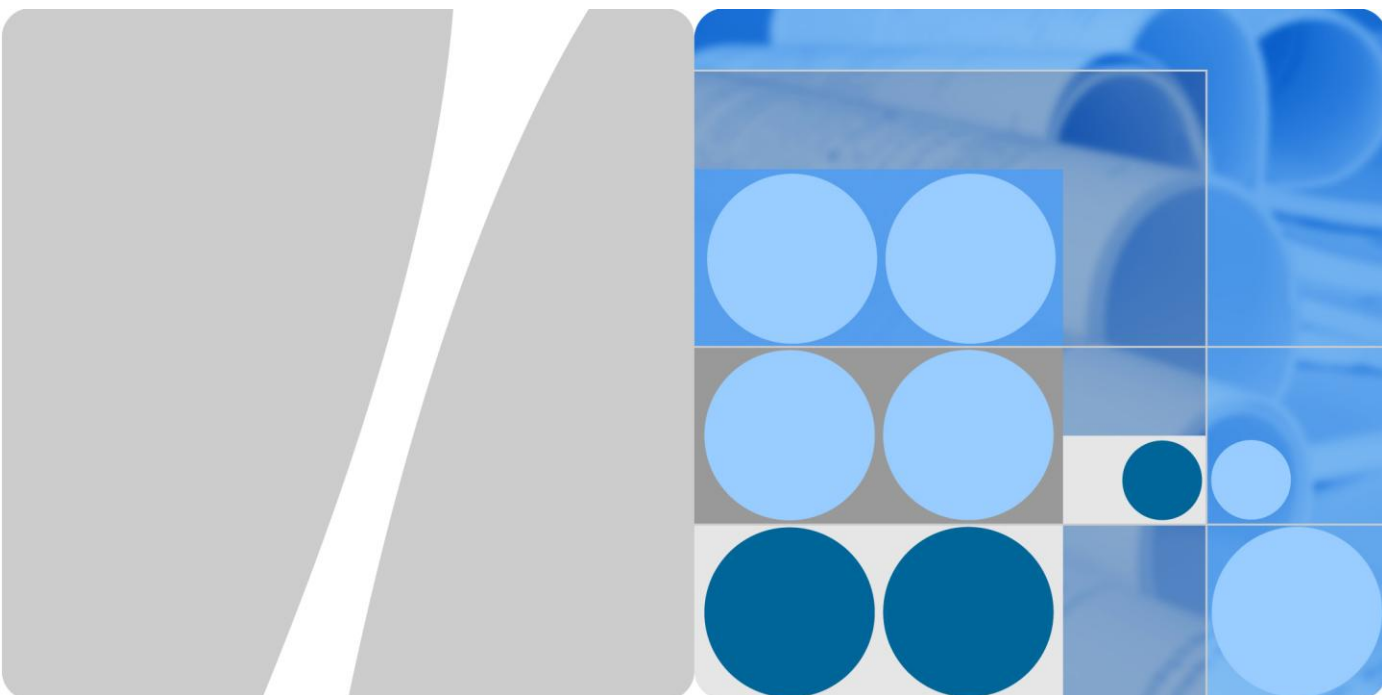


Product Description



HUAWEI E5730s-2 Mobile WiFi
V200R001

Issue 03
Date 2013-12-09

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About This Document

Summary

This document provides information about the major functions, supported services and system architecture.

The following table lists the contents of this document.

Chapter	Details
1 Overview	The supported network modes, basic services and functions, and the appearance of the product.
2 Features	The supported features and technical specifications of the product.
3 Services and Applications	The services and applications of the product.
4 System Architecture	The architecture of the product.
5 Packing List	The items contained in the package of the product.

History

Issue	Details	Date
01	First release.	2013-10-08
02	<ul style="list-style-type: none">• Modify the description of Power supply, change “Power supply” to “Charger”, change “AC: 100–240 V (Input) DC: 5 V, 2 A/1 A (Output)” to “AC: 100–240 V (Input) DC: 5 V, 2 A (Output) AC: 100–240 V (Input) DC: 5 V, 1 A (Output)”;• Add the specification of “Supplying Power to Devices”;• Modify the description of “Supplying Power to Devices”.	2013-11-19
03	Modify the description of Charger, delet “AC: 100–240 V (Input) DC: 5 V, 1 A (Output)”.	2013-12-09

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1 Overview

HUAWEI E5730s-2 Mobile WiFi (hereinafter referred to as the E5730s-2) is a high-speed packet access mobile hotspot. It is a multi-mode wireless terminal for SOHO (Small Office and Home Office) and business professionals. The E5730s-2 can access the Internet through a 3G/2G network, or using its Ethernet port. The E5730s-2 supports:

- DC-HSPA+/HSPA+/HSPA/UMTS: 2100/900 MHz
- EDGE/GPRS/GSM: 1900/1800/900/850 MHz

The E5730s-2 supports the following standards:

- Dual Carrier High Speed Packet Access Plus (DC-HSPA+)
- High Speed Packet Access Plus (HSPA+)
- High Speed Uplink Packet Access (HSUPA)
- High Speed Downlink Packet Access (HSDPA)
- Universal Mobile Telecommunications System (UMTS)
- Enhanced Data rates for Global Evolution (EDGE)
- General Packet Radio Service (GPRS)
- Global System for Mobile communications (GSM)
- Ethernet

The E5730s-2 provides the following services:

- DC-HSPA+ packet data service of up to 43.2 Mbit/s
- HSPA+ packet data service of up to 21.6 Mbit/s
- HSPA (HSUPA/HSDPA)/UMTS packet data service of up to 14.4 Mbit/s
- EDGE/GPRS packet data service of up to 236.8 kbit/s
- UMTS/GSM Short Message Service (SMS)

You can connect the E5730s-2 with the USB or Ethernet interface of a computer, or connect the E5730s-2 with the Wi-Fi. In the service area of the DC-HSPA+/HSPA+/HSPA/UMTS/EDGE/GPRS/GSM/Ethernet network, you can surf the Internet and send/receive messages/emails cordlessly. The E5730s-2 is fast, reliable, and easy to operate. Thus, mobile users can experience many new features and services with the E5730s-2. These features and services will enable a large number of users to use the E5730s-2 and the average revenue per user (ARPU) of operators will increase substantially.

Figure 1-1 shows the appearance of the E5730s-2.

Figure 1-1 Appearance



2 Features

2.1 Main Features

The E5730s-2 mainly supports the following features:

- DC-HSPA+ (DL) data service of up to 43.2 Mbit/s
- DC-HSPA+ (UL) data service of up to 5.76 Mbit/s
- HSPA+ (DL) data service of up to 21.6 Mbit/s
- HSPA+ (UL) data service of up to 5.76 Mbit/s
- HSDPA (DL) data service of up to 14.4 Mbit/s
- HSUPA (UL) data service of up to 5.76 Mbit/s
- UMTS data service of up to 384 kbit/s
- EDGE data service of up to 236.8 kbit/s
- GPRS data service of up to 85.6 kbit/s
- PS domain data service based on UMTS and GSM
- SMS based on CS/PS domain of GSM and UMTS
- Wi-Fi
- Five-second fast boot
- Support for HUAWEI Mobile WiFi App
- Supplying power to devices
- Plug and Play (PnP)
- Built-in DHCP Server, DNS RELAY and NAT
- Online software upgrade
- Traffic statistic
- Ethernet port
- PPPoE dial up
- MAC address cloning
- Standard Micro USB interface
- LED indicators
- Built-in UMTS and WLAN high gain antenna
- Windows XP SP3, Windows Vista SP1/SP2, Windows 7, Windows 8 (does not support Windows RT), MAC OS X 10.6, 10.7 and 10.8 with latest upgrades

2.2 Technical Specifications

2.2.1 Hardware

Table 2-1 lists the hardware specifications.

Table 2-1 Hardware specifications

Item	Specifications	
Technical standard	<ul style="list-style-type: none"> • WAN: DC-HSPA+/HSPA+/HSPA/UMTS/EDGE/GPRS/GSM • WLAN: IEEE 802.11b/g/n 	
Operating frequency	DC-HSPA+/HSPA+/HSPA/UMTS: 2100/900 MHz	
	EDGE/GPRS/GSM: 1900/1800/900/850 MHz	
	WLAN: 2400–2483.5 MHz	
Internal memory	128 MB Flash, 64 MB Memory	
Maximum transmitter power	UMTS: 24 (+1/-3) dBm	
	WLAN	802.11b: 14 (+/-3) dBm
		802.11g: 11 (+/-3) dBm
		802.11n: 9 (+/-3) dBm
Receiver sensitivity	UMTS: Confirm to 3GPP Requirements	
	WLAN 802.11b	-76 dBm @ 11 Mbit/s
		-82 dBm @ 1 Mbit/s
	WLAN 802.11g: -65 dBm @ 54 Mbit/s	
	WLAN 802.11n: -64 dBm @ 65 Mbit/s	
WLAN speed	802.11b: Up to 11 Mbit/s	
	802.11g: Up to 54 Mbit/s	
	802.11n: Support MCS0–MCS7; Up to 72.2 Mbit/s.	
Maximum power consumption	3.5 W	
Charger	AC: 100–240 V (Input)	
	DC: 5 V, 2 A (Output)	
Supplying Power to Devices	rated output: 5 V, 1 A (up to 1.8 A)	

Item	Specifications
Battery	<ul style="list-style-type: none">• Type: Li (rechargeable and irremovable)• Capacity: 3.7 V, 5200 mAh• Maximum working time: 16 hours (depending on the network)• Maximum standby time: 500 hours (depending on the network)
External interfaces	USB interface: Micro USB
	SIM card interface: standard 6-pin SIM card interface
	External charging interface: Standard USB Type A
	Ethernet port: RJ45
Indicators	LED indicators: Ethernet, Signal, Wi-Fi, Battery, SMS, Power
Button	Power switch, Reset switch
Antenna	<ul style="list-style-type: none">• Built-in GSM/UMTS main diversity antenna• Built-in UMTS diversity antenna• Built-in WLAN antenna
Dimensions (W × D × H)	99.0 mm×66.3 mm×22.5 mm
Weight	about 170g (including the battery)
Temperature	<ul style="list-style-type: none">• Operating: 0°C to +35°C• Storage: -20°C to +60°C
Humidity	5% to 95% (non-condensing)

2.2.2 Software

Table 2-2 lists the software specifications.

Table 2-2 software specifications

Item	Description
SMS	<ul style="list-style-type: none"> • Writing/Sending/Receiving • Sending/Receiving extra-long messages • Storage: Up to 500 messages can be saved in the internal memory of the E5730s-2. • New message prompt
Network connection setup	<ul style="list-style-type: none"> • APN management: create, delete and edit. • Set up network connection
WLAN setup	<ul style="list-style-type: none"> • SSID broadcasting and hiding • Open system and shared key authentication • ASCII and HEX keys • 64/128-bit WEP encryption • 256-bit WPA-PSK and WPA2-PSK encryption • TKIP and AES encryption algorithm • TKIP and AES integrated encryption algorithm • Automatic adjustment of ratios • STA management • Turn off Wi-Fi automatically • WLAN MAC filter
Firewall setup	<ul style="list-style-type: none"> • Firewall Switch • LAN IP Filter • Virtual Server • DMZ Service • UPnP Service • WAN Ping block
NAT setup	<ul style="list-style-type: none"> • CONE NAT • Symmetric NAT • VPN passthrough
DHCP setup	<ul style="list-style-type: none"> • DHCP server enabling and disabling • Address pool of the DHCP server setup • DHCP lease time setup
Ethernet port	<ul style="list-style-type: none"> • Automatic identification of WAN or LAN connection • Automatic identification of WAN connection using PPPoE, dynamic IP address, or static IP address • MAC address cloning

Item	Description
Software installation	Automatic installation (PnP)
Other	Network connection settings: <ul style="list-style-type: none">• Automatic network selection and registration• Manual network selection and registration
	Network status display: signal, operator name, system mode, and so on.
	Selection of network connection types, for example: <ul style="list-style-type: none">• 3G Only• 2G Only• Auto
	PIN management: activate/deactivate PIN, PIN lock, changing PIN, unblocking by using the PUK.
System requirement	<ul style="list-style-type: none">• Windows XP SP3, Windows Vista SP1/SP2, Windows 7, Windows 8 (does not support Windows RT)• Mac OS X 10.6, 10.7 and 10.8 with latest upgrades• Your computer's hardware system should meet or exceed the recommended system requirements for the installed version of OS

3 Services and Applications

3.1 Data Service

3.1.1 Accessing the Internet Using a 3G or 2G Network

Functioning as a Wireless Modem

The E5730s-2 can be used as a wireless modem when the Wi-Fi is enabled. You can access the Internet service through setting up the wireless network connection with the E5730s-2.

A maximum of ten wireless users can access the E5730s-2 at the same time. You can set up the WLAN with the access point (AP) function.

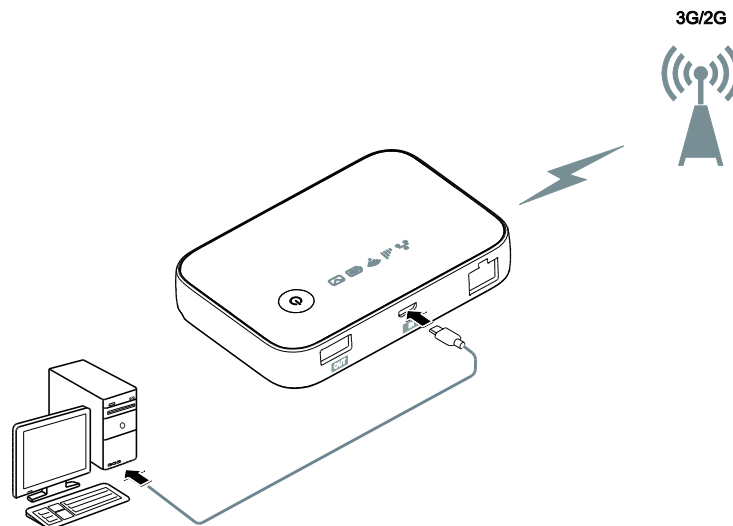
Figure 3-1 Connecting multiple devices through Wi-Fi



Functioning as a USB Modem

After you connect the E5730s-2 and PC with a USB data cable, the E5730s-2 driver is installed on the PC automatically and the shortcut of the Web page is displayed on the PC desktops. You can configure APN on the E5730s-2's Web page (or directly use the default settings) and set up a network connection. Then you can send or receive E-mail, access the Internet, and download files through wireless data channels.

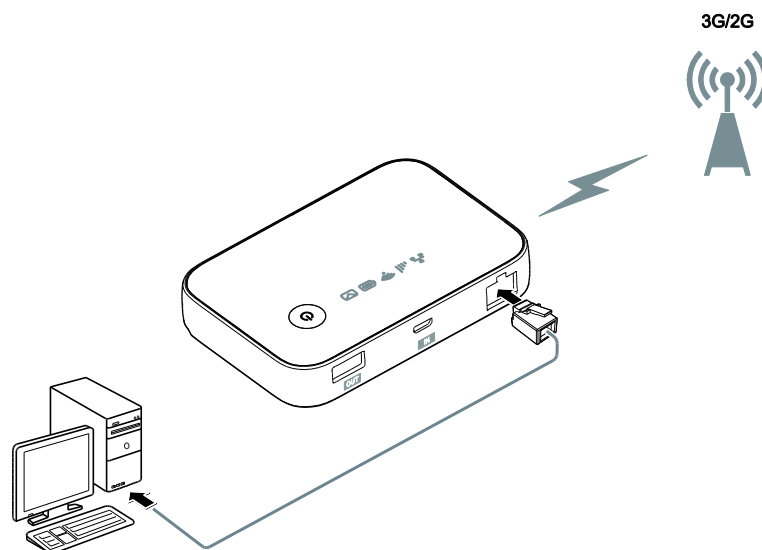
Figure 3-2 Connecting a single device through USB



Providing Network Connection Using the Ethernet Port

After you connect the E5730s-2 to a PC using a network cable to support automatic identification of the WAN/LAN port in access mode, you can configure the APN on the E5730s-2's Web page or use the default APN settings, and set up a network connection. You can then send or receive emails, browse Web pages, and download files from the PC using the E5730s-2's data connection.

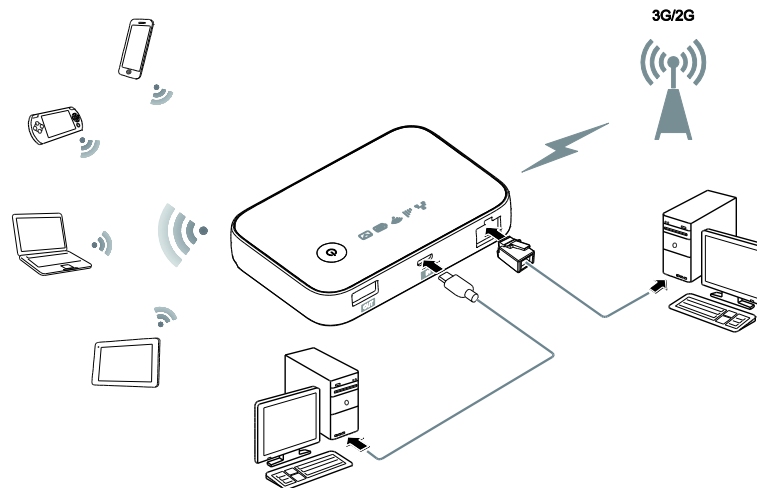
Figure 3-3 Connecting a single device through Ethernet port



Setting Up Connections Using Wi-Fi, USB, and the Ethernet Port Simultaneously

Multiple devices can connect to the E5730s-2 simultaneously using Wi-Fi, USB, and the Ethernet port.

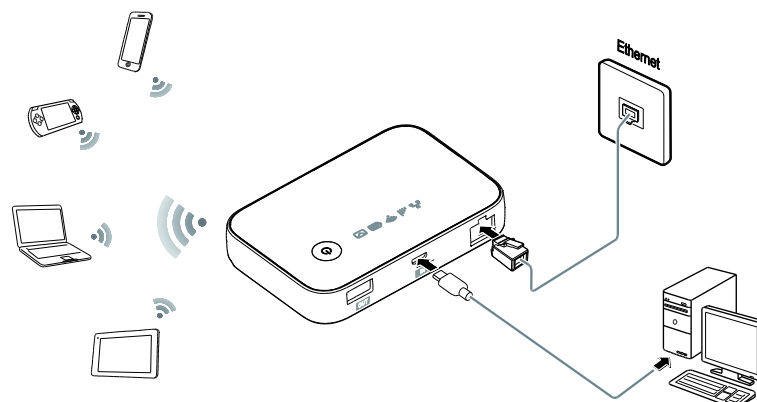
Figure 3-4 Connecting multiple devices through Wi-Fi, USB, and Ethernet port simultaneously



3.1.2 Accessing the Internet Using Ethernet

A network cable is connected with the Ethernet port of the E5730s-2, to support automatic identification of the WAN/LAN port in access mode, and automatic selection of accessing manners of ADSL domestic wideband, DHCP hotel wideband or static IP wideband. It is unnecessary to select the accessing manners after entering into the Web page manually. You can easily access the Internet using the Ethernet to save your 3G/2G network flow and fee.

Figure 3-5 Accessing the Internet using Ethernet



3.2 SMS

The E5730s-2 supports message writing/sending/receiving. You can manage messages through the Web page, such as an inbox, an outbox and a draft.

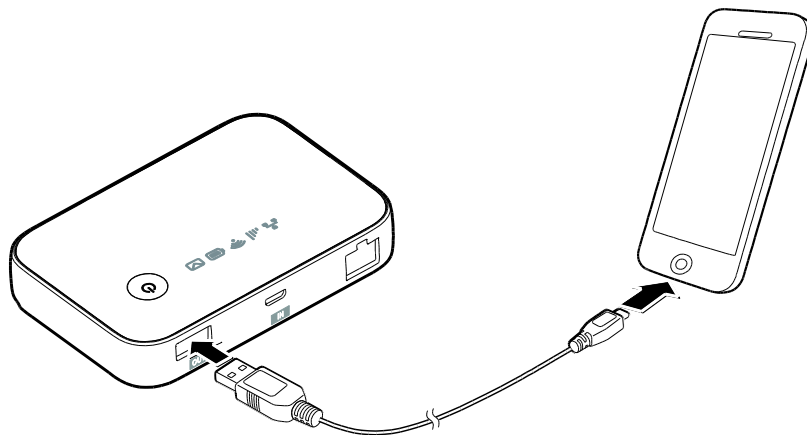
3.3 Supplying power to devices

The E5730s-2 can work as a portable power supply (rated output: 5V, 1A) for other devices, such as phones, tablets, music players, and Bluetooth headsets. You can charge those devices by simply connecting them to the E5730s-2 using a USB cable. The E5730s-2 supports plug and charge whether it is on or off.

Some devices can only be charged when the E5730s-2 is on, while others require the E5730s-2 to be off.

Note:

- The E5730s-2 cannot be used to charge other devices when it is being charged.
- If the E5730s-2 is overheating or its battery level is low, it will stop charging other devices to ensure its performance.

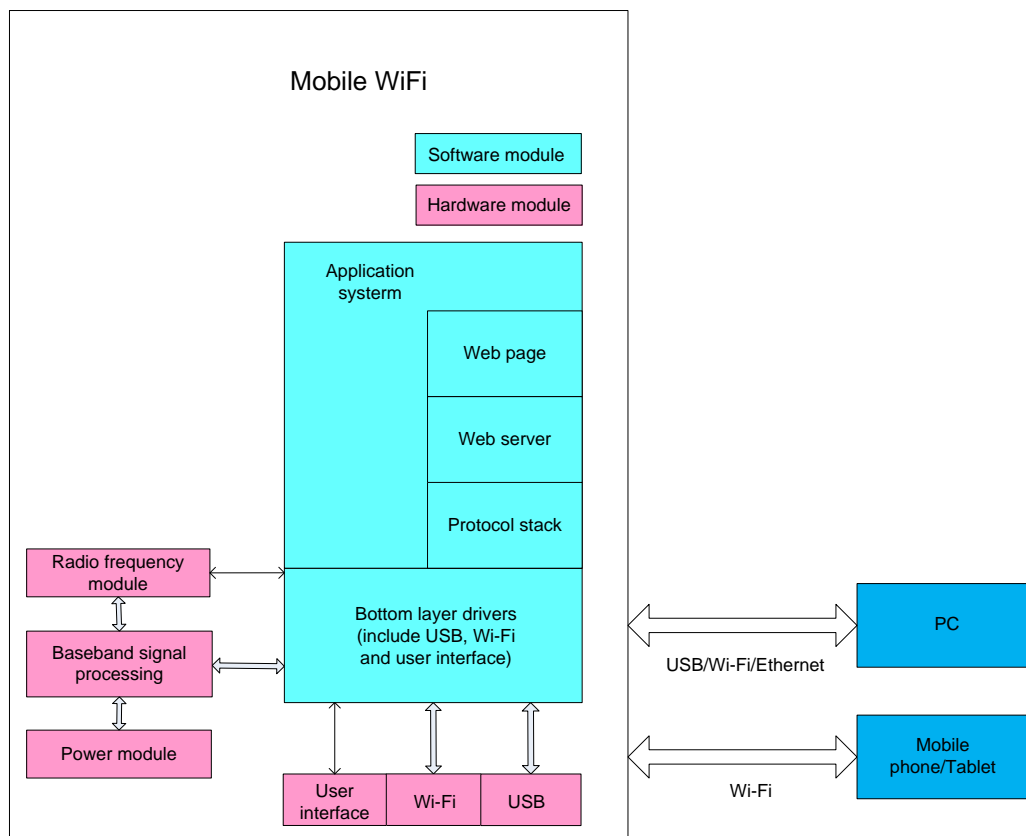


4 System Architecture

4.1 System Architecture

Figure 4-1 shows the system architecture.

Figure 4-1 System architecture



4.2 Functional Modules

1. **Radio frequency module:** It sends/receives radio signals and modulates/demodulates the radio frequency (RF) signals and baseband signals.
2. **Baseband signal processing:** It processes DC-HSPA+/HSPA+/HSPA/UMTS/EDGE/GPRS/GSM baseband digital signals, including:
 - Modulating/Demodulating DC-HSPA+/HSPA+/HSPA/UMTS baseband signals
 - Modulating/Demodulating EDGE/GPRS/GSM baseband signals
 - Encoding/Decoding DC-HSPA+/HSPA+/HSPA/UMTS channel
 - Encoding/Decoding EDGE/GPRS/GSM channel
3. **Bottom layer driver:** It drives peripherals, including USB device, Wi-Fi device, indicator, button and SIM card.
4. **Protocol stack system:** It processes protocols of DC-HSPA+/HSPA+/HSPA/UMTS/EDGE/GPRS/GSM and TCP/IP.
5. **Application system:** It provides management system, including SMS, PS domain service, Wi-Fi configuration, network service, Web service and Web page. The user can set management parameters by Web page.
6. **User interface:** It provides human-computer interaction, including indicator and button.

5 Packing List

This chapter describes the items contained in the package of the E5730s-2.

Table 5-1 lists the items contained in the package of the E5730s-2.

Table 5-1 Packing list of the E5730s-2

Item	Quantity	Remarks
Mobile WiFi	1	Standard
Rechargeable Battery (irremovable, 5200 mAh)	1	Standard
USB Cable	1	Standard
Quick Start	1	Standard
Safety Information	1	Standard
Charger	1	Optional
Warranty Card	1	Optional

A Acronyms and Abbreviations

2G	The Second Generation
3G	The Third Generation
AES	Advanced Encryption Standard
APN	access point name
ARPU	average revenue per user
ASCII	American Standard Code for Information Interchange
CS	circuit switched
DC-HSPA+	Dual Carrier High Speed Packet Access Plus
DHCP	Dynamic Host Configuration Protocol
DMZ	demilitarized zone
DNS	Domain Name Server
EDGE	Enhanced Data Rates for GSM Evolution
GPRS	General Packet Radio Service
GSM	Global System for Mobile Communications
HSPA+	High Speed Packet Access Plus
HSUPA	High Speed Uplink Packet Access
HSDPA	High Speed Downlink Packet Access
IEEE	Institute of Electrical and Electronics Engineers
IP	Internet Protocol
LAN	Local Area Network
LED	Light Emitting Diode
MAC	Medium Access Control
Modem	Modulator Demodulator

NAT	Network Address Translation
OS	Operating System
PC	personal computer
PIN	personal identification number
PPPoE	Point-to-Point Protocol over Ethernet
PS	packet switched
PUK	PIN unblocking key
SIM	subscriber identity module
SMS	short messaging service
SOHO	small office home office
SSID	Service Set Identifier
TKIP	Temporal Key Integrity Protocol
UMTS	Universal Mobile Telecommunications System
UPnP	Universal Plug and Play
USB	Universal Serial Bus
VPN	Virtual Private Network
WAN	wireless area network
WEP	wired equivalent privacy
Wi-Fi	Wireless Fidelity
WLAN	wireless local area network
WPA	Wi-Fi Protected Access
WPS	Wi-Fi Protected Setup