5G Outdoor CPE N5368X
Quick Start

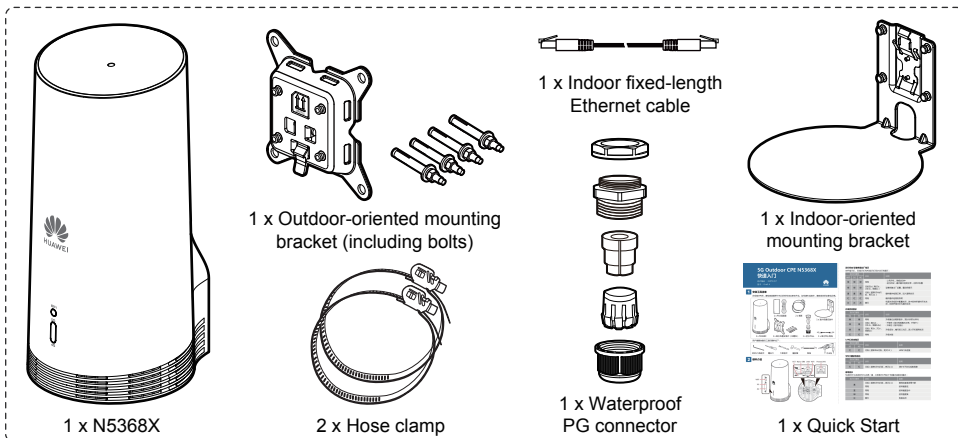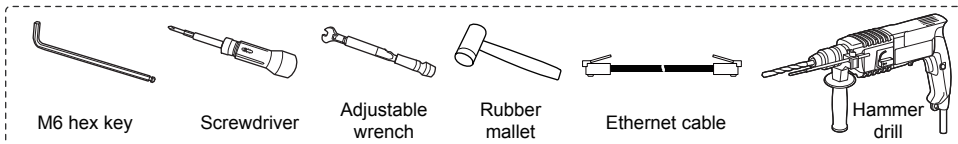Part Number: 31071318
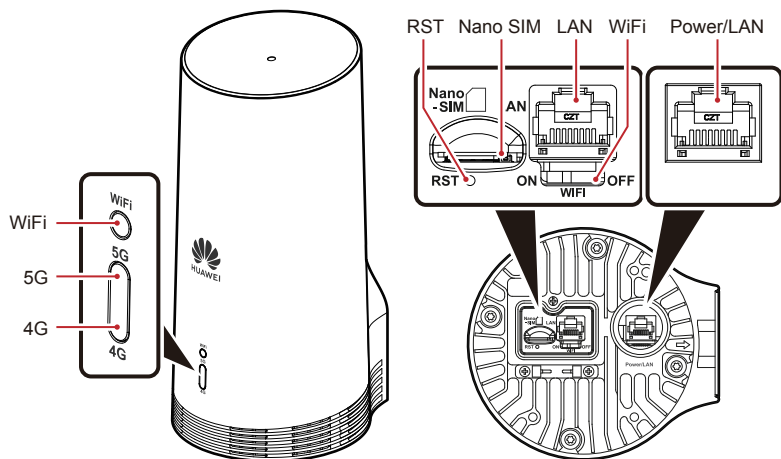
Version: Draft C

HUAWEI

1 Tools

Before installing the CPE, verify that you have all the items listed in the packing list. If any of the items is missing or damaged, contact your device provider.

1 x N5368X

1 x Outdoor-oriented mounting bracket (including bolts)

2 x Hose clamp

1 x Indoor fixed-length Ethernet cable

1 x Waterproof PG connector

1 x Indoor-oriented mounting bracket

1 x Quick Start

You need to prepare the following tools and auxiliary materials:

M6 hex key   Screwdriver   Adjustable wrench   Rubber mallet   Ethernet cable   Hammer drill

2 Hardware Introduction

RST   Nano SIM   LAN   WiFi   Power/LAN

WiFi

5G

4G

Running Status/Factory Reset Indication

The **WiFi** indicator, **5G** indicator, and **4G** indicators are on and off simultaneously.

Color			Status	Description
WiFi	5G	4G		
Green	Green	Green	Steady on	· The device is powered on and starting up. · The device is running properly. The hardware is normal, and there is no software alarm.
Green	Green	Green	Blinking thrice (on for 0.5s and off for 0.5s)	The device is about to restore the factory settings and restart.
Yellow	Yellow	Yellow	Blinking at 0.5 Hz (on for 1s and off for 1s)	The hardware component is normal and the network searching state starts.
Red	Red	Red	Steady on	An exception in hardware component is detected.
Gray	Gray	Gray	Off	The power is off or software configuration is disabled. If the Wi-Fi hardware switch is turned off, the WiFi indicator is off.

Upgrade Status Indication

Color		Status	Description
5G	4G		
Green	Green	Steady on	The device is restarted for an upgrade to load the new version. The process is expected to take about 5 minutes.
Green	Green	Blinking(on for 0.2s and off for 0.2s)	· Before an upgrade (normal version verification and decompression; upgrade in progress) · After an upgrade (version verification)
Green	Green	Blinking (on for 1s and off for 1s)	When the upgrade is successful, the indicator blinks green slowly thrice, and then the device starts up and enters the network searching state.
Red	Red	Steady on	The upgrade fails.

LAN Port Status Indication

Color		Status	Description
5G	4G		
Red	Red	Blinking at 2 Hz (on for 0.25s and off for 0.25s)	The LAN port is not connected.

SIM Card Slot Status Indication

Color		Status	Description
5G	4G		
Red	Red	Blinking at 0.5 Hz (on for 1s and off for 1s)	The SIM card is not properly installed or is faulty.

Signal Indication

Either the 5G indicator or the 4G indicator is on, indicating that the CPE works in 5G or 4G mode.

| Color	Status	Description
Yellow	Blinking at 0.5 Hz (on for 1s and off for 1s)	Network search or network interruption
	Steady on	Low signal strength
Blue	Steady on	Moderate signal strength
Green	Steady on	High signal strength
Gray	Off	The power is off.

Port

| Item	Silkscreen	Description
Power supply port	Power/LAN	Connects to the WAN power supply port on the PSU to support network transmission and PSU power supply.
Port	LAN	Connects to terminal devices to support network transmission. When devices are connected on both this port and the power supply port Power/LAN, the two ports compete for IP addresses allocated by the N5368X.
	Nano SIM	Slot for housing a nano SIM card.
Button	RST	Reset button： · After the device starts normally, press and hold this button for 2s to 10s to restore factory settings. · After the CPE is reset or when the CPE is powered on and restarted, press and hold this button for more than 20s until the indicator is steady green, which indicates a successful version rollback.
	WiFi ON/OFF	Enables or disables the Wi-Fi function, which is available only in routing mode.

3 Installation Scenario

1 Outdoor Installation

The N5368X can be installed outdoors on a pole or wall and must be within the 45-degree protection angle of the lightning rod.
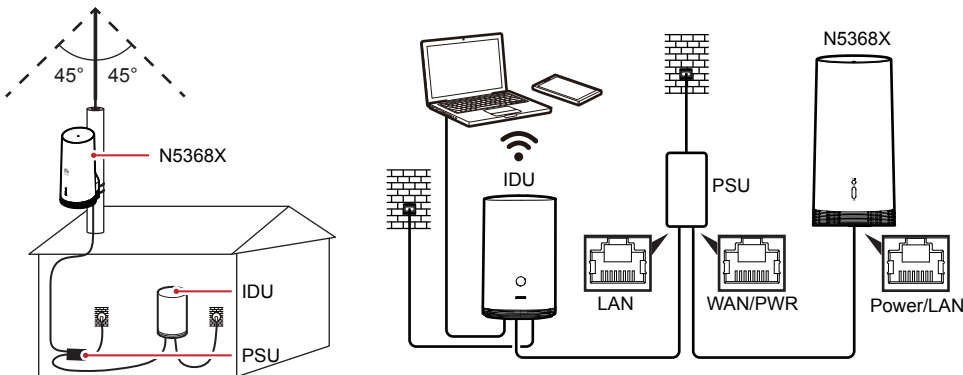
2 Indoor Installation

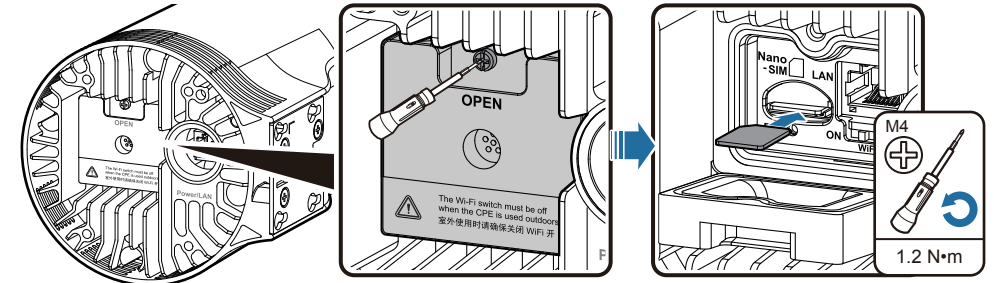The N5368X as an indoor integrated device can be horizontally placed on the workbench indoors.
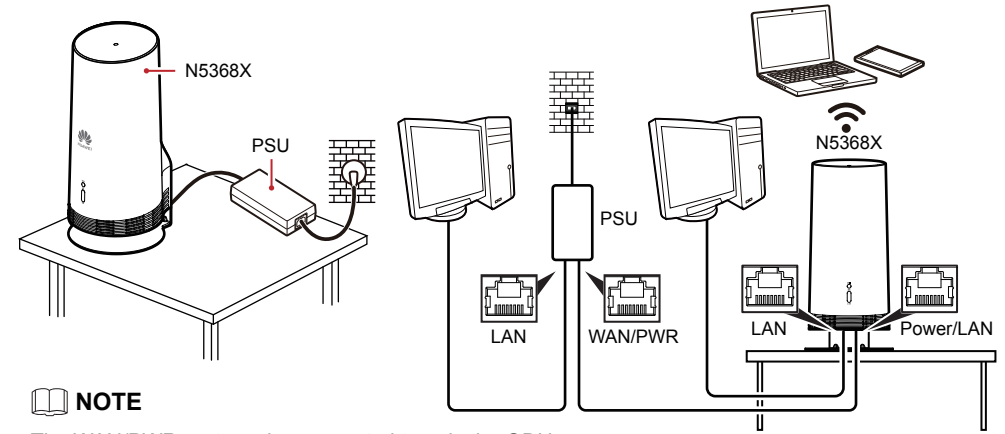
📖 **NOTE**

The WAN/PWR port can be connected to only the ODU.
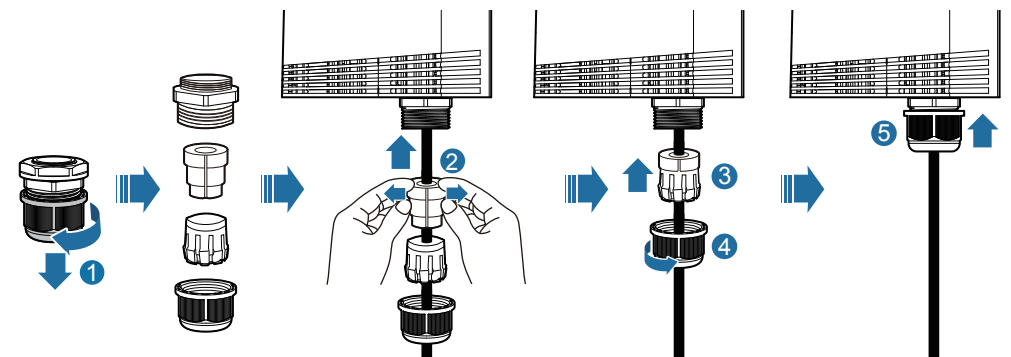
4 Installing the N5368X

1 Outdoor Installation

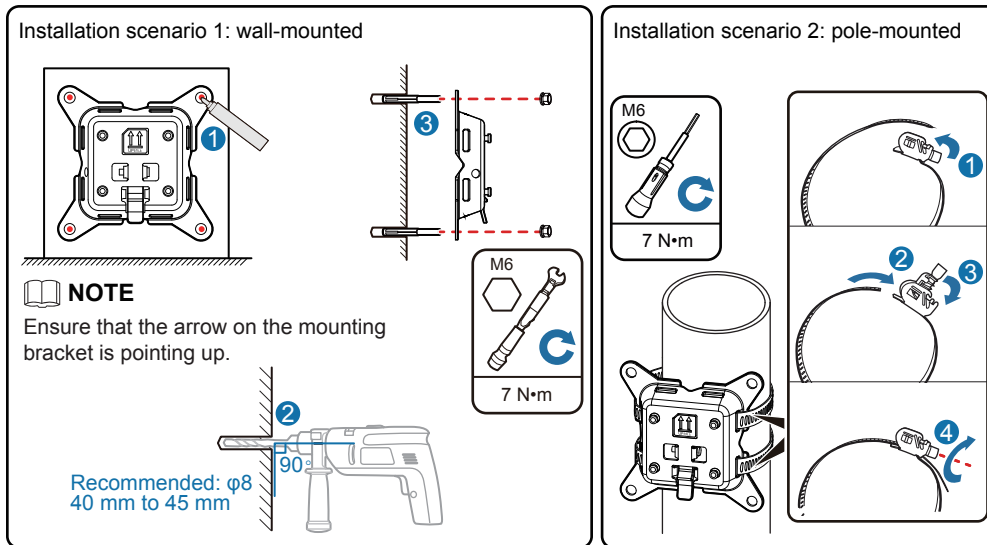① Open the maintenance cover of the N5368X, install the nano SIM card, and secure the maintenance cover.

NOTICE

The WiFi switch must be off when the CPE is used outdoors.

② Connect the Ethernet cable to the N5368X.

③ Install the mounting kits.

Installation scenario 1: wall-mounted

📖 NOTE

Ensure that the arrow on the mounting bracket is pointing up.

Recommended: φ8
40 mm to 45 mm

Installation scenario 2: pole-mounted

M6 — 7 N•m

M6 — 7 N•m

④ Hang the four cucurbit holes on the metal plate at the rear of the N5368X onto the four gourd-shaped mounting pegs on the mounting bracket. If you hear a click, the N5368X is installed properly.



Gourd-shaped mounting peg

Ka
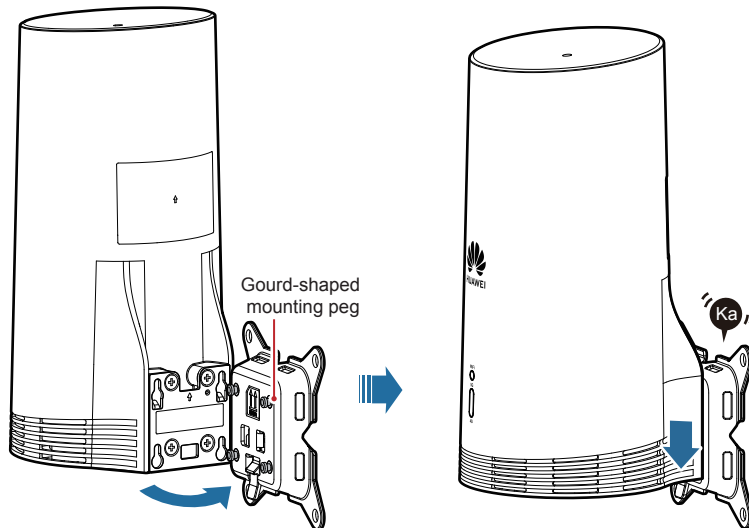
NOTICE

The rotation must not be stopped until you hear a click. This is to ensure that the device is securely installed and will not fall down and be damaged.

2 Indoor Installation

① Open the maintenance cover of the N5368X, install the nano SIM card, and secure the maintenance cover.

OPEN

Nano-SIM LAN ON WiFi

M4 — 1.2 N•m

NOTICE

The WiFi switch must be off when the CPE is used outdoors.
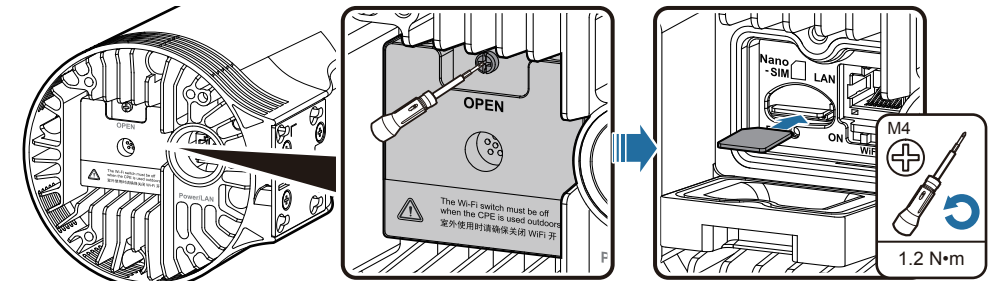
② Insert one end of an Ethernet cable into the Power/LAN port, and insert the other end into the WAN/PWR port on the PSU through the hole at the bottom of the base. If another device needs to be connected, insert another Ethernet cable into the LAN port in the N5368X maintenance cover.

📖 NOTE

The LAN port of the N5368X is used only indoors. If this port is used outdoors, the waterproof function of the device may fail.

③ Hang the four cucurbit holes on the metal plate at the rear of the N5368X onto the four gourd-shaped mounting pegs on the mounting bracket. If you hear a click, the N5368X is installed properly.

Gourd-shaped mounting peg

Ka
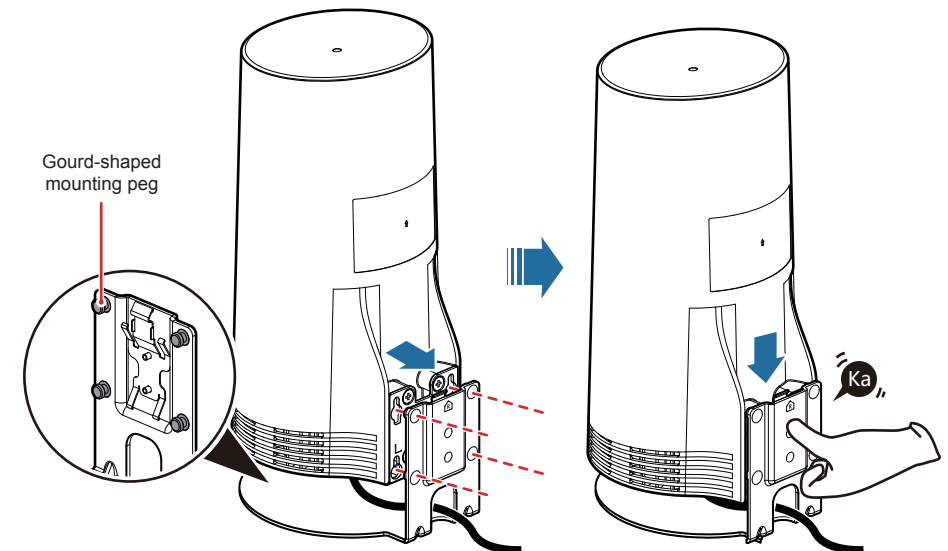
NOTICE

The rotation must not be stopped until you hear a click. This is to ensure that the device is securely installed and will not fall down and be damaged.

5   Login to the WebUI in IDU+ODU Mode

The web-based user interface (WebUI) of the N5368X provides a browser-based interface to configure and manage the device with ease. This section uses the IDU+ODU architecture as an example.

1 When a PC is used for direct login to the CPE, manually configure the IP address of the PC to be in the same network segment as the IP address of the IDU.

    1. On the task bar of the Windows operating system, choose **Start > Run**. Type **cmd** in the displayed dialog box and press **Enter**. The command line interface is displayed.

    2. Enter **route add 192.168.8.0/24 192.168.3.1 -p**.

> **📖 NOTE**
>
> · 192.168.3.1 is used as an example of the default IP address of the IDU. The default IP address of the 5G CPE is 192.168.8.1, and the subnet mask is 255.255.255.0.
>
> · If the CPE is accessed through the IDU, obtain the PC address by referring to the corresponding device guide.
>
> · If the CPE is accessed through the IDU, an appropriate address must be configured on the WAN side of the IDU. If the WAN side does not obtain a valid IP address, manually add on the IDU an IP address that is in the same network segment as the 5G CPE N5368X.
>
> · It is strongly recommended that the IDU be configured to obtain the WAN IP address dynamically by DHCP. Otherwise, when only the N5368X is restarted to access the network, the IDU WAN IP address may not match the IP address allocated by the network side, causing service exceptions.

2 Determine whether the N5368X is connected to the network:

    · If the N5368X has accessed the network, you can configure the IDU to automatically obtain an IP address to maintain the N5368X.

    · If the N5368X has not accessed the network, you need to manually enter the IP address on the IDU to configure and maintain the N5368X.

3 Start the Internet Explorer, enter **http://192.168.8.1** in the address box, and press **Enter**.

> **📖 NOTE**
>
> · If you use Internet Explorer, Internet Explorer 11.0 or later is preferred.
>
> · On Internet Explorer browsers earlier than version 11.0, choose Internet **Options > Advanced > Settings > Security** to enable TLS 1.2.

4 Enter the user name and password to log in to the WebUI. The default user name and password are both **admin**.

> **📖 NOTE**
>
> · The system forcibly requests you to change the login password upon the first login. For security purposes, it is strongly recommended that you periodically change the login password.
>
> · A maximum of three incorrect login attempts are allowed during login or password modification. After three consecutive login failures, the login page will be locked for 3 minutes.
>
> · If you do not perform any operation within 5 minutes after a successful login to the WebUI, you will be forcibly logged out.

5 For details about how to log in to the WebUI of an IDU, see the user manual of the IDU.

6   Login to the WebUI in Indoor Integrated Device Mode

The web-based user interface (WebUI) of the N5368X provides a browser-based interface to configure and manage the device with ease. This section uses the indoor integrated device architecture as an example.

1 When a PC is used for direct login to the CPE, ensure that the IP address of the PC is in the same network segment as the IP address of the N5368X by means of manual configuration or DHCP.

    1. On the task bar of the Windows operating system, choose **Start > Run**. Type **cmd** in the displayed dialog box and press **Enter**. The command line interface is displayed.

    2. Manually configure the IP address of the PC on the CLI.

> **📖 NOTE**
>
> The default IP address of the 5G CPE is 192.168.8.1 and the subnet mask is 255.255.255.0.

2 Start the Internet Explorer, enter **http://192.168.8.1** in the address box, and press **Enter**.

> **📖 NOTE**
>
> · If you use Internet Explorer, Internet Explorer 11.0 or later is preferred.
>
> · On Internet Explorer browsers earlier than version 11.0, choose Internet **Options > Advanced > Settings > Security** to enable TLS 1.2.

3 Enter the user name and password to log in to the WebUI. The default user name and password are both **admin**.

> **📖 NOTE**
>
> · The system forcibly requests you to change the login password upon the first login. For security purposes, it is strongly recommended that you periodically change the login password.
>
> · A maximum of three incorrect login attempts are allowed during login or password modification. After three consecutive login failures, the login page will be locked for 3 minutes.
>
> · If you do not perform any operation within 5 minutes after a successful login to the WebUI, you will be forcibly logged out.

7   Technical Specifications

N5368X Technical Specifications	Operating Frequency Bands	5G NR: n78/n77/n41/n38 LTE FDD: Band 1/Band 3/Band 7/Band 8/Band 20/Band 28 LTE TDD: Band 38/Band 40/Band 41/Band 42/Band 43 WLAN: 2.4 GHz/5 GHz **📖 NOTE** The supported operating frequency bands vary with areas. The n78 frequency band range is 3400–3800 MHz.
	Maximum Transmit Power	5G NSA: 23 dBm@1T 5G SA: 26 dBm@2T LTE: 23 dBm ODU WLAN 5G: 14 dBm ODU WLAN 2.4G: 16 dBm **📖 NOTE** The supported WLAN maximum conducted transmit power varies with areas.
Power adapter Technical Specifications	Vendor Model	HW-190126D0D
	Output Voltage	19 V ± 5%
	Output Power	24 W

8 Safety Precautions

Before using and operating this device, read the following precautions carefully to ensure optimal device performance and avoid dangers or violation of laws and regulations.

Wireless Devices
Do not use this device in areas where the use of wireless devices is prohibited as it may interfere with other devices or present other hazards.

Impact on Medical Equipment
Radio waves generated by the device may interfere with the operation of implanted medical appliances or personal medical appliances, such as the pacemakers, cochlear implants, and hearing aids. If such appliances are used, consult the appliance manufacturer about the restrictions for using the device.

Areas with Inflammables and Explosives
· Do not use the device where inflammables or explosives are stored, for example, in a gas station, oil depot, or chemical plant. Otherwise, explosions or fires may occur. In addition, follow the instructions indicated in text or symbols.
· Do not store or transport the device in containers with flammable liquids, gases, or explosives.

Children Safety
Keep the device, its accessories, and plastic bags out of the reach of children. Otherwise, they may damage the device and its accessories by mistake, or they may swallow the small components of the device or put their heads into the plastic bags, causing suffocation or other dangerous situations.

Accessory Requirements
NOTE: The accessories of the device include the power adapter, cables, and mounting kits.
Use only the accessories supplied by the device manufacturer. Otherwise, the device may be faulty, fail, or even cause fires. Violating the warranty for the device or the laws and regulations related to telecommunications terminals may cause injuries.

Operating Environment
· In outdoor scenarios, use the device at an ambient temperature of –40ºC to 50ºC. In indoor scenarios, use the device at an ambient temperature of 0ºC to 40ºC. An overly high or low ambient temperature may cause device faults.
· Use the device at an ambient humidity of 5%RH to 100%RH (non-condensing). An overly high or low ambient humidity may cause device faults.
· The power supply voltage must meet the requirements for the input voltage of the device.
· Keep the device away from electronic appliances that generate strong magnetic or electric fields, such as a transformer, microwave oven, or refrigerator.
· When using the device indoors, avoid dusty, damp, or dirty environments. Using the device in these environments may result in circuit malfunctions.
· Keep the device stable to avoid personal injury or device damage.
· Keep the device away from heat sources, flammable materials, or exposed fire sources.
· Do not install the device in areas exposed to acidic, alkaline, or other corrosive gases.
· Keep the device and accessories in a well-ventilated area. Do not enclose or cover your device with towels or other objects. Do not place the device in a container with poor heat dissipation, such as a box or bag. Poor heat dissipation may damage the device.
· During thunderstorms, power off your device and remove all cables connected to it to protect against device faults or lightning strikes.
· Do not place any object (such as a candle or a water container) on the device to avoid risks caused by liquid leakage. If any foreign object or liquid enters the device, stop using the device immediately, power it off, remove all the connected cables, and then contact your operator.
· The device temperature increases after the device runs for a while. If the device is overheated, avoid contacting it for an extended period. Otherwise, low temperature burn symptoms, such as red spots and darker pigmentation, may occur.
· In the use of the device, do not touch the cable connectors.
· Do not scratch or damage the device shell. Flaking or peeling of the paint may lead to skin allergy or malfunction of the device. If paint flakes and peels drop into the host, a short circuit may occur.

Cleaning and Maintenance
· During storage, transportation, and operation of the device, keep it dry and prevent it from colliding with other objects.
· If the device is not going to be used for an extended period of time, power it off and remove all cables connected to it.
· Keep the power plug clean and dry to prevent electric shocks or other dangers.
· If any exception occurs, for example, if the device emits any smoke or unusual sound or smell, stop using the device immediately, power it off, remove all the cables connected to it, and then contact your operator.
· Do not trample, pull, or overbend any cable. Otherwise, the cable may get damaged, causing malfunction of the device.
· Do not use damaged or aged cables. Using such cables may lead to electric shocks or fire.
· Before cleaning or maintaining the device, stop using it, power it off, and then remove all cables connected to it.
· Use a clean, soft, and dry cloth to clean the device shell. Do not use any chemical detergent, powder, or other chemical agents to clean the device.
· Do not place magnetic stripe cards, such as credit cards and phone cards, or floppy disks, near the device for extended periods of time. Otherwise, the magnetic stripe cards may be damaged or the stored data in the floppy disks may be lost.
· Without authorization, no organization or individual can change the mechanical, safety, or performance design of the device.
· When using the CPE, observe all applicable laws and regulations and respect the legal rights of other people.

Environmental Protection (WEEE)
· Do not dispose of the device and its accessories in a garbage can.
· Dispose of the device according to the local regulations on disposing of packing materials and abandoned devices. Support proper collection and recycling.

RF Exposure Information
This device meets the EU requirements and the International Commission on Non-Ionizing Radiation Protection (ICNIRP) on the limitation of exposure of the general public to electromagnetic fields by way of health protection. This device should be installed and operated with a minimum of 20 cm spacing to any person at all times.

EU Regulatory Conformance Statement
Hereby, Huawei Technologies Co., Ltd. declares that the radio equipment type is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.huawei.com/en/product-certification.

Restrictions
The functions of Wireless Access Systems including Radio Local Area Networks (WAS/RLANs) within the band 5150-5350 MHz for this device are restricted to indoor use only within all European Union countries (BE/BG/CZ/DK/DE/EE/IE/EL/ES/FR/HR/IT/CY/LV/LT/LU/HU/MT/N-L/AT/PL/PT/RO/SI/SK/FI/SE/UK/TR/NO/CH/IS/LI).