Wonderful Communication, Mobile Life.

Welcome to HUAWEI D105 Wi-Fi/LAN Adapter

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User Guide

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Import and Export Regulations

Customers shall comply with all applicable export or import laws and regulations and will 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.

Safety Precautions

Read the safety precautions carefully to ensure the correct and safe use of your wireless device.

Do not switch on your device when the device use is prohibited or when the device use may cause interference or danger.

Do not use your device while driving.

Follow the rules or regulations in hospitals and health care facilities. Switch off your device near medical apparatus.

Switch off your device in an aircraft. The device may cause interference to control signals of the aircraft.

Switch off your device near high-precision electronic devices. The device may affect the performance of these devices.

Do not attempt to disassemble your device or its accessories. Only qualified personnel are allowed to service or repair the device.

Do not place your device or its accessories in containers with strong electromagnetic field.

Do not place magnetic storage media near your device. Radiation from the device may erase the information stored on them.

Do not put your device in a high-temperature place or use it in a place with flammable gas such as a gas station.

Keep your device and its accessories away from children. Do not allow children to use your device without guidance.

Use approved accessories only to avoid explosion.

Observe the laws or regulations on device use. Respect others' privacy and legal rights when using your device.

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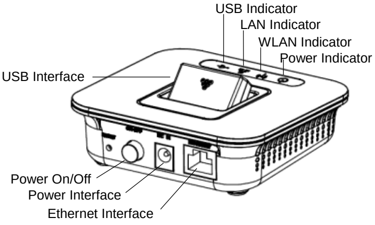
1 Quick Start

Note The supported functions and actual appearance are subject to your product purchased. The following pictures are displayed for illustration purpose only. For details of your product selection, consult your service provider.

Appearance



Indicator	Status
Power	Steady on and in red: The device is switched on successfully.
LAN	• Powered device connected to the associated port and the Ethernet interface is ready to work. • Blinking in yellow green: Data is being transmitted.
WLAN	• Steady on and in yellow green: The WLAN is enabled. • Blinking in yellow green: Data is being transmitted.
USB	Steady on and in yellow green: The USB interface is ready to work.

PC Configuration Requirements

The recommended PC configurations for using the device are as follows:

- CPU: Pentium 500 MHz or above
- Memory: 128 MB RAM or above
- Hard disk: 100 MB or above available space
- Operating System: Windows 2000, Windows XP, Windows Vista or Windows 7
- LCD resolution: 800*600 pixel or above, recommended 1024*768 pixel

- Interface: standard USB interface
- Internet Browser: Internet Explorer 6.0 or Internet Explorer 7.0, Firefox 1.5 or Firefox 2.0, Safari 3.0

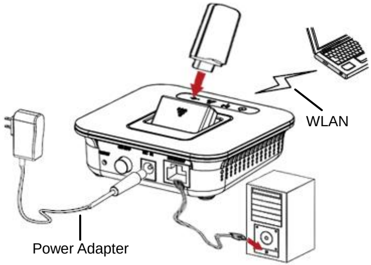
Installation

◆ Step 1: Connect with the data card through the USB interface.

Note Use the specified data card to connect with the device.

◆ Step 2: Connect to a PC through an Ethernet cable or WLAN.

- If the indicator of the Ethernet interface connecting with a network cable is on, the PC lineate connection is successful. The Ethernet cable cannot be longer than 100 meters (328 feet). To achieve better effect, use the shielded cable.
- Whether the PC wireless connection is successful, please check your PC connected through WLAN. For details, please see "Configuring Your Computer".
- If connect your device to one PC with the Ethernet cable and other PCs with WLAN simultaneously, you have constructed a LAN and can share the local resources.



◆ Step 3: Connect to the power adapter.

Warning

- Use a power adapter that is compatible with the device; otherwise, the device may be damaged.
- Please use the AC/DC power supply defined in the specifications of the charger. An improper power voltage can cause fire or malfunction of the charger.

◆ Step 4: Place the device.

Warning

- To prevent electrical devices from being interfered by wireless signals, place electrical devices one meter away from the device.
- Do not put the data card in the slot and please turn the USB interface connected with the data card upright when the device is running.

The device can be placed horizontally or vertically on a table. Place the device on a higher place or near the window, so it can receive stronger signals.

◆ Step 5: Power On/Off.

Press the **Power** key to switch on the device; press and hold the **Power** key to switch off the device.

Dial-up Access

By default, the device dials up to access the Internet as required. You can directly use the network services such as web browsing, and receiving or sending emails.

Note Make sure that the data card is connected to the device, or else you cannot use the Internet service and some management pages are unavailable.

Logging In to the Management Page

1 Start the Internet browser and enter the address http://192.168.1.1 in the address bar.

2 Enter the **Account** and **Password**, and then click **Apply**. The default value is **admin**.

Note To avoid the configuration conflict, only one user is allowed to log in to the management page at a time.

Accessing the Internet

1 Click **Basic Settings** > **Internet Settings**, choose **3.5G Client**.

Note

- If you are required to enter the PIN code, enter the correct one. If you fail to enter the correct PIN or PUK code, the network-related functions are unavailable.
- The SIM card is supplied by the service provider. For details, contact your service provider.
- When the **Save PIN Code** check box is selected, the **Auto validation** is enabled.
- If **Auto validation** is enabled, the PIN code is recorded and automatically validated after each restart.

2 If **PPP Connection** is **Manual**, click **Connect/ Disconnect** to connect to or disconnect from the network.

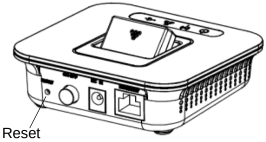
Note

If **PPP Connection** is **Auto** or **On Demand**, refresh the page to view the current network connection status.

3 Wait for several minutes. If you are notified that the connection is successful, you can start the browser and enter the website address to access the Internet.

Restoring the Factory Defaults

If you need to reconstruct the network or you forget the changes of some parameters, you can choose to restore factory defaults and reconfigure the device.



Reset: Press and hold it for 2 seconds to restore the factory defaults.

Note: After this operation, all configurations are restored to the defaults.

2 Using the Management Page

Management Page Overview

Management Page Overview

The following table shows the main operations in the management page.

Item	Description
Status	Displays the parameter configuration status of the device.
Basic Settings	Configures the LAN/WAN interface.
Wireless	Configures the wireless settings.
Security&NAT	Configures the firewall-related settings and other Network Address Translation services.
Administration	Configures the administration-related settings.
Advanced	Configures the routing and UPnP settings.
Logout	Log out of the management page.

Viewing Status Info

On the configuration page, you can view the current parameter configuration information and the network connection status.

Overview

1 Click **Status**.

2 Click **Overview** to view the device status, such as the summary information of System, 3.5G Status, WAN/LAN interface and wireless.

3 Click **Active DHCP Leases** to check the DHCP clients. Click **Update** button to refresh the page and update the CHCP clients, and **Back** button to return to the Overview page.

4 Click **Association List** to check stations which associated to this AP here.

Statistics

1 Click **Status**.

2 Click **Statistics** to view the summary for the device statistics, such as the memory size and WAN/LAN traffic statistics.

3 Click **Update** button to refresh the page and reset the statistics.

3 Configuring Your Computer

This takes the Windows XP operating system (OS) as an example to describe how to configure your computer. For other OSs, the configurations may be different and you need to configure them as required.

Wireless Configuration

The wireless configuration allows your PC to connect to the device through the wireless network. If you need only the Ethernet to connect your PC, you can skip this part.

Configuration Requirements

- To set up wireless network connection, your PC must be configured with the WLAN adapter that supports the IEEE 802.11 b/g protocol.
- If the encryption function is enabled, you need to ensure that all PCs connecting to the device use the same key as that of the device.
- For the use of WLAN adapter, refer to the WLAN adapter user guide provided by the manufacturer.
- For the encryption configurations, see "Security Setting > Security Policy".
- For SSID parameters configuration, see "Wireless Settings > Basic Settings > Wireless Network".

Configuring the Wireless Network

1. Choose **Start > Control Panel > Network Connections > Wireless Network Connection**.
2. Click **Show Wireless Networks** to display the wireless network connection list.
3. Select the network connection that the SSID is the same as that of the device, and then click **Connect**.
4. If the encryption parameter is set for the device, the **Wireless Network Connection** dialog box is displayed and requires the network key and confirmation. The value you entered must be the same as the **WPA Pre-Shared Key** or **Network Key** of the device.
5. Wait for a while after you enter the correct network key. The wireless connection icon displays in the

status area in the lower right corner of the screen. Then, your PC can automatically connect to the device.

Configuring the PC Network

The recommended configurations of the PC are as follows:

- Obtain an IP address automatically.
- Deselect Use a proxy server for your LAN.

Configuring the Network Connection

1 Choose My **Network Places > Properties > Local Area Connection**.

2 Right-click the **Local Area Connection** icon and select **Properties**.

3 In the **Local Area Connection Properties** dialog box, select **Internet Protocol (TCP/IP)** in the **This connection uses the following items** list box, and then click **Properties**.

4 In the **Internet Protocol (TCP/IP) Properties** dialog box, select **Obtain an IP address automatically** and **Obtain DNS server address automatically**, and then click **OK**.

Disabling Proxy Settings

1 Start the Internet browser, and then choose **Tools > Internet Options**.

2 Select the **Connections** tab, and then click **LAN Settings**.

3 In the **LAN Settings** dialog box, deselect **Use a proxy server for your LAN**.

4 Basic Settings

Click **Basic Settings**, you can configure network and internet settings.

Network Settings

Click **Network Settings** to go to LAN Interface configuration page; such as LAN IP and DHCP Server. All the settings will also apply o wireless LAN interface.

- **IP Address**: The default IP address of the device is 192.168.1.1.
- **Subnet Mask**: The combination of the subnet mask and IP address enables the flexible sub netting. By default, the subnet mask is 255.255.255.0.
- **DHCP Server**: It is used to assign IP addresses dynamically. If the DHCP server is **Enabled**, it can automatically assign IP addresses for PCs. It is recommended to select **Enabled** for the DHCP server.
- **DHCP Lease Time**: The DHCP server automatically assigns an IP address to each device connected to the network. When the leased time expires, the DHCP server checks whether the device is connected to the network. If the device is disconnected from the network, the server assigns the IP address to another device. Thus, the IP address is not wasted.
- **IP Pool Range**: It is used to define the IP address range that the host can use during the IP address assignment. For example, in the network segment 192.168.1.0/24, the default IP address of the device is 192.168.1.1. The host IP address can range from 192.168.1.2 to 192.168.1.254. The minimum range is a single IP address.

Note

- The **Start IP Address** must be smaller than or equal to the **End IP Address**.
- If the **DHCP Server** is **Enabled**, the configurations of **Start IP Address**, **End IP address**, and **DHCP Lease Time** are valid; otherwise, you cannot configure them.

IP Address Reservation

Click **Edit Address Reservation** to configure IP address for specific LAN client by the MAC address.

Please input the **MAC address** of the LAN client PC, and then specify the **IP address** that will be assigned to the client; click **Apply** after checking the **Enable** box.

Internet Settings

Click **Internet Settings** to go to WAN Interface configuration page for the device mode settings.

Gateway

Choose **Gateway** as the **Device Mode** and then configure the gateway releated settings in the corresponding fields.

- ◆ **DHCP Client**: Set DUT to get IP address dynamically from the local DHCP server.
  - **Use MAC Clone**: Click **Clone** button to use the local PC MAC as the device MAC address.
- ◆ **PPPoE Client**: Input the username and password according to the local PPPoE server to be permitted to connect to the server and get IP address dynamically from the PPPoE server.
  - **Connection Mode**: Select the PPPoE access mode.
  - **Keep Alive**: The device automatically connects to the Internet and does not disconnect when no data is transmitted.
  - **Connect on Demand**: The device automatically connects to the PPPoE server when data transmission exists. When the duration of no data transmission exceeds the maximum idle time, the device disconnects the connection.
  - **Manual Connect**: The device connects to the PPPoE server after you click Connect on the connection page.
- ◆ **Static Config**: Input the connection information according to the local server in these fields.

3.5G Client

Choose **3.5G Cilent** as the **Device Mode** and then configure the PPP 3.5G client related settings in the corresponding fields.

- ◆ **APN Service(APN)**: If the service provider provides the relevant parameters, select **Static** and enter the APN value. Otherwise, select **Dynamic** and the device automatically obtains the APN value.
- ◆ **Username/Password Service**: Select **Enable** and enter the username/password value if the internet service provider (ISP) provides the relevant parameters. Otherwise, select **Disable**. The user name and password is used to obtain the service authorization

provided by the ISP.

- **Service Number**: Input the dial-up number which is used to initiate the network call.
- **Connection Mode**: Select the dial-up access mode.
  - **Keep Alive**: The device automatically connects to the Internet and does not disconnect when no data is transmitted.
  - **Connect on Demand**: The device automatically connects to the Internet when data transmission exists. When the duration of no data transmission exceeds the maximum idle time, the device disconnects the Internet connection.
  - **Manual Connect**: The device connects to the Internet after you click Connect on the connection page. For details, see "Accessing the Internet".
- **PIN Code Service**: Click **PIN Code Config** button to go to the configuration page.
  - **PIN Code Operation**: Select **Disable/Modify** to disable or modify the PIN Code. Please input the new PIN Code and then confirm the PIN Code in the corresponding field if Modify is selected.
  - **PIN Code**: Input the effective PIN code to validate the configuration of the PIN Code.
  - **New PIN Code/ Reconfirm new PIN Code**: Input the new PIN code and input it again for confirmation.

Note

- Please be noted that the maximum number of times of PIN input will be 3, so PUK code will be needed to unlock the PIN code input.

5 Wireless Settings

Click **Wireless**, you can configure wireless-related settings.

Basic Settings

Click **Basic Settings** to configrue the basic wireless settings, such as **Network Name (SSID)** and **Channel**, etc., You also can disable/enable wireless function in this page.

Wireless Network

◆ **Enabling or Disabling the WLAN (Radio On/Off)**

- Click **RADIO OFF** to disable the wireless service; or **RADIO ON** to enable it.

◆ **Configuring the 802.11 Mode (Network Mode)**

Mode	Description
11b only	The device can only work in the low performance 802.11b standard network mode.
11g only	The device can only work in the low performance 802.11g standard network mode.
11b/g mixed mode	The device can work in 802.11b/g standard network mode at the same time.
11b/g/n mixed mode	The device can work in 802.11b/g/n standard network mode at the same time.

◆ **Network Name (SSID)**

- Entering a name (SSID) for your WLAN.

- The service set identifier (SSID) is used to identify a WLAN. A PC and the wireless device can perform normal data communication only when they have the same SSIDs. To ensure the WLAN security, do not use the default SSID. You can enter a character string as the SSID, such as MyHome.

◆ **Broadcast SSID**

- Enabling or Disabling the SSID Broadcast.

- **Enabled**: The device broadcasts the SSID of the WLAN and users can easily access the WLAN. In this case, unauthorized users can also try to access the WLAN because the SSID is broadcasted.

- **Disabled**: The device does not broadcast the SSID of the WLAN. Before accessing the WLAN, a user must obtain the SSID of the WLAN. In this case, the WLAN security is improved.

Note

- For the convenience of users accessing the WLAN, you can select **Enabled** for SSID Broadcast when you configure the WLAN setting. After the setting, you can select **Disabled** to improve the WLAN security.

◆ Selecting a WLAN Channel

- **Channel**: It refers to the channel that the device works with. If you do not know which channel to select, select **Auto Select** and the device can automatically search for the channel.

WDS

◆ WDS Mode

- **Disable**: Disable all WDS function.
- **Lazy Mode**: Turn on WDS function; DUT will learn automatically from WDS packet.
- **Bridge Mode**: Turn on WDS function, the peer WDS APs are listed in the "**AP MAC Address**" field below. In this mode, AP will not send beacon out and will not deal with probe request packets, therefore STA will not be possible to connect with it.
- **Repeater Mode**: Turn on WDS function, the peer WDS APs are listed in the "**AP MAC Address**" field below.

◆ Phy Mode

- **CCK**: Modulation method used for 802.11b, g, n mode.
- **OFDM**: Modulation method used for 802.11g, 802.11b/g mixed mode.
- **HTMIX**: Modulation method used for 802.11b/g/n mixed mode.
- **GREENFIELD**: Modulation method used for 802.11/n mode.

◆ Encryption Mode

- **None**: Encryption service is disabled.
- **WEP**: Please configure the WEP encryption key in the **Wireless** > **Security Setting** section.
- **TKIP**: Input the WPA encryption key.
- **AES**: Input the WPA encryption key.

Note

- In the **WEP** mode, devices should keep the same security settings to make the WDS work.
- In the **TKIP/AES** mode, the key in the WDS key field should keep the same value to make the WDS work.

HT Physical Mode

This service is only available for 802.11b/g/n mixed mode.

◆ Operation Mode

- **Mixed Mode**: Downward compatible for 802.11b/g mode.
- **Green Field**: Only works for 802.11n mode.

◆ Channel Bandwidth

- **20**: Only the availble channel can be used.
- **20/40**: More channels can be selected for use if the bandwidth reaches 40.

◆ Extension Channel

- Only availabe if **20/40** is selected in the **Channel Bandwidth** option.
- Select from the drop-down list the other channel for use if the bandwidth the device monitors is 40.

Security Settings

Click **Security Settings** to set up the wireless security and encryption to prevent from unauthorized access and monitoring.

Security Policy

To access the WLAN, you must set the wireless security key on your PC to be the same as that of the wireless device. A security key can protect your WLAN from illegal data attacking. The security key of your wireless device must be consistent with that of the PC.

◆ Disabled

- The wireless security service is disabled.

◆ OPEN

- Open system authentication. A user accessing the WLAN can only use WEP as the Encryption Type.

◆ **SHARED**

- Shared key authentication. It can only use WEP. The user accessing the WLAN must use the WEP to authenticate.

◆ **WEP**

- Wireless Equivalent Privacy (WEP) is a 64-bit or 128-bit data encryption method. The 128-bit WEP encryption provides higher security level.
- **WEP Key 1~4** : You can enter 5 ASCII characters or 10-character hexadecimal numeral to form a 64-bit key. You can also enter 13 ASCII characters or 26-character hexadecimal numeral to form a 128-bit key.
- **Default Key**: Select from the drop-down list the WEP key which will be in use.

◆ **WPA-PSK/WPA2-PSK**

- **WPA-PSK**: It is a 256-bit data encryption method that can automatically change the key.
- **WPA2-PSK**: It is a more secure version of WPA-PSK and it supports the IEEE 802.11i standard.
- **WPA Algorithm**: TKIP, AES, TKIP+AES.
- **WPA Pre-Shared Key (Pass Phrase)**: You can enter a 64-character hexadecimal value or 8-63-character ASCII value as the key. The ASCII value contains all characters that can be entered through the PC keyboard, and the hexadecimal value contains numbers of 0-9 and characters of A-F. For example, you can enter the ASCII value of 1234abcde as the key.
- **Key Renewal Interval**: It is used to set how long a network key is dynamically changed. By default, it is 3600.

Access Policy

Also known as **WLAN MAC Filter** function. You can control and manage the clients accessing the WLAN, and improve the WLAN security performance.

◆ **Policy**

- The following table shows the Policy type:

Policy	Description
Disable	The MAC address filter function is disabled.
Allow	The clients with addresses in the **MAC Addresses** list are allowed to connect with the device through the WLAN.
Reject	The clients with addresses in the **MAC Addresses** list are not allowed to connect with the device through the WLAN.

- ◆ **Add a station MAC**
- Enter MAC addresses in the list. The device can perform the access control over the clients whose MAC addresses are in the list.

Advanced Settings

Click **Advanced Settings** to make detailed settings for the Wireless. Advanced Setup includes items that are not available from the **Basic Settings** page, such as Beacon Interval, Control Tx Rates and Basic Data Rates.

- ◆ **BG Protection Mode**
- Default value is **Auto**. You can select the other options including **On** and **Off**. The BG protection technology is CTS-To-Self. It will try to reserve the throughput for 11g clients from 11b clients connecting to the device as AP mode.
- ◆ **Beacon Interval**
- Beacons are the packets sending by Access point to synchronize the wireless network. The beacon interval is the time interval between beacons sending by this unit in AP or AP+WDS mode. The default and recommended beacon interval is 100 milliseconds.
- ◆ **Data Beacon Rate (DTIM)**
- This is the Delivery Traffic Indication Map. It is used to alert the clients that multicast and broadcast packets buffered at the AP will be transmitted immediately after the transmission of this beacon frame. You can change the value from 1 to 255. The AP will check the buffered data according to this value. For example, selecting “1” means to check the buffered data at every beacon.
- ◆ **Fragment Threshold**
- The fragmentation threshold determines the size at which packets are fragmented (sent as several pieces instead of as one block). Use a low setting in areas where communication is poor or where there is a great deal of radio interference. This function will help you to improve the network performance.
- ◆ **RTS Threshold**
- The RTS threshold determines the packet size at which the radio issues a request to send (RTS) before sending the packet. A low RTS Threshold setting can be useful in areas where many client devices are associating with the device, or in areas where the clients are far apart and can detect only the device and not each other. You can enter a setting ranging from 0 to 2347 bytes.
- ◆ **TX Power**
- The default TX power is 100%. In case of shortening the

distance and the coverage of the wireless network, input a smaller value to reduce the radio transmission power. For example, input 80 to apply 80% Tx power.

◆ **Country Code**

- It is used to identify the country or district. Different countries or districts have different standards on channel usage. Choose **None** to make maximum number of channel available for use

- Channel selection must be limited for devices marketed in the US/Canada to channel 1 ~ 11.

- Country code selection feature must be disabled (firmware) for devices marketed to the US/Canada

Station List

Click **Station List** to monitor stations which associated to this AP.

6 Security & NAT

Click **Security & NAT** to configure firewall and NAT-releated settings.

Firewall Settings

Click **Firewall Settings** to configure firewall related functions.

◆ **SPI Firewall**

- By default, SPI Firewall is **Enabled**. Choose **Disable** and click **Apply** to disable the firewall function; but please be noted that the firewall protection will be lost, and any packet inspections and filtering features won't take effect.

◆ **Ping from WAN Filter**

- By default, it is **Enabled**. Choose **Disable** and click **Apply** to enable the ping from WAN.

MAC/IP/Port Filtering

Click **MAC/IP/Port Filtering** to set up filtering fules for protection against virus, worm and malicious activity on the Internet.

1 Choose **Always** to activate the configuration of filtering services. The default value is **Never** and no filering rules can be added in this page.

2 Enter the following values as required:

- **Source MAC Address**: To specify the MAC address from which to deny data transmission.
- **Destination/Source IP Address**: To specify IP address to deny data transmission.
- **Protocol**: Here provides three default policies for security levels for you to choose.
- **Dest/Source Port Range**: The port range is from 0 to 65535. Please key in the start point and end point for the Filtering.

3 Click **Apply** to create the filtering rule; or **Cancel** to give up the previous settings; or **Delete Selected** after selecting specific entry to delete the filtering rule.

Port Forwarding

Click **Port Forwarding** to configure the virtual serve to enable external computers to access WWW, FTP, or other services provided by the LAN.

1 Choose **Enable** from the drop-down to activate the configuration of the virtual server. This value is **Disable** by default.

2 Select from the pre-defined services list for the virtual server. Otherwise please select the **Protocol** the user-defined services will use; and then input the start/end port value in the **Port Range** field.

3 Input the **Internal IP Address** of the LAN client PC that wil provide the virtual server service.

4 Click **Add** to create the virtual server; or **Cancel** to give up the previous settings; or **Delete Selected** after selecting specific entry to delete the virtual server.

DMZ

Click **DMZ** to configure DMZ IP address.

If your PC cannot run network applications through the device, you can set the computer to access the Internet unlimitedly by configuring the IP address of the computer in the demilitarized zone (DMZ).

However, the DMZ computer is not protected by the firewall. It is vulnerable to attack and may also put other computers in the home network at risk.

1 Select **Enable/Disable** for DMZ Status to enable or disable the DMZ service.

2 Enter the local IP address of the computer that is specified as a DMZ host.

3 Click **Apply** button to confirm the setting; or **Cancel** to give up the previous settings.

7 Administration

Click **Administration** to configure administration-related functions for the device.

Management

Click **Management** to configure adminstration settings, such as Account modification and Remote Access Management.

Administrator Settings

1 Modify the **Account** name and **Password** if necessary.

2 Enter the new password again in the **Re-enter Password** field.

3 Click **Apply** to save the configuration; or **Cancel** to give up the previous settings.

Remote Management

1 Select **Enable/Disable** to enable or disable the HTTP Remote Access service.

2 Keep the default value or enter the **Remote Port** if the service is enabled.

3 Click **Apply** to save the configuration; or **Cancel** to give up the previous settings.

Log

Click **Log** to configure system log inforamtion service.

1 Select **Enable/Disable** to enable or disable the system log information service.

2 Click **Apply** to save the configuration.

3 If Log service is enabled, you can click **Refresh** button to update the log information; or **Clear** button to clear the log information; or **Save** button to save

the log information to the local PC; or **Debug** button to save the debug information to the local PC.

System

Click **System** to configure system configuration services, such as firmware upgrade, restore factory default and reboot system.

Firmware Upgrade

1 Click **Browse** button to locate the new firmware for upgrade.

2 Click **Upgrade** button to start the process.

3 Please wait until the upgrade completes and log in again.

Restore Factory Defaults

1 Click **Factory Defaults** button to restore the device to default values.

2 Please wait until the process completes and log in again.

Reboot System

1 Click **Reboot** button to start the process.

2 Please wait until the process completes and log in again.

System Language

Choose from the drop-down list the language for the GUI page.

8 Advance

Click **Advance** to configue Advanced Routing and UPnP function.

Advanced Routing

Click **Advanced Routing** to configure routing table. A Static IP Routing is a manually defined path, which determines the data transmitting route. If your local network is composed of multiple subnets, you may want to specify a routing path to the routing table.

1 Enter the following values as required:

- **Destination**: Display the IP address that the data packets are to be sent.
- **Host/Net**: Choose **Host** to specify the host IP in the **Destination** field that the data packets are to be sent; otherwise choose **Net** to specify network IP in the Destination field that the data packets are to be sent and then also input the **Subnet Mask** value.
- **Subnet Mask**: Input the value in this field if **Net** is chosen in the **Host/Net** field.
- **Gateway**: Specify the gateway information that the transmitting data will pass through.
- **Interface**: Specify the interface information that the transmitting data will pass through.

2 Click **Apply** to confirm to add the static routing; or **Cancel** to give up the previous settings; or **Delete Selected** after selecting specific entry to delete the static routing.

UPnP

The **Universal Plug and Play (UPnP)** service allows other network users to control your device’s network features to realize the intelligent interconnection.

1 Select **Enabled/Disabled** for UPnP Status to enable or disable the UPnP service.

2 Click **Apply**.

9 Troubleshooting

What to do if a PC in the LAN cannot access the Internet?

1 If the Power indicator is off, you need to check whether the power adapter is normally connected

2 If the USB indicator if off, you need to check whether the data card is connected normally.

3 If the signal strength indicator in the page is off, you need to check whether the area is covered by the network.

4 If the area is covered by the network, you need to check the indicator of the Ethernet interface.

5 If the indicator of the Ethernet interface blinks, the corresponding Ethernet interface is normally connected. If the indicator is off, you need to check and ensure that the related Ethernet connection is normal.

6 You must configure the correct PPP user name and PPP password when you access the Internet through the device. Check whether they are correct, and see "3.5G Client " for details.

7 If the DHCP service is disabled and the PC obtains the IP address dynamically, the PC also cannot access the Internet. You can change the mode to manually assign an IP address. See "Configuring the Network Connection".

8 Check whether the driver of the network adapter is correctly installed.

9 If the preceding methods cannot solve the problem, please consult your service provider.

What to do if a PC in the WLAN cannot access the WLAN?

1 If interferences or shields near the device exist, you can adjust the position of the device. When the signal strength is strong, you can move to the next step.

2 Check and record the following data on the network adapter of your PC: SSID, Encryption type, and key.

3 Check and record the following data on the device: SSID, Encryption type, and key.

4 Compare the recorded data, the SSID on the network adapter should be ANY or be the same as that on the device. The WEP type and key on the network adapter and device should be the same. Otherwise, you need to change the data on the network adapter.

What to do if bridging between two devices is unsuccessful?

1 Make sure that the two devices work on the same channel. For details, see "Selecting a WLAN Channel".

2 Make sure that the MAC address of one device is in the peer MAC address list of the other device. For details, see "WDS".

When the signal strength is normal, what to do if the downloading rate is low?

In this case, you need to set the value in the registry as follows:

1 Choose **Start** > **Run**.

2 Enter **regedit** in the **Open** text box and then click **OK**.

3 Select parameters in the following directory: **\HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip**.

4 Choose **Edit** > **New** > **DWORD Value**.

5 Rename **New Value #1** to **TcpWindowSize**.

6 Right-click **TcpWindowSize** and then select **Modify**.

7 Select **Decimal** and enter **65535** in the **Value data** text box, and then click **OK**.

8 For the **DWORD** Value of **DefaultRcvWindow**, do the same operations as that of **TcpWindowSize**.

10 Abbreviations

3G	The Third Generation
AP	Access Point
APN	Access Point Name
CDMA	Code Division Mutiple Access
DHCP	Dynamic Host Configuration Protocol
DNS	Domain Name Server
EDGE	Enhanced Data rates for GSM Evolution
GSM	Global System for Mobile communications
GPRS	General Packet Radio Service
HSPA	High Speed Packet Access
HSDPA	High Speed Downlink Packet Access
IP	Internet Protocol
LAN	Local Area Network
LED	Light Emitting Diode
NAT	Network Address Translation
POTS	Plain Old Telephone Service
VoIP	Voice over IP
UMTS	Universal Mobile Telecommunications System

11 Warnings and Precautions

Electronic Device

- Turn off your device near high-precision electronic devices. The wireless device may affect the performance of these devices.
- Such devices include hearing aids, pacemakers, fire alarm systems, automatic gates, and other automatic-control devices can be affected. If you are using an electronic medical device, consult the device manufacturer to confirm whether the radio wave affects the operation of this device.

Notice

The information in this manual is subject to change without notice. Every effort has been made in the preparation of this manual to ensure accuracy of the contents, but all statements, information, and recommendations in this manual do not constitute the warranty of any kind, expressed or implied.

CE statements:

Please observe the national local regulations in the location where product is to be used. This product may be restricted for use in some or all countries of European Union.

Warning: This is a radio frequency device! The spectrum usage is regulated on a country base, by the spectrum authorities. National restrictions may apply! Please read the user manual carefully and check the local regulation before importing this product to any particular country.

Warning: When carrying or using the wireless device, keep the antenna at least 25 centimeters away from your body, to avoid negative impact on your health caused by radio frequency leakage.

Warning: Do not go closer that 20 cm to the device while in operation.

Warning: this product is restricted to indoor use only! The User must observe local regulations before putting the WLAN Adaptor into use.

Hereby, Huawei Technologies Co., Ltd., declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

CE0678 (!)

The declaration of conformity may be consulted at www.huaweidevice.com/certification.

Federal Communications Commission (FCC) Statement

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

- this device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications made to this equipment not expressly approved by Huawei Technologies Co., Ltd. may void the FCC authorization to operate this equipment.

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.

RF Exposure Information

This device meets the government's requirements for exposure to radio waves.

This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation.

Hospital

Pay attention to the following points in hospitals or health care facilities:

- Do not take your wireless device into the operating room (OR), intensive care unit (ICU), or coronary care unit

(CCU).

- Do not use your wireless device at places for medical treatment where wireless device use is prohibited.

Traffic Safety

- Please observe local laws and regulations on wireless device use. Do not use your wireless device while driving to avoid traffic accident.
- Secure the wireless device on its holder. Do not place the wireless device on the seat or other places where it can get loose in a sudden stop or collision.
- Use the wireless device after the vehicle stops at a safe place.
- Do not place the wireless device over the air bag or in the air bag outspread area. Otherwise, the wireless device may hurt you owing to the strong force when the air bag inflates.
- Observe the rules and regulations of airline companies. When boarding or approaching a plane, turn off the wireless device. In areas where wireless device use is prohibited, turn off the wireless device. Otherwise, the radio signal of the wireless device may disturb the plane control signals. Turn off your wireless device before boarding an aircraft.

Storage Environment

- Do not place magnetic storage media such as magnetic cards and floppy disks near the wireless device. Radiation from the wireless device may erase the information stored on them.
- Do not put your wireless device, and other accessories in containers with strong magnetic field, such as an induction cooker and a microwave oven. Otherwise, circuit failure, fire, or explosion may occur.
- Do not leave your wireless device, and other accessories in a very hot or cold place. Otherwise, malfunction of the products, fire, or explosion may occur.
- Do not place sharp metal objects such as pins near the earpiece. The earpiece may attract these objects and hurt you when you are using the wireless device.
- Do not subject your wireless device, and other accessories to serious collision or shock. Otherwise, wireless device malfunction, overheat, fire, or explosion may occur.
- Do not put your wireless device in the back pocket of your trousers or skirt to avoid wireless device damage while seated.

Children Safety

- Put your wireless device, and other accessories in places beyond the reach of children. Do not allow children to use the wireless device, or other accessories without guidance.

- Do not allow children to touch the small fittings. Otherwise, suffocation or gullet jam can be caused if children swallow the small fittings.

Operation Environment

- The wireless device, and other accessories are not water-resistant. Keep them dry. Protect the wireless device, or other accessories from water or vapor. Do not touch the wireless device with a wet hand. Otherwise, short-circuit and malfunction of the product or electric shock may occur.
- Do not use the wireless device in dusty, damp and dirty places or places with magnetic field. Otherwise, malfunction of the circuit may occur.
- When carrying or using the wireless device, keep the wireless device at least 20 centimeters away from your body, to avoid negative impact on your health caused by radio frequency leakage.
- On a thunder stormy day, do not use your wireless device outdoors or when it is being charged.
- The wireless device may interfere with nearby TV sets, radios and PCs.
- In accordance with international standards for radio frequency and radiation, use wireless device accessories approved by the manufacturer only.
- The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20cm from all persons.

Cleaning and Maintenance

- Before you clean or maintain the wireless device, turn off it and disconnect it from the power adapter. Otherwise, electric shock or short-circuit may occur.
- Do not use any chemical detergent, powder, or other chemical agent (such as alcohol and benzene) to clean the wireless device and the other accessories. Otherwise, part damage or a fire can be caused. You can clean the wireless device and the other accessories with a piece of soft antistatic cloth that is a little wet.
- Do not scratch the shell of the wireless device. Otherwise, the shed coating may cause skin allergy. Once it happens, stop using the wireless device at once and go to see a doctor.
- If the wireless device or any of its fittings does not work, turn to the local authorize service center for help.