

LINKHUB

LTE cat7 Home Station

User Manual

HH70VH

Table of contents

Safety and use	1
1. Overview	5
1.1 System requirements	5
1.2 Device description.....	5
2. Getting started with your device	7
2.1 Insert nano-SIM	7
2.2 Connect the power adapter	8
2.3 Optional: Installing the external antennae.....	9
2.4 How to connect in Wi-Fi mode	10
3. Configuring your Cat7 Router.....	12
3.1 Configure your Cat7 Router via application.....	12
3.2 Configure your Cat7 Router via Web page	12
4. Services	15
4.1 SMS.....	15
4.2 Call logs.....	16
4.3 Share.....	16
5. Settings.....	19
5.1 Dial-up.....	19
5.2 WAN	20
5.3 Wi-Fi.....	21
5.4 Security	23
5.5 NAT.....	24
5.6 QoS	25
5.7 LAN	25
6. System.....	25
6.1 Device info	25
6.2 Reboot and reset	25
6.3 Update	26
6.4 Device management	26
7. Warranty	27
8. Q&A.....	28

Safety and use

We recommend that you read this chapter carefully before using your device. The manufacturer disclaims any liability for damage, which may result as a consequence of improper use or use contrary to the instructions contained herein.

CONDITIONS OF USE:

Switch the device off before boarding an aircraft.

Switch the device off when you are in health care facilities, except in designated areas. As with many other types of equipment now in regular use, devices can interfere with other electrical or electronic devices, or equipment using radio frequency.

Switch the device off when you are near gas or flammable liquids. Strictly obey all signs and instructions posted in a fuel depot, petrol station, or chemical plant, or in any potentially explosive atmosphere.

When this device is switched on, it should be kept at least 20 cm from the body.

When the device is switched on, it should be kept at least 15 cm from any medical device such as a pacemaker, a hearing aid, or an insulin pump, etc.

Do not let children use the device and/or play with the device and accessories without supervision.

If your device has a removable cover, note that your device may contain substances that could create an allergic reaction.

If your device is a unibody device, the back cover is not removable. If you disassemble your device the warranty will not apply.

Always handle your device with care and keep it in a clean and dust-free place.

Do not allow your device to be exposed to adverse weather or environmental conditions (moisture, humidity, rain, infiltration of liquids, dust, sea air, etc.). The manufacturer's recommended operating temperature range is -20°C (-4°F) to +50°C (122°F).

Do not open, dismantle, or attempt to repair your device yourself.

Do not drop, throw, or bend your device.

Do not paint it.

Use only adapters and accessories which are recommended by TCL Communication Ltd. and its affiliates and are compatible with your device model. TCL Communication Ltd. and its affiliates disclaim any liability for damage caused by the use of other adapters.



This symbol on your device and the accessories means that these products must be taken to collection points at the end of their life:

- Municipal waste disposal centres with specific bins for these items of equipment;
- Collection bins at points of sale.

They will then be recycled, preventing substances being disposed of in the environment, so that their components can be reused.

In European Union countries:

These collection points are accessible free of charge.

All products with this sign must be brought to these collection points.

In non-European Union jurisdictions:

Items of equipment with this symbol are not to be thrown into ordinary bins if your jurisdiction or your region has suitable recycling and collection facilities; instead they are to be taken to collection points for them to be recycled.

Adapters:

Mains powered adapters will operate within the temperature range of: 0°C (32°F) to 40°C (104°F).

The adapters designed for your device meet the standard for safety of information technology equipment and office equipment use. They are also compliant with the ecodesign directive 2009/125/EC.

Due to different applicable electrical specifications, an adapter you purchased in one jurisdiction may not work in another jurisdiction. They should be used for this purpose only.

Radio waves

Proof of compliance with international standards (ICNIRP) or with European Directive 2014/53/EU (RED) is required of all device models before they can be put on the market. The protection of the health and safety for the user and any other person is an essential requirement of these standards or this directive.

THIS DEVICE MEETS INTERNATIONAL GUIDELINES FOR EXPOSURE TO RADIO WAVES.

Your device is a radio transmitter and receiver. It is designed not to exceed the limits for exposure to radio waves (radio frequency electromagnetic fields) recommended by international guidelines. The guidelines were developed by an independent scientific organisation (ICNIRP) and include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The World Health Organization has stated that present scientific information does not indicate the need for any special precautions for the use of mobile devices. They recommend that if you are interested in further reducing your exposure then you can easily do so by limiting your usage or keep the device away from the head and body.

Additional information about electromagnetic fields and public health are available on the following site: <http://www.who.int/peh-emf>.

Your device is equipped with a built-in antenna. For optimal operation, you should avoid touching it or degrading it.

Licences



The Wi-Fi Logo is a certification mark of the Wi-Fi Alliance

This equipment may be operated in all European countries. The 5150-5350 MHz band is restricted to indoor use only.

BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	NO	IS
LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	LI	CH

We hereby point out that the end user warranty for infringement IPR is solely limited to the EU/EEA/Switzerland.

If and to the extent that the Product is exported, taken with, or used by end customer or end user outside the EU/EEA/Switzerland any responsibility, warranty or indemnification of manufacturer and its suppliers in regard to the Product expires (including any indemnification in regard to infringement IPR).

General information

Internet address: www.alcatel-mobile.com

Hot Line Number: see "SERVICES" leaflet or go to our website.

Manufacturer: TCL Communication Ltd.

Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong.

This radio equipment operates with the following frequency bands and maximum radio-frequency power:

GSM900: 32.5dBm

GSM850: 32.5dBm

GSM1800: 29.5dBm

GSM 1900: 29.5dBm

UMTS 2100/1800/900 : 23dBm

LTE 2100/1800/2600/900/800 : 23dBm

LTE TDD 38/40 : 23dBm

802.11a/b/g/n/ac: 2.4GHz<20dBm , 5GHz<20dBm

Regulatory information

Hereby, TCL Communication Ltd. declares that the radio equipment type Alcatel HH70VH is in compliance with Directive 2014/53/EU.

Additional information

The full text of the EU declaration of conformity is available at the following internet address: http://www.alcatel-mobile.com/EU_doc

The description of accessories and components, including software, which allow the radio equipment to operate as intended, can be obtained in the full text of the EU declaration of conformity at the following internet address: http://www.alcatel-mobile.com/EU_doc

Disclaimer

There may be certain differences between the user manual description and the device's operation, depending on the software release of your device or specific operator services.

TCL Communication Ltd. shall not be held legally responsible for such differences, if any, nor for their potential consequences. This device may contain materials, including applications and software in executable or source code form, which is submitted by third parties for inclusion in this device ("Third Party Materials"). All Third Party Materials in this device are provided "as is", without warranty of any kind, whether express or implied. The purchaser undertakes that TCL Communication Ltd. has complied with all quality obligations incumbent upon it as a manufacturer of mobile devices and devices in complying with Intellectual Property rights. TCL Communication Ltd. will at no stage be responsible for the inability or failure of the Third Party Materials to operate on this device or in interaction with any other device. To the maximum extent permitted by law, TCL Communication Ltd. disclaims all liability for any claims, demands, suits or actions, and more specifically – but not limited to – tort law actions, under any theory of liability, arising out of the use, by whatever means, or attempts to use, such Third Party Materials. Moreover, the present Third Party Materials, which are provided free of charge by TCL Communication Ltd., may be subject to paid updates and upgrades in the future; TCL Communication Ltd. waives any responsibility regarding such additional costs, which shall be borne exclusively

by the purchaser. TCL Communication Ltd. shall not be held responsible for the lack of availability of any application, as its availability depends on the country and the operator of the purchaser. TCL Communication Ltd. reserves the right at any time to add or remove Third Party Materials from its devices without prior notice; in no event shall TCL Communication Ltd. be held responsible by the purchaser for any consequences of such removal.

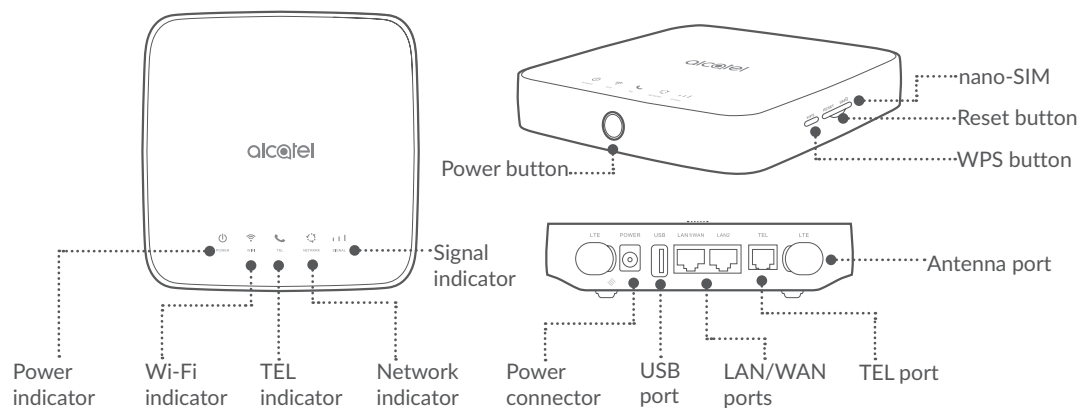
1. Overview

This device allows you to share a secure mobile broadband internet connection using Wi-Fi or an ethernet cable. Wi-Fi enabled devices (PCs, smartphones, tablets, gaming devices, etc.) can access the internet by connecting to the Cat7 Router. To get the best signal, the ideal place for your device will be near a window. Try a few different locations until you find the one with the best signal.

1.1 System requirements

This Cat7 Router is compatible with Wi-Fi devices which support 2.4GHz (802.11 b/g/n) or 5GHz (802.11 a/n/c) and have a web browser.

1.2 Device description



Power button

- Once connected to a power outlet, your Cat7 Router will automatically power on.
- To power off your device, press and hold the power button for 3 seconds.
- To power on your device, press and hold the power button for 1 second.

WPS button

To enable WPS, press and hold the WPS button for 3 seconds. The Wi-Fi LED will start to flash blue. Then press the WPS button on the device you wish to connect to within two minutes. Your Cat7 Router will automatically assign your network settings to the device you wish to connect to.

Reset button




Use a paperclip or blunt pin to gently press and hold the reset button for 3 seconds. All LEDs will turn on, then off, and finally turn on again once the reset is completed. You can also reset the device via the Web-UI.



USB port

Connect a USB storage device, or USB printer.

- This port cannot be connected to a USB host, only to devices such as computers.
- Supports USB 1.0 / 2.0 storage.
- If the power supply requirements exceed USB standards, it may not function properly.

LED description

Icon	Description
 POWER	<ul style="list-style-type: none">• Solid blue: The device is powered on.• Off: The device is powered off.
 WIFI	<ul style="list-style-type: none">• Solid blue: Wi-Fi is enabled.• Flashing blue: WPS connection is available.• Off: Wi-Fi is disabled.
 TEL	<ul style="list-style-type: none">• Flashing blue: Phone is ringing.• Solid blue: Phone is in call.• Off: Phone is not in use.

Icon	Description
 NETWORK	<ul style="list-style-type: none"> • Solid yellow: Connected to 2G. • Solid green: Connected to 3G. • Solid blue: Connected to 4G/Ethernet. • Solid red: No nano-SIM available or the device is not registered to the network. • Flashing yellow: Registered to 2G. • Flashing green: Registered to 3G. • Flashing blue: Registered to 4G.
 SIGNAL	<ul style="list-style-type: none"> • Solid blue: Signal strength ranges from 1-3 bars, with 3 being the strongest. • Off: No service / No signal / No nano-SIM / Invalid nano-SIM.

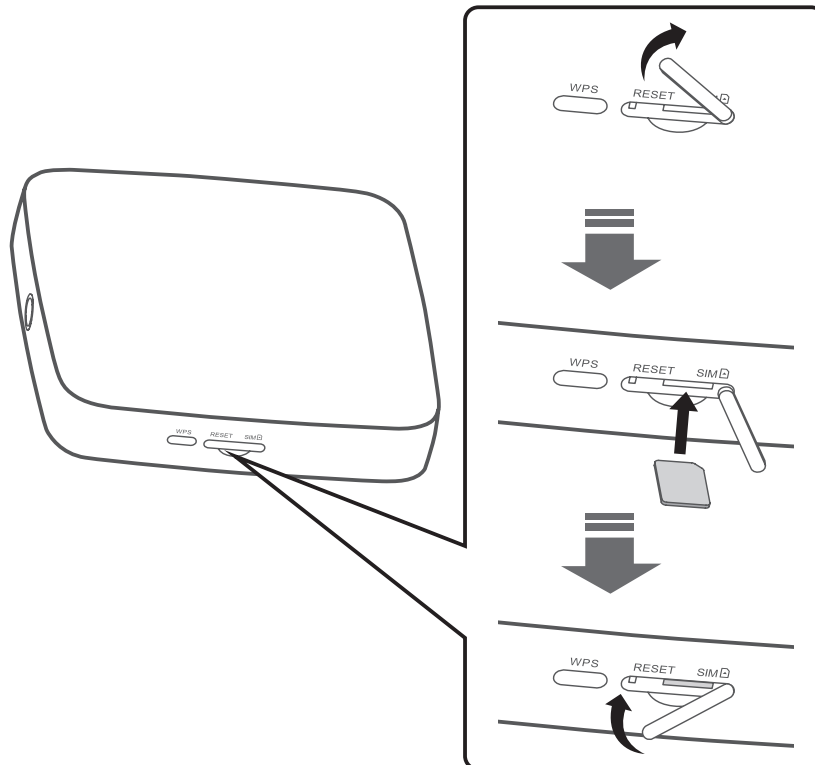
2. Getting started with your device

2.1 Insert nano-SIM

Follow the 3 steps in the illustration below.

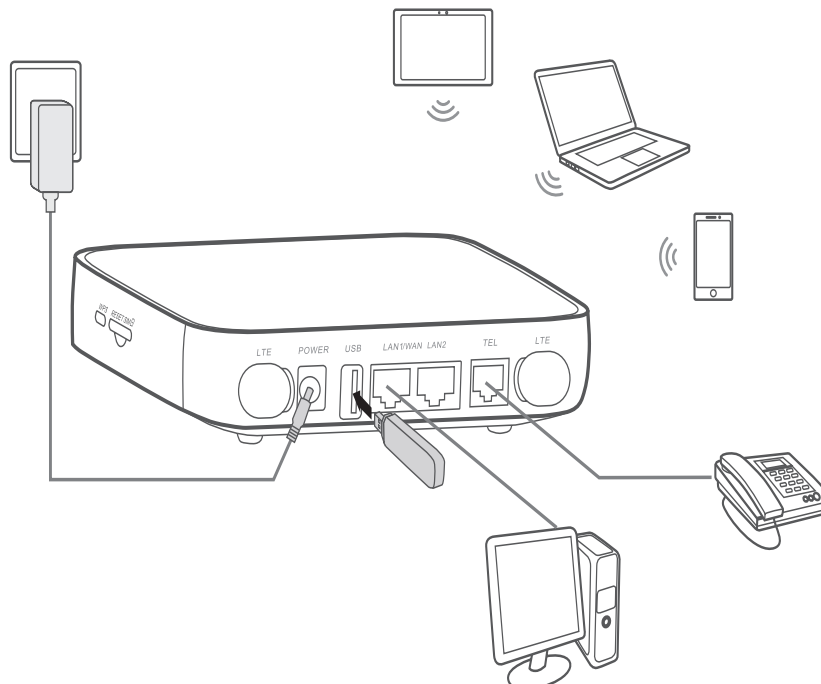
- 1) Open the nano-SIM slot cover.
- 2) Insert the nano-SIM into the SIM slot.
- 3) Close the nano-SIM slot cover.

Do not remove the nano-SIM when your Cat7 Router is in use. Doing so will affect the performance of your device, and data stored on the nano-SIM may be lost.



2.2 Connect the power adapter

Follow the illustration below to plug in the power adapter. Once connected to a power outlet, your Cat7 Router will automatically power on.



To prevent interference caused by radio signals, place the Cat7 Router at least one metre away from phones and other electrical devices.

2.3 Optional: Installing the external antennae

In areas with poor signal reception, connect external antennae to the two ports labelled 'LTE' to improve signal reception.

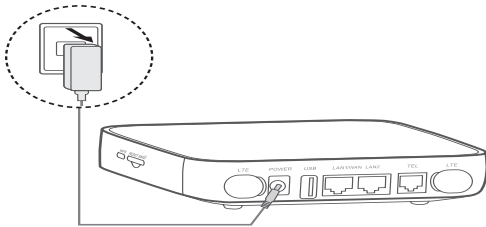
Warning:

Before installing the external antennae, ensure that your Cat7 Router is powered off and disconnected from the power outlet.

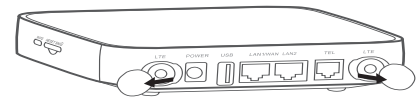
The external antennae must be installed by a qualified technician.

Use antennae supplied by device manufacturer only.

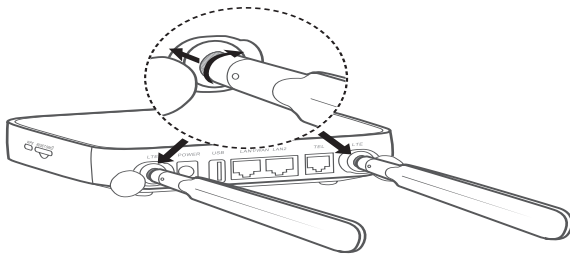
- ① Power off your Cat7 Router and disconnect it from the power outlet.



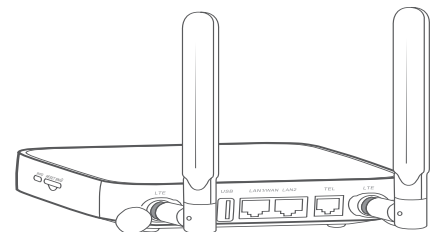
- ② Open the 'LTE' covers on both sides.



- ③ Screw external antenna fully into the antenna port.



- ④ Keep external antennae pointed upwards to get a better signal.



2.4 How to connect in Wi-Fi mode

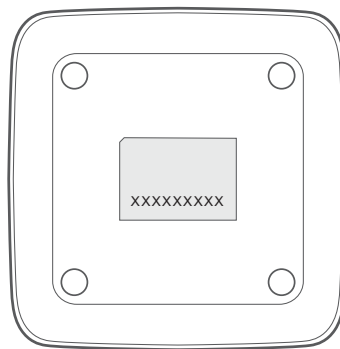
Step 1: Enabling Wi-Fi on your Cat7 Router.

When the Wi-Fi indicator is solid blue, Wi-Fi is enabled.

Step 2: Recording the SSID and Wi-Fi Key.

The default SSID and Wi-Fi key are printed on the device label, situated on the underside of your Cat7 Router.

To prevent unauthorised parties from accessing your Wi-Fi network, it is recommended that you change the SSID and Wi-Fi key from time to time. For more information, please refer to the User Guide which can be accessed via the Web User Interface.



Step 3: Setting up a Wi-Fi connection

- **Setting up a Wi-Fi connection manually:**

- 1) From your Wi-Fi enabled client, perform a scan for wireless networks.
- 2) Connect to the network name that matches the SSID found on the device label.
- 3) When prompted for a password, enter the Wi-Fi key found on the device label (this is case sensitive). Your client will notify you when it is connected.

- **Setting up a Wi-Fi connection through WPS:**

Your client must support WPS. There are 3 ways to set up a WPS connection.

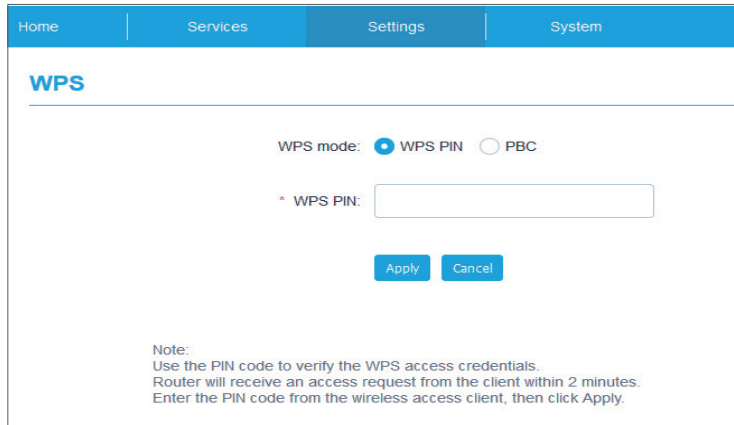
Option 1: WPS button

- 1) Ensure that Wi-Fi is enabled on the client and enable WPS.
- 2) Press and hold the WPS button for 3 seconds. The Wi-Fi LED will begin to flash blue.
- 3) Your device should then automatically connect.

Option 2: WPS key

- 1) Enable the WPS function on your smart device (only Android devices are supported) and note the WPS key.

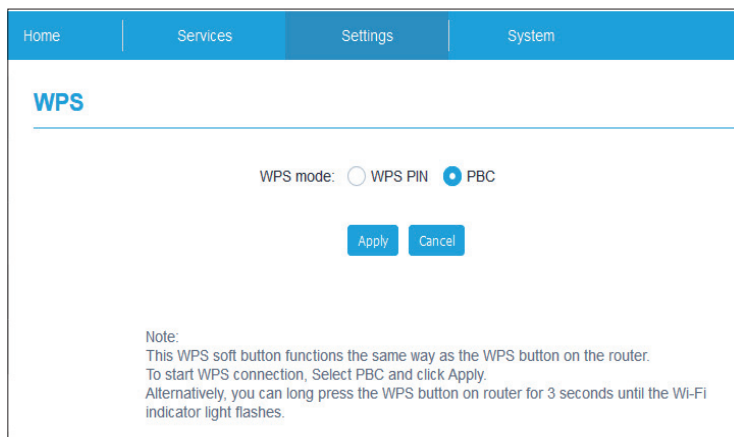
- 2) Open the WPS page on your Web User Interface (Navigate to Settings > Wi-Fi > WPS).
- 3) Enter the WPS key on the WEB User Interface and click **Apply**.
- 4) Your device should then connect automatically.



The screenshot shows the WPS configuration page in a web interface. The navigation bar at the top has four tabs: Home, Services, Settings (selected), and System. The page title is "WPS". Below the title, there are two radio buttons for "WPS mode": "WPS PIN" (selected) and "PBC". Below this is a text input field labeled "WPS PIN:". At the bottom of the form area are two buttons: "Apply" and "Cancel". A note at the bottom of the page reads: "Note: Use the PIN code to verify the WPS access credentials. Router will receive an access request from the client within 2 minutes. Enter the PIN code from the wireless access client, then click Apply."

Option 3: PBC

- 1) Open the WPS page on your Web User Interface (Go to **Settings > Wi-Fi > WPS**).
- 2) Click on **PBC**.
- 3) Click **Apply**. WPS is now enabled for 2 minutes.
- 4) Enable WPS on your client and it should automatically connect.



The screenshot shows the WPS configuration page in a web interface. The navigation bar at the top has four tabs: Home, Services, Settings (selected), and System. The page title is "WPS". Below the title, there are two radio buttons for "WPS mode": "WPS PIN" (unselected) and "PBC" (selected). Below this are two buttons: "Apply" and "Cancel". A note at the bottom of the page reads: "Note: This WPS soft button functions the same way as the WPS button on the router. To start WPS connection, Select PBC and click Apply. Alternatively, you can long press the WPS button on router for 3 seconds until the Wi-Fi indicator light flashes."

3. Configuring your Cat7 Router

There are two ways to configure your Cat7 Router.

- Link Hub app
- Web page

3.1 Configure your Cat7 Router via application

Download the free Alcatel Wi-Fi Link app to control your Cat7 Router.

- 1) Make sure your device is connected to the internet.
- 2) Scan the QR code. Alternatively, you can also search for “Alcatel WiFi Link” in the App Store or Google Play Store.
- 3) Download the Alcatel Wi-Fi Link app from App Store or Google Play store.
- 4) Click on Alcatel Wi-Fi Link app icon to log in to the management page.

You can find the default password on the label on the back of the device.



IOS | Android

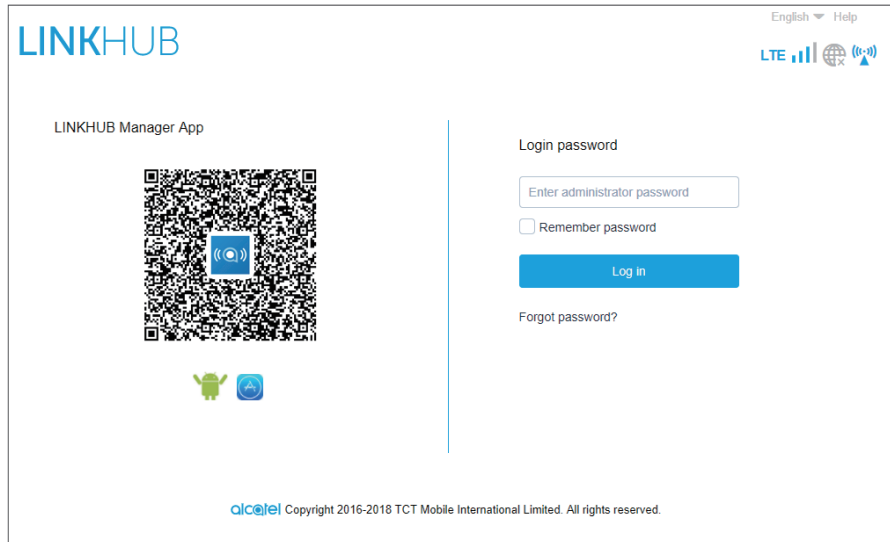
3.2 Configure your Cat7 Router via Web page

The Web User Interface is compatible with the following browsers:

- Mozilla Firefox
- Safari
- Internet Explorer 9.0 or later.
- Microsoft Edge
- Opera
- Google Chrome

3.2.1 How to log in to the Home page

- 1) Open your web browser.
- 2) Input <http://192.168.1.1> into the address bar and press enter. The Home page will then load, as shown in the image below.








- 3) Log in to change your Cat7 Wi-Fi device SSID and password, or change other basic settings.




You can find the default password on the label on the back of the device.

Note: You will be forced to change the default password for additional security.

3.2.2 Web UI status bar page

Status bar icons

Description	Icon displayed
Network technology	2G , 3G or 4G will be displayed, depending on the network available. No service will be displayed when there is no network available.
Signal indicator	 From no signal to excellent.
Connection status	 disconnected,  connected
SMS	 New message / Unread message(s) in inbox  SMS box is full.

Description	Icon displayed
Wi-Fi status	 Wi-Fi is enabled.  Wi-Fi is disabled.
USB	 USB device or printer is connected.

3.2.3 Status

Status allows you to view your device information including internet, LAN, WAN and Wi-Fi. You can connect, disconnect or change the SSID of the device here.

3.2.4 Statistics

The internet statistics can be seen here, both for your current session and your total traffic for the month.

Note: These figures are only meant to be used as a guide.

LAN and Wi-Fi statistics can also be viewed.

3.2.5 Setup wizard

You can make changes to basic connection settings here and enable/disable data roaming.

On the next page, you can change the SSID or enable/disable 2.4GHz or 5GHz.

On the final page, you can set up your Wi-Fi security and change the Wi-Fi key.

4. Services

You can navigate to **Services** and click the items you want. In this section, the following items are included:

4.1 SMS

Inbox: List the messages received.

Outbox: List the messages sent successfully.

Drafts: Unsent messages are saved here.

New message: Write a new message.

SMS Settings: Configure settings for messaging.

How to read an SMS:

Left-click the content of the message you wish to read.

How to send an SMS:

- 1) Click on **SMS**.
- 2) Left-click on **New message**.
- 3) Input the recipient's number and message content.
- 4) Click **Send**.

Note: Messages can be saved to **Drafts** by clicking on **Save**. An SMS message cannot be sent to multiple recipients simultaneously.

How to forward an SMS:

- 1) Click on the content of the message that you wish to forward.
- 2) Click **Forward**.
- 3) Input the new recipient's number.
- 4) Click **Send**.

How to reply to an SMS:

- 1) Left-click the message in your **Inbox** that you wish to reply to.
- 2) Click **Reply**.
- 3) Input the content that you wish to send.
- 4) Click **Send**.

How to delete an SMS:

- 1) Find the message you wish to delete in either the Inbox, Sent or Draft folder.
- 2) Tick the box in the far right column for the message(s) that you wish to delete.
- 3) Click **Delete**.

How to delete all SMS:

- 1) Left-click at the top of the column to select all.
- 2) Click **Delete**.

How to enable SMS delivery reports:

- 1) Click **SMS Settings**.
- 2) Click  .

How to disable SMS delivery reports:

- 1) Click **SMS Settings**.
- 2) Click  .

SMS Settings:

SMS delivery reports: You can enable or disable delivery reports here.

SMS centre: This is preset and is non-editable.

4.2 Call logs

You can view your call history here. Once the device is connected, you can view all call logs, including incoming calls, outgoing calls, and missed calls.

4.3 Share

4.3.1 Storage share

Samba and FTP

The Samba and FTP Service allows computers running different operating systems to access files in the USB storage device connected to your Cat7 Router.

- **How to access files in the USB storage via Samba:**

- 1) Log in to your Cat7 Router Web-UI and go to **Services > Share > Device access > Connected devices**. Ensure that the **Access Storage** of the connected devices is enabled.
- 2) Go to **Services > Share > USB** and enter the administrator password.
- 3) Enable **Samba**.
- 4) **On Windows OS:** Go to 'My Computer'. Click in the navigation bar where it says 'Computer' and input \\192.168.1.1 (If default IP address is changed, Samba IP address will be changed accordingly). Double-click on the **admin** shared folder and input your username and password (same as the credentials used to log in to the Web UI) to access the USB storage.

On Mac OS: There are 2 ways to access files in the USB storage via Samba:

- Go to 'File > New Finder Window'. Check for Cat7 Router under Shared and left-click on it. Click on 'Connect As..' and select 'Registered User'. Enter your username and password (same as the credentials used to log in to the Web UI). Then double-click on **admin**.

- Select 'Go' > Connect to Server. Input smb://192.168.1.1 (If default IP address is changed, Samba IP address will be changed accordingly.) The shared folder will then appear in the folder list. Input your username and password (same as the credentials used to log in to the Web UI), and click connect.

- **How to access files in the USB storage via FTP:**

- 1) Download and install your chosen FTP program.
- 2) Log in to your Cat7 Router Web-UI and go to **Services > Share > Device access > Connected devices**. Make sure that connected devices have enabled the **Access Storage** permission.
- 3) Go to **Services > Share > USB mass storage** and enter the administrator password.
- 4) Enable **FTP**.
- 5) Input the following details into your FTP program:
Host: 192.168.1.1
Username: admin
Password: (same as password to log in to the Web UI)
- 6) You may now connect.

4.3.2 USB

- **USB mass storage**

- 1) Click on **Services > USB mass storage** and enable **Samba**.
 - 2) Click **Start**, enter `\\192.168.1.1`, and press **Enter**. You can then access the storage in the same way as outlined above.
- **USB Printer**
- 3) Connect a USB printer via the USB port on your Cat7 Router.
 - 4) Connect your computer to your Cat7 Router.
 - 5) Install the printer driver on your computer and select the USB printer from the printer list on your computer.
Note: Set the printer port as a standard TCP / IP port with address 192.168.1.1 (this should be the same as your Cat7 Router Web-UI address).
 - 6) Click **File** and select **Print** to start printing.

4.3.3 DLNA

Sharing Files Using the DLNA Function.

After enabling Digital Living Network Alliance (DLNA), you can use a connected device that support DLNA to perform functions such as accessing multimedia files stored on a USB device.

- 1) Download and install your chosen DLNA program.
- 2) Go to **Services > Share > DLNA**. Input your administrator password and click **Log in**. You may now enable or disable **DLNA**.
- 3) Open your DLNA program on the connected device to view the DLNA content.

4.3.4 Device access

You can configure access to the internet and storage for any connected devices. Connected devices will be shown in the table on this page, it is possible to enable or disable access for each device. You may also rename each connected device.

5. Settings

You can go to **Settings** and make changes to the following:

Dial-up

WAN

Wi-Fi

Security

NAT

QoS

LAN

5.1 Dial-up

5.1.1 Network connection

Network connection allows you to configure connection mode, data roaming and IP mode.

5.1.2 Profile management

Profile management allows you to set up a new APN profile or edit/delete existing profiles.

- **Add a new profile**

- 1) Click **New**.

- 2) Input the correct parameters for your network operator. Profile name, dial number and APN are required as a minimum.

- 3) Click **Save**.

- **Edit a profile:**

- 1) Select the profile from the profile management list.

- 2) Click **Edit** to change the parameters.

- 3) Click **Save**.

- **Delete a profile:**

- 1) Select the profile from the profile management list.

- 2) Click **Delete**.

Note: The default profile cannot be deleted.

- **Setting as default:**

- 1) Select the profile from the profile management list.
- 2) Click **Set default**.

Note: Once the new profile has been set as default, (Default) will be added next to the profile name.

5.1.3 Network settings

You can set the network search mode to either Auto or Manual, and change the network mode to Auto, 2G only, 3G only or 4G only. Make sure that you click **Apply** after making any changes.

5.1.4 Monthly plan

Here you can set your monthly data plan, set a data limit, configure auto-disconnect settings, etc.

5.2 WAN

5.2.1 WAN status

Here you can view detailed information on the wide area network (WAN), including IP address, subnet mask, gateway, DNS server, etc.

5.2.2 Configure WAN

Set up the WAN connection mode and parameters here. You can set the connection mode to PPPoE, DHCP or static IP.

PPPoE: PPPoE stands for Point-to-Point Protocol over Ethernet. This is a network protocol that is mainly used for DSL services whereby individual users connect to a modem using an Ethernet connection. Enter the username and password provided by your network service provider and click **Apply**.

DHCP: Dynamic Host Configuration Protocol (DHCP) is a client /server protocol that automatically provides you with an Internet Protocol (IP) host. The IP address and related configuration settings such as subnet mask and default gateway are all automatically assigned. Select DHCP and click **Apply**.

Static IP: Access the internet using a fixed IP address, subnet mask, gateway IP address and Primary DNS server. These should all be provided by your network service provider.

5.2.3 MAC Clone

Using the MAC Clone function, multiple clients can connect to the Cat7 Router and access the internet.

Your current MAC address is displayed here. Click **Reset** to set a new MAC address. Click **Clone** to copy your host MAC address.

5.3 Wi-Fi

5.3.1 Basic

The screenshot displays the LINKHUB router's web interface for configuring Wi-Fi settings. The top navigation bar includes 'Home', 'Services', 'Settings', and 'System'. The left sidebar lists various settings categories: Dial-Up, WAN, Wi-Fi, Basic, Advanced, WPS, Security, NAT, QoS, and LAN. The main content area is titled 'Basic' and is divided into two sections for 2.4GHz and 5GHz Wi-Fi. For the 2.4GHz section, the 'Wi-Fi 2.4GHz' toggle is turned on. The SSID is set to 'HH70VH_D8FC', SSID broadcast is enabled, security is set to 'WPA/WPA2', and encryption is set to 'Auto'. The Wi-Fi password is masked with dots, and there is a 'Show password' checkbox. For the 5GHz section, the 'Wi-Fi 5GHz' toggle is also turned on, and the SSID is set to 'HH70VH_D8FC_5G'.

- **SSID:** This is the name of the Wi-Fi network and is used to identify your Wi-Fi network. The SSID can be between 1 and 32 characters long.

- **SSID Broadcast:** This is enabled by default.

Note: If you do choose to disable this, the SSID will no longer be displayed and will need to be entered manually.

- **Security:** You can choose the security mode, available options are **Disable**, **WEP**, **WPA**, **WPA2**, or **WPA/WPA2**.
- **Encryption:** This is set to **Auto** by default, available options are **TKIP**, **AES**, or **Auto**.
- **Password:** You can check your Wi-Fi key here.

5.3.2 Advanced

The screenshot shows the LINKHUB Advanced settings page. The interface includes a navigation bar with 'Home', 'Services', 'Settings', and 'System'. A sidebar on the left lists various settings categories: Dial-Up, WAN, Wi-Fi, Basic, Advanced, WPS, Security, NAT, QoS, and LAN. The main content area is titled 'Advanced' and is divided into two sections: 2.4GHz and 5GHz. Each section contains several configuration options: Country/Region (set to UNITED KINGDOM), Channel (set to Auto), 802.11 mode (set to 802.11b/g/n for 2.4GHz and 802.11a/c for 5GHz), AP isolation (enabled), and Bandwidth (set to Auto).

Country/Region:

- **Channel:** Different regions use different channels (Channel 1-11 in FCC (US) / IC (Canada); Channel 1-13 in ETSI (Europe); Channel 1-13 in MKK (Japan)).
- **802.11 Mode:** You can select from the available options via the drop-down menu. For 2.4GHz, this is set to **802.11b/g/n** by default. For 5GHz, this is set to **802.11a/c** by default.
- **AP isolation:** You can enable or disable this function.
- **Bandwidth:** You can select from the available options via the drop-down menu. This is set to **Auto** by default.


5.3.3 WPS

Use the WPS key to verify the WPS access credentials. Your router will receive an access request from the client within 2 minutes. Enter the WPS key from the wireless access client, then click **Apply**. (For more information on how to set up WPS, please see page 10)


5.4 Security

5.4.1 PIN management

- **Enabling nano-SIM PIN:**

- 1) When nano-SIM PIN is disabled, click  .
- 2) Enter a nano-SIM PIN that is 4-8 digits long.
- 3) Click **Apply**.

- **Disabling nano-SIM PIN:**

- 4) When nano-SIM PIN is enabled, click  .
- 5) Enter the current SIM PIN.
- 6) Click **Apply**.

- **Changing nano-SIM PIN:**

- 7) When nano-SIM PIN is enabled, click **Change SIM PIN**.
- 8) Enter the old nano-SIM PIN and confirm the new nano-SIM PIN.
- 9) Click **Apply**.

Note: When a nano-SIM PIN is entered incorrectly 3 times, a PUK code is required. You can obtain this by calling customer services on 150 using your nano-SIM.

5.4.2 WAN ping

For improved security, your device will not respond to ping commands when this function is disabled.

5.4.3 IP filter

By default, any device connected to your Cat7 Router is allowed to access the internet. You can use the IP filter to block specific devices from accessing the internet.

Disable: All connected devices can access the internet.

Whitelist: Only devices with an IP address added to this list can access the internet.

Blacklist: Devices with an IP address added to this list cannot access the internet.

5.4.4 MAC filter

By default, any device connected to your Cat7 Router is allowed to access the internet. You can use the MAC filter to block specific devices from accessing the internet.

Disable: All connected devices can access the internet.

Whitelist: Only devices with a MAC address added to this list can access the internet.

Blacklist: Devices with a MAC address added to this list cannot access the internet.

5.4.5 URL filter

This function enables the administrator to block specific devices from accessing specified URL(s) during set time periods.

Note: Blocking a URL may not block the associated app. For example, adding `www.facebook.com` may not block the specified device from using the Facebook app.

5.5 NAT

5.5.1 DMZ


If external users cannot access certain network services provided by the LAN, you can enable DMZ and set a new Host IP address. Click to enable it. Enter an appropriate Host IP address and then click **Apply**.

5.5.2 UPnP

Universal Plug and Play (UPnP) is a set of networking protocols that allows devices connected to your Cat7 Router to discover each other and establish functional

network services for data sharing, communications, and entertainment. You may enable or disable UPnP. This function is disabled by default.

5.5.3 Virtual Server

This device supports virtual server connections, enabling external users to access the services provided in the local area network (LAN) using the Hypertext Transfer Protocol (HTTP), File Transfer Protocol (FTP), and other protocols. Click  to enter the parameters, including name, LAN IP address, LAN port, WAN port, etc. Click **Apply** when finished.

5.6 QoS

Quality of Server (QoS) is an advanced feature that prioritises internet traffic for applications, online gaming, Ethernet LAN ports, or specified MAC addresses to minimise the impact of busy bandwidth. Enable QoS, set your uplink and download limits, and click **Apply**.

5.7 LAN

Local area network (LAN) parameters are displayed here. The default Gateway address is 192.168.1.1.

The default Subnet Mask is 255.255.255.0.

DHCP Server will automatically assign IP addresses to devices in the network. DHCP Server is disabled by default.

6. System

6.1 Device info

You can view device information here, including IMEI, software version, and MAC address.

6.2 Reboot and reset

Click **Reboot** to reboot the device. Click **Reset** to restore factory default settings. You also can use the reset button on your Cat7 router.

6.3 Update

Online updates:

Click **Check for updates**. Your Cat7 Router will check if there is an update available. If one is found, you may click **Download**. Once the file has been downloaded successfully, you can click **Update**.

Note: Do not power off your router during the update process as this may damage the device.

6.4 Device management

6.4.1 Login password

Enter your current password and confirm a new password. Your chosen password must be between 4-16 characters long.

6.4.2 System settings

You can set the language and the correct time zone here. Note that the time is automatically adjusted for Daylight Saving Time.

6.4.3 NTP server

Network Time Protocol (NTP) is a networking protocol for clock synchronisation between computer systems over packet-switched data networks. You can specify which NTP servers to use

6.4.4 Backup & restore

How to save the configuration:

Click **Backup** to backup current device configuration. On both Windows and MAC OS, this is saved to your 'Downloads' folder.

How to restore the configuration:

- 1) Click **Browse** to select a file.
- 2) Click **Restore**.

6.4.5 TR069

TR-069 (Technical Report 069) is a technical specification that defines an application layer protocol for remote management of end-user devices. Click

to enable Inform, enter Inform interval, ACS URL, ACS username, and ACS password. Click **Apply** when finished.

7. Warranty

Your device is warranted against any defect or malfunctioning which may occur in conditions of normal use during the warranty period of twenty-four (24) months¹ from the date of purchase as shown on your original invoice.

Accessories sold with your device are also warranted against any defect which may occur during the first twelve (12) months⁽¹⁾ from the date of purchase as shown on your original invoice.

In case of any defect of your device which prevents you from normal use thereof, you must immediately inform your vendor and present your device with your proof of purchase.

If the defect is confirmed, your device or part thereof will be either replaced or repaired, as appropriate. Repaired device and accessories are entitled to a one (1) month warranty for the same defect. Repair or replacement may be carried out using reconditioned components offering equivalent functionality.

This warranty covers the cost of parts and labor but excludes any other costs.

This warranty shall not apply to defects to your device and/or accessory due to (without any limitation):

- Non-compliance with the instructions for use or installation, or with technical and safety standards applicable in the geographical area where your device is used;
- Connection to any equipment not supplied or not recommended by TCL Communication Ltd.;
- Modification or repair performed by individuals not authorised by TCL Communication Ltd. or its affiliates or your vendor;
- Modification, adjustment or alteration of software or hardware performed by individuals not authorised by TCL Communication Ltd.;
- Inclement weather, lightning, fire, humidity, infiltration of liquids or foods, chemical products, download of files, crash, high voltage, corrosion, oxidation.

Your device will not be repaired in case labels or serial numbers (IMEI) have been removed or altered.

There are no express warranties, whether written, oral or implied, other than this printed limited warranty or the mandatory warranty provided by your country or jurisdiction.

¹ The warranty period may vary depending on your country.

In no event shall TCL Communication Ltd. or any of its affiliates be liable for indirect, incidental or consequential damages of any nature whatsoever, including but not limited to commercial or financial loss or damage, loss of data or loss of image to the full extent those damages can be disclaimed by law.

Some countries/states do not allow the exclusion or limitation of indirect, incidental or consequential damages, or limitation of the duration of implied warranties, so the preceding limitations or exclusions may not apply to you.

8. Q&A

How can I access the Home page?

- 1) Open the web browser.
- 2) Enter <http://192.168.1.1> in the address bar.
- 3) Once the Cat7 Router home page is displayed, enter the login password: **admin**.
- 4) Click **Log in**.

What should I do if I can't log in to the web management page?

- 1) Make sure the power indicator of the device is on (solid blue). If not, power on the device.
- 2) Check whether the connection between end user's device and Cat7 Router is functioning properly.
 - If the end user is connected to the Cat7 Router through Wi-Fi, go to the Wi-Fi connection page to check the connection status.
 - If end user's device is connected to Cat7 Router using a network cable, check whether the LAN / WAN indicator is on (solid blue).
- 3) Make sure 192.168.1.1 is entered correctly in the web browser.

What should I do if I can't access the internet?

- 1) Make sure your SIM is a 4G, 3G or 2G nano-SIM.
 - If no nano-SIM is detected, power off your Cat7 Router, reinsert the nano-SIM, and try again.
 - If a PIN is required, enter the PIN and try again.
 - If no network is available, move the device to a an area with a better signal (try placing it near a window) and try again.
- 2) Make sure 192.168.1.1 is entered correctly in the web browser and click **Enter**.

- 3) Reboot your Cat7 Router and try again.
- 4) If MAC address filtering is enabled, make sure your device MAC address is on the approved list.
- 5) If Parental Control is enabled, make sure your device name and MAC address is not under parental control.

What should I do if I experience any issue with the device?

- 1) Restart the device.
- 2) Reset the device to its factory settings.
- 3) Contact your service provider.

What should I do if I forget the Wi-Fi key?

- 1) Log in the web configuration page (192.168.1.1 as default). Go to Settings > Wi-Fi > Basic. Click **Show password** to obtain the current Wi-Fi Key.
- 2) Reset the device to factory default settings. Use a paper clip or a blunt pin to gently press the reset button for 3 seconds. The Wi-Fi key will be reset to the default password, which can be found on the bottom label of the device. During the reset, all LEDs will turn on, then off, and finally turn on again once the reset is completed.

Which operating system does the device support?

The device supports the following operating systems:

- 1) Windows 7/8/10.
- 2) Mac OS X (10.6.X-10.12.X)
- 3) Linux.

How can I connect Cat7 Router via Wi-Fi?

Open your Wireless Network Connection list.

Follow these steps to select the device SSID:

For a Windows device:

- 1) Right-click **Wireless Network Connection** on the task bar.
- 2) Select the network name (SSID) of your Cat7 Router, click **Connect**, and enter the Wi-Fi key.

For Mac:

- 1) Click the AirPort icon.

- 2) Select the network name (SSID) of your Cat7 Router from the drop-down menu and enter the Wi-Fi key.

What should I do if I see the SSID but the device fails to connect?

Make sure you have entered the correct Wi-Fi key.

What should I do if the network indicator is solid red?

When there is no nano-SIM, no service, or the device is not registered to the network, the network indicator on Cat7 Router is solid red.

- 1) If using a nano-SIM:
 - Make sure the nano-SIM is valid and inserted correctly.
 - Move the Cat7 Router to an area with a better signal (try placing it near a window).
- 2) If using an ethernet connection, check if the network is working properly.

What should I do if a multi-network IP address conflict occurs?

IP address conflict could happen when a computer is using multiple types of internet connections. For example, the computer may be connected to the Cat7 Router via an ethernet cable and another network via Wi-Fi. If IP addresses are the same, you may be unable to log in Cat7 Router home page due to an IP address conflict.

Why does the SSID not appear in the wireless network list?

Follow the steps below to make sure the device is set up correctly:

- 1) Check the device to see if the Wi-Fi indicator is on or off.
- 2) Refresh the network list on your computer.

For Windows:

- 1) Click the Refresh Network icon on the right top corner of the Wireless Network Connection screen.
- 2) Right-click **Wireless Network Connection**.
- 3) Click **Open network and sharing centre**.
- 4) Select **Wireless Management**.
- 5) Click the wireless network which is not being used, and delete it from network list.
- 6) Click **OK** and restart your computer.

For Mac: Try rebooting your computer.

What should I do if it says "No SIM" or "Invalid SIM" on the Cat7 Router configuration page?

Possible reasons for this may be that there is no nano-SIM inserted in the device, it is inserted incorrectly, or the nano-SIM is disabled. Try removing your nano-SIM and reinserting it. Make sure not to touch the contact points when doing so.

What should I do if "PIN lock" or "PUK lock" is displayed on the screen of the device connected to Cat7 Router?

This means the nano-SIM is locked.

Log in to the Home page (refer to "How can I access the Home page?") and enter your PIN code or PUK code. To obtain the PUK code, contact your network operator.

Note: If the incorrect PIN is entered 3 times you will be required to enter the PUK code. If the incorrect PUK code is entered 10 times the nano-SIM will be permanently blocked.

How can I connect to the 4G network?

- 1) Log in to the Home page (refer to "How can I access the Home page?").
- 2) Go to **Settings > Network settings > Network mode.**
- 3) Select **4G only.**

How can I disconnect from the 2G, 3G or 4G network?

- 1) Log in to the Home page (refer to "How can I access the Home page?").
- 2) Go to **Status > Internet.**
- 3) Click **Disconnect.**

How can I set a new PIN for my nano-SIM?

- 1) Log in to the Home page (refer to "How can I access the Home page?").
- 2) Go to **Settings > Security > PIN management.**
- 3) Enable PIN operation.
- 4) Enter new PIN code.
- 5) Click **Apply.**

How can I find more information about Wi-Fi setup?

- 1) Log in to the Home page (refer to "How can I access the Home page?").
- 2) Go to **Settings > Wi-Fi.**

How can I check usage data?

- 1) Log in to the Home page (refer to "How can I access the Home page?").
- 2) Go to **Statistics > Internet**.

How can I manually search for the network?

- 1) Log in to the Home page (refer to "How can I access the Home page?").
- 2) Go to **Settings > Dial-up > Network connection**.
- 3) Select **Manual** from the network connection mode.
- 4) Click **Apply**.

How can I check my device's model number and firmware version?

- 1) Log in to the Home page (refer to "How can I access the Home page?").
- 2) Go to **System > Device info**.

How can I set the data connection to connect to the internet automatically?

- 1) Log in to the Home page (refer to "How can I access the Home page?").
- 2) Go to **Settings > Dial-up > Network connection**.
- 3) Select **Auto**.
- 4) Click **Apply**.

How do I change the SSID and Wi-Fi key?

- 1) Log in to the Home page (refer to "How can I access the Home page?").
- 2) Go to **Settings > Wi-Fi > Basic**.

How can I change the login password?

- 1) Log in to the Home page (refer to "How can I access the Home page?").
- 2) Go to **System > Device management > Login password**.