated in the following figure.

1	HG659	2	Network interface on the wall	3	Desktop computer
4	STB	5	Telephone	6	Power adapter
7	Smart phone	8	Pad	9	Laptop computer

3 Powering On

To turn the HG659 on, press the power button.

After the HG659 is powered on, the HG659 indicators turn on. The following table lists how the indicators behave when the HG659 is operating correctly. If the indicators do not behave as expected, ensure that everything is plugged in correctly.

Indicator	Expected State	Description
Power	Steady green	The HG659 is powered on.
WAN	Steady green	● A DSL connection has been set up and activated. ● A WAN connection has been set up.
	Blinking green	A DSL connection is being activated.
Internet	Steady green	The HG659 is connected to the Internet in router mode, but no data is being transmitted.
	Blinking green	The HG659 is connected to the Internet in router mode, and data is being transmitted.

Indicator	Expected State	Description
WLAN	Steady green	The HG659 has WLAN enabled, but is not transmitting data.
	Fast blinking green (blinks twice per second)	The HG659 has WLAN enabled, and data is being transmitted.
	Slow flashing green (blinks once per second)	The HG659 is attempting to connect to a wireless client over the WLAN using the WPS function. This process lasts for no longer than 120 seconds.
VoIP	Steady green	The HG659 is registered with a SIP server, but no data is being transmitted.
	Blinking green	The HG659 is registered with a SIP server, and data is being transmitted.
LAN1–LAN4	Steady green	The LAN port is connected to an Ethernet device (such as a computer) with a network cable, but no data is being transmitted.
	Blinking green	The LAN port is connected to an Ethernet device with a network cable, and data is being transmitted.
USB	Steady green	The USB port is connected to an USB device, but no data is being transmitted.
	Blinking green	The USB port is connected to an USB device, and data is being transmitted.

4 Setting the Computer IP Address

Before logging in to the HG659 web page, set the IP address of the computer that will be used for the login.

On Windows 7

1. Click 📶 in the lower right corner of your desktop. Choose **Open Network and Sharing Center**.
2. Choose **Change adapter settings**. Right-click **Local Area Connection** and choose **Properties**.
3. Double-click **Internet Protocol Version 4 (TCP/IPv4)**.
4. Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**. Click **OK**.

5 **Setting Network Access Parameters**

Configuring a Connection to Access the Internet

The HG659 supports you to do not need to install dial-up software or perform dial-up operations on your computer and just following the wizard page.

To set up a connection to access the Internet:

1. Open a browser. In the address box, enter **192.168.1.1**. Press **Enter**.

2. Enter the login user name (**user** by default) and password (**HuaweiUser** by default). Click **Log in**.

i
- The system will be locked if you input incorrect user name or password three consecutive times. After one minute, it will be unlocked.
- To protect against unauthorized access, change the password after the first login. You can change the account parameters on **Maintain** > **Account Management** page. When password modification is successful, this page will jump to the login page. Use the new password to log in.
- If you do not perform any operations after logging in to the system for five minutes you will exit the system and the system automatically returns to the login interface.

3. Choose **Home** and click **Start Wizard**.

4. On the **I want to**...**Connect to the Internet** page, click **Next**.

5. The HG659 detects the network connection automatically. In the displayed **Internet connected** window, click **Finish**.

i
If a window requiring Internet account and password is displayed for you, input the correct Internet account and password provided by the Internet service provider. Then, click **Connect**.

After you complete the preceding settings, check the status of the **Internet** indicator light. When the **Internet** indicator light turns steady green, you can start browsing the Internet.

You need to perform the preceding operations on a computer once only. The next time you power on your computer, you can browse the Internet without performing the same configurations.

Configuring a Wireless Account

After you complete the preceding settings, you will see the **I want to Set Up WLAN** page used to configure the wireless account.

i
The default SSID and WLAN key printed on the HG659's rear panel are unique and secure. If you do not want to change them, just turn the WLAN switch on.

For security reasons or to make the password easy to remember, you can change the wireless network name and password as follows:

1. On the **I want to Set Up WLAN** page, choose the 2.4 GHz or the 5 GHz WLAN network.
2. Enter your desired SSID (WLAN name) and WLAN password.
3. Click **Save**.

6 **Wireless Connection Setup**

The wireless configuration software provided by Windows is used as an example to describe how to set up a wireless connection.

On Windows 7

1. Click 📶 in the lower right corner of your desktop.
2. From the wireless network list, select the WLAN provided by the HG659. Click **Connect**.
3. In the displayed dialog box, enter the WLAN password and click **OK**.
4. In the wireless network list, check the WLAN connection status. If the status is **Connected**, the computer is wirelessly connected to the HG659.

7 **Safety Information**

This section contains important information about the operation of your device. It also contains information about how to use the device safely. Read this information carefully before using your device.

Electronic device

Do not use your device if using the device is prohibited. Do not use the device if doing so causes danger or interference with other electronic devices.

Interference with medical equipment

- Follow rules and regulations set forth by hospitals and health care facilities. Do not use your device where prohibited.
- Some wireless devices may affect the performance of hearing aids or pacemakers. Consult your service provider for more information.
- Pacemaker manufacturers recommend that a minimum distance of 15 cm be maintained between a device and a pacemaker to prevent potential interference with the pacemaker. If using a pacemaker, hold the device on the side opposite the pacemaker and do not carry the device in your front pocket.

Areas with flammables and explosives

- Do not use the device where flammables or explosives are stored (in a gas station, oil depot, or chemical plant, for example). Using your device in these environments increases the risk of explosion or fire. In addition, follow the instructions indicated in text or symbols.
- Do not store or transport the device in containers with flammable liquids, gases, or explosives.

Operating environment

- Avoid dusty, damp, or dirty environments. Avoid magnetic fields. Using the device in these environments may result in circuit malfunctions.
- Before connecting and disconnecting cables, stop using the device and disconnect it from the power supply. Ensure that your hands are dry during operation.
- Place the device on a stable surface.
- Keep the device away from electronic appliances that generate strong magnetic or electric fields, such as a microwave oven or refrigerator.
- During thunderstorms, power off your device and remove all cables connected to it to protect against lightning strikes.
- Do not use your device during thunderstorms to protect your device against any danger caused by lightning.
- Ideal operating temperatures are 0°C to 40°C. Extreme heat or cold may damage your device or accessories.
- Keep the device and accessories in a well-ventilated and cool area away from direct sunlight. Do not enclose or cover your device with towels or other objects. Do not place the device in a container with poor heat dissipation, such as a box or bag.
- To protect your device or accessories from fire or electrical shock hazards, avoid rain and moisture.
- Keep the device away from sources of heat and fire, such as a heater, microwave oven, stove, water heater, radiator, or candle.
- Do not place any object, such as a candle or a water container, on the device. If any foreign object or liquid enters the device, immediately stop using it, power it off, and remove all cables connected to it. Then, contact an authorized service center.
- Observe local laws and regulations, and respect the privacy and legal rights of others.
- Do not block device openings. Reserve a minimum of 10 cm around the device to dissipate heat.
- Stop using your device or applications for a while if the device is overheated. If skin is exposed to an overheated device for an extended period, low temperature burn symptoms, such as red spots and darker pigmentation, may occur.
- Do not touch the device's antenna. Otherwise, communication quality may be reduced.
- Do not allow children or pets to bite or suck the device or accessories. Doing so may result in damage or explosion.
- The device should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

- Keep the device in a place with good reception. The distance between the device and other metal materials (such as metal brackets or metal doors and windows) should be greater than 25 cm and the distance between the device should be greater than 30 cm.

Child's safety

Comply with all precautions with regard to child's safety. Letting children play with the device or its accessories may be dangerous. The device includes detachable parts that may present a choking hazard. Keep away from children.

Accessories

- Using an unapproved or incompatible power adapter, charger or battery may cause fire, explosion or other hazards.
- Choose only accessories approved for use with this model by the device manufacturer. The use of any other types of accessories may void the warranty, may violate local regulations and laws, and may be dangerous. Please contact your retailer for information about the availability of approved accessories in your area.

Power adapter safety

- The power plug is intended to serve as a disconnect device.
- For pluggable devices, the socket-outlet shall be installed near the devices and shall be easily accessible.
- Unplug the power adapter from electrical outlets and the device when not in use.
- Do not drop or cause an impact to the power adapter. If it is damaged, take it to an authorized service center for inspection.
- If the power cable is damaged (for example, the cord is exposed or broken), or the plug loosens, stop using it at once. Continued use may lead to electric shocks, short circuits, or fire.
- Do not touch the power cord with wet hands or pull the power cord to disconnect the power adapter.
- Do not touch the device or the power adapter with wet hands. Doing so may lead to short circuits, malfunctions, or electric shocks.
- If your power adapter has been exposed to water, other liquids, or excessive moisture, take it to an authorized service center for inspection.
- Ensure that the power adapter meets the requirements of Clause 2.5 in IEC60950-1/EN60950-1/UL60950-1 and has been tested and approved according to national or local standards.

Cleaning and maintenance

- During storage, transportation, and operation of the device, keep it dry and protect it from collision.
- Keep the device and accessories dry. Do not attempt to dry it with an external heat source, such as a microwave oven or hair dryer.
- Do not expose your device or accessories to extreme heat or cold. These environments may interfere with proper function and may lead to fire or explosion.
- Avoid collision, which may lead to device malfunctions, overheating, fire, or explosion.

- If the device is not going to be used for an extended period of time, power it off, and remove all cables connected to it.
- If anything unusual occurs (for example, if the device emits smoke or any unusual sound or smell), immediately stop using it, power it off, remove all cables connected to it, and contact an authorized service center.
- Do not trample, pull, or excessively bend any cable. Doing so may damage the cable, causing the device to malfunction.
- Before you clean or maintain the device, stop using it, stop all applications, and disconnect all cables connected to it.
- Do not use any chemical detergent, powder, or other chemical agents (such as alcohol and benzene) to clean the device or accessories. These substances may cause damage to parts or present a fire hazard. Use a clean, soft, and dry cloth to clean the device and accessories.
- Do not place magnetic stripe cards, such as credit cards and phone cards, near the device for extended periods of time. Otherwise the magnetic stripe cards may be damaged.
- Do not dismantle or remanufacture the device and its accessories. This voids the warranty and releases the manufacturer from liability for damage. In case of damage, contact an authorized service center for assistance or repair.

Disposal and recycling information

This symbol (with or without a solid bar) on the device, batteries (if included), and/or the packaging, indicates that the device and its electrical accessories (for example, a headset, adapter, or cable) and batteries should not be disposed of as household garbage. These items should not be disposed of as unsorted municipal waste and should be taken to a certified collection point for recycling or proper disposal.

For more detailed information about device or battery recycling, contact your local city office, household waste disposal service, or retail store.

Disposal of the device and batteries (if included) is subject to WEEE Directive Recast (Directive 2012/19/EU) and Battery Directive (Directive 2006/66/EC). The purpose of separating WEEE and batteries from other waste is to minimize the potential environmental impacts and human health risk of any hazardous substances that may be present.

Reduction of hazardous substances

This device is compliant with the REACH Regulation [Regulation (EC) No 1907/2006] and RoHS Directive Recast (Directive 2011/65/EU). Batteries (if included) are compliant with the Battery Directive (Directive 2006/66/EC). For up-to-date information about REACH and RoHS compliance, please visit the web site http://consumer.huawei.com/certification.

Copyright © Huawei Technologies Co., Ltd. 2016. All rights reserved.

No part of this manual may be reproduced or transmitted in any form or by any means without prior written consent of Huawei Technologies Co., Ltd. and its affiliates ("Huawei").

The product described in this manual may include copyrighted software of Huawei and possible licensors. Customers shall not in any manner reproduce, distribute, modify, decompile, disassemble, decrypt, extract, reverse engineer, lease, assign, or sublicense the said software, unless such restrictions are prohibited by applicable laws or such actions are approved by respective copyright holders.

Trademarks and Permissions

, , and are trademarks or registered trademarks of Huawei Technologies Co., Ltd.

Wi-Fi®, the Wi-Fi CERTIFIED logo, and the Wi-Fi logo are trademarks of Wi-Fi Alliance.

Other trademarks, product, service and company names mentioned may be the property of their respective owners.

Notice

Some features of the product and its accessories described herein rely on the software installed, capacities and settings of local network, and therefore may not be activated or may be limited by local network operators or network service providers.

Thus, the descriptions herein may not exactly match the product or its accessories which you purchase.

Huawei reserves the right to change or modify any information or specifications contained in this manual without prior notice and without any liability.

DISCLAIMER

ALL CONTENTS OF THIS MANUAL ARE PROVIDED "AS IS". EXCEPT AS REQUIRED BY APPLICABLE LAWS, NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE MADE IN RELATION TO THE ACCURACY, RELIABILITY OR CONTENTS OF THIS MANUAL.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL HUAWEI BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, OR LOSS OF PROFITS, BUSINESS, REVENUE, DATA, GOODWILL SAVINGS OR ANTICIPATED SAVINGS REGARDLESS OF WHETHER SUCH LOSSES ARE FORSEEABLE OR NOT.

THE MAXIMUM LIABILITY (THIS LIMITATION SHALL NOT APPLY TO LIABILITY FOR PERSONAL INJURY TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH A LIMITATION) OF HUAWEI ARISING FROM THE USE OF THE PRODUCT DESCRIBED IN THIS MANUAL SHALL BE LIMITED TO THE AMOUNT PAID BY CUSTOMERS FOR THE PURCHASE OF THIS PRODUCT.

Import and Export Regulations

Customers shall comply with all applicable export or import laws and regulations and be responsible to obtain all necessary governmental permits and licenses in order to export, re-export or import the product mentioned in this manual including the software and technical data therein.