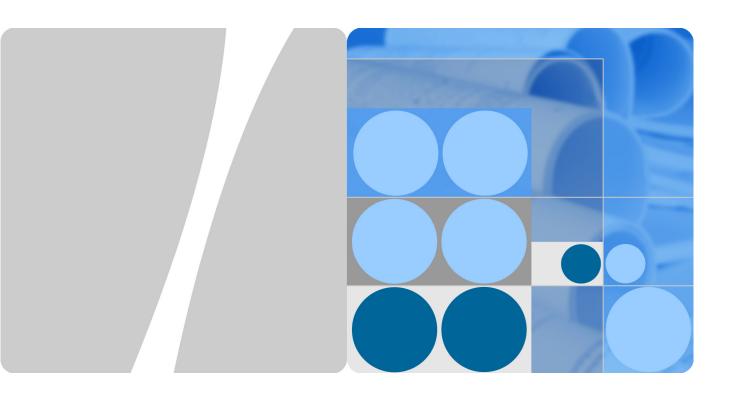
# **Product Description**



HUAWEI E5573s-320 Mobile WiFi V200R001

Issue 02

**Date** 2014-11-11





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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.	2014-10-17
02	Modify the picture of the E5573s-320.	2014-11-11
	Delete the power indicator.	
	<ul> <li>Modify the maximum transmitter power.</li> </ul>	



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# Overview

#### 1.1 Brief Introduction

HUAWEI E5573s-320 Mobile WiFi (hereinafter referred to as the E5573s-320) 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 E5573s-320 supports the following standards:

- Long Term Evolution (LTE) Frequency Division Duplex (FDD)
- 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)

The E5573s-320 provides the following services:

- LTE FDD packet data service
- DC-HSPA+ packet data service
- HSPA+/HSPA/UMTS packet data service
- EDGE/GPRS packet data service
- Short Message Service (SMS)

You can connect the E5573s-320 with the USB interface of a computer, or connect the E5573s-320 with the Wi-Fi. In the service area of the LTE FDD/LTE FDD/DC-HSPA+/HSPA+/HSPA/UMTS or EDGE/GPRS/GSM network, you can surf the Internet and send/receive messages/emails cordlessly. The E5573s-320 is fast, reliable, and easy to operate. Thus, mobile users can experience many new features and services with the E5573s-320. These features and services will enable a large number of users to use the E5573s-320 and the average revenue per user (ARPU) of operators will increase substantially.

Figure 1-1 shows the profile of the E5573s-320.



Figure 1-1 E5573s-320 profile



## 1.2 Optional Features

Optional features refer to features that are not supported by the standard version or are disabled by default. These features can be customized according to operator or customer requirements. The E5573s-320's optional feature is as follows:

- IPv6/IPv4 dual stack (optional)
- SIM lock (optional)
- Dual SSID (optional)



# **2** Features

#### 2.1 Main Features

The E5573s-320 mainly supports the following features:

- LTE FDD (DL) data service of up to 150 Mbit/s
- LTE FDD (UL) data service of up to 50 Mbit/s
- DC-HSPA+ (DL) data service of up to 43.2 Mbit/s
- HSPA+ (DL) data service of up to 21.6 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 LTE/UMTS/GSM
- SMS based on LTE/UMTS/GSM
- Built-in LTE/UMTS/GSM and WLAN high gain antenna
- Wi-Fi 2.4 GHz and 5 GHz bands
- Dynamic frequency selection (DFS) for 5 GHz Wi-Fi
- LTE/3G/Wi-Fi auto offload
- Support for HUAWEI Mobile WiFi App
- Press and Play
- IPv6/IPv4 dual stack (optional)
- Built-in DHCP Server, DNS RELAY and NAT
- Online software upgrade
- Traffic statistic
- Standard Micro USB interface
- 2D Barcode easy connection
- Windows Vista SP1/SP2, Windows 7, Windows 8, Windows 8.1 (does not support Windows RT), MAC OS X 10.7, 10.8 and 10.9 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	WAN: LTE FDD/DC-HSPA+/HSPA+/HSPA/UMTS/EDGE/GPRS/GSM			
	WLAN: IEEE 802.11a/b/g/n			
Operating	LTE FDD: B1/B3/B7/B8/B20/B5			
frequency	DC-HSPA+/HSPA+/HSPA/UMTS: B1/B5/B8			
	EDGE/GPRS/GSM: B2/B3/B5/B8			
	WLAN: 2.4 GHz, 5 GHz			
Internal memory	128 MB Fla	sh, 128 MB DDR SDRAM		
Maximum	LTE: Confo	rm to Power Class 3 Definition		
transmitter power	UMTS: Conform to Power Class 3 Definition			
	WLAN	802.11a: 10 dBm		
		802.11b: 13 dBm		
		802.11g: 11 dBm		
		802.11n: 10 dBm (2.4 GHz); 10 dBm (5 GHz)		
Receiver	LTE: Confir	m to 3GPP Requirements		
sensitivity	UMTS: Confirm to 3GPP Requirements			
	WLAN	802.11a: -65 dBm@54 Mbit/s		
		802.11b: -76 dBm@11 Mbit/s		
		802.11g: -65 dBm@54 Mbit/s		
		802.11n: -64 dBm@65 Mbit/s		
WLAN speed	802.11a։ Սր	o to 54 Mbit/s		
·	802.11b: Up to 11 Mbit/s			
	802.11g: Up to 54 Mbit/s			
	802.11n	HT20: Support MCS0–MCS7; Up to 72.2 Mbit/s. Support MCS8–MCS15; Up to 144.4 Mbit/s. HT40: Support MCS0–MCS7; Up to 150 Mbit/s. Support MCS8–MCS15; Up to 300 Mbit/s.		

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Item	Specifications
Maximum power consumption	3.5 W
Power supply	AC: 100–240 V
	DC: 5 V, 1 A
Battery	Type: Li (rechargeable)
	Capacity: 3.8 V, 1500 mAh
	Maximum working time: 6 hours (depending on the network)
	Maximum standby time: 300 hours (depending on the network)
External interfaces	Micro USB interface
interiaces	Standard 6-pin SIM card interface
Indicators	LED indicators: Signal, Battery
Key-press	Power switch, RESET switch
Antenna	Built-in LTE/UMTS/GSM main antenna
	Built-in LTE/UMTS diversity antenna
	Built-in WLAN antenna
Dimensions (W × D × H)	96.8 mm×58.0 mm×12.8 mm
Weight	about 75 g (including the battery)
Temperature	Operating: 0°C to +35°C
	Storage: -20℃ to +60℃
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> <li>Writing/Sending/Receiving</li> <li>Sending/Receiving extra-long messages</li> <li>Storage: Up to 500 messages can be saved in the internal memory of the E5573s-320.</li> </ul>
Network connection setup	APN management: create, delete and edit.     Set up network connection
WLAN setup	<ul> <li>SSID broadcasting and hiding</li> <li>None (Open), WEP, WPA2-PSK, and WPA/WPA2-PSK encryption</li> <li>Automatic adjustment of ratios</li> <li>Display STA status</li> <li>Turn off Wi-Fi automatically</li> <li>WLAN MAC filter</li> </ul>
Firewall setup	<ul> <li>Firewall Switch</li> <li>LAN IP Filter</li> <li>Virtual Server</li> <li>DMZ Service</li> <li>UPnP Service</li> </ul>
NAT setup	CONE NAT     Symmetric NAT     ALG
DHCP setup	<ul> <li>DHCP server enabling and disabling</li> <li>Address pool of the DHCP server setup</li> <li>DHCP lease time setup</li> </ul>
Software installation	Automatic installation
LTE/3G/Wi-Fi auto offload	Accessing to WAN via LTE/3G or Wi-Fi     Automatic offload between LTE/3G and Wi-Fi
IPv6/IPv4 dual stack (optional)	<ul> <li>DHCPv6/v4 server and client</li> <li>DNSv6/v4 server and client</li> <li>Display IPv6/v4 WAN address</li> </ul>



Item	Description
Other	Network connection settings:  • Automatic network selection and registration  • Manual network selection and registration
	Network status display: signal, operator name, system mode, and so on.
	LTE network switch: turn on/off LTE network
	PIN management: activate/deactivate PIN, PIN lock, changing PIN, unblocking by using the PUK.
System requirement	Windows Vista SP1/SP2, Windows 7, Windows 8, Windows 8.1 (does not support Windows RT)
	Mac OS X 10.7, 10.8 and 10.9 with latest upgrades
	<ul> <li>Your computer's hardware system should meet or exceed the recommended system requirements for the installed version of OS</li> </ul>



# 3 Services and Applications

#### 3.1 Data Service

#### 3.1.1 Wireless Modem

The E5573s-320 can be used as a wireless modem when the Wi-Fi is enabled. You can directly use the default settings (or configure APN on the E5573s-320 Web page) and set up a wireless network connection. Then you can access the Internet.

A maximum of ten wireless users can access the E5573s-320 at the same time. You can set up the WLAN with the access point (AP) function.

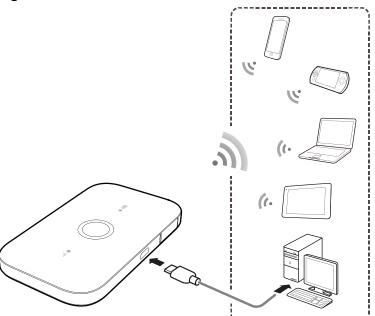


Figure 3-1 Multi-device access via Wi-Fi and USB at the same time

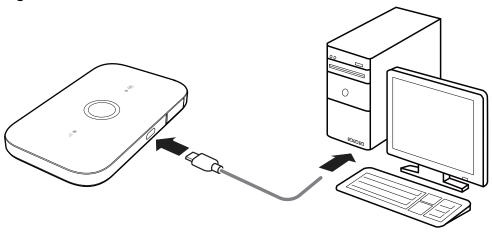
#### 3.1.2 USB Modem

After you connect the E5573s-320 and PC with a USB data cable, the Web page is displayed on the PC desktops automatically. You can directly use the default settings (or configure APN on the E5573s-320 Web page) and set up a network connection.



Then you can send or receive E-mail, access the network through wireless connection, and download files through wireless data channels.

Figure 3-2 One-device access via USB



#### 3.1.3 LTE/3G/Wi-Fi Auto Offload

The E5573s-320 allows you to access the Internet via LTE, 3G or Wi-Fi. When you are using the E5573s-320 in areas with a Wi-Fi hotspot, for example, an airport, a cafe, a hotel, or your home, the E5573s-320 switches to Wi-Fi connection automatically, saving your LTE/3G network traffic fees.

After the function is enabled, a maximum of nine wireless users can access the E5573s-320 at the same time.

Figure 3-3 LTE/3G/Wi-Fi auto offload



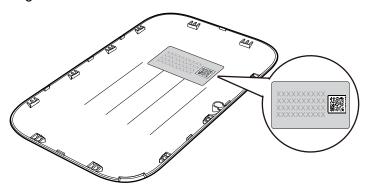
#### 3.2 **SMS**

The E5573s-320 supports message writing/sending/receiving. You can manage messages through the Web page, such as an inbox, an outbox and a draft.



# 3.3 Connecting an Android Device to the E5573s-320 Using a 2D Barcode

If you are using an Android device and has the HUAWEI Mobile WiFi App installed, you can quickly connect your device to the E5573s-320 to access the Internet by scanning a 2D Barcode on the E5573s-320 label.



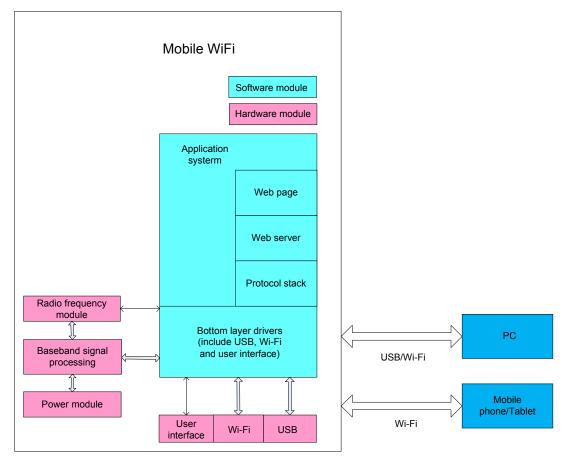


# 4 System Architecture

## 4.1 System Architecture

Figure 4-1 shows the system architecture.

Figure 4-1 System architecture





#### 4.2 Functional Modules

- Radio frequency module: It sends/receives radio signals and modulates/demodulates the radio frequency (RF) signals and baseband signals
- Baseband signal processing: It processes LTE FDD/DC-HSPA+/HSPA+/UMTS/EDGE/GPRS/GSM baseband digital signals, including:
  - Modulating/Demodulating LTE FDD/DC-HSPA+/HSPA+/UMTS/EDGE/GPRS/GSM baseband signals
  - Encoding/Decoding LTE FDD/DC-HSPA+/HSPA+/UMTS/EDGE/GPRS/GSM channel
- 3. **Bottom layer driver**: It drives peripherals, including a USB device, Wi-Fi devices, indicators, buttons and a SIM card.
- Protocol stack system: It processes protocols of LTE FDD/DC-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 indicators and buttons.



# 5 Packing List

This chapter describes the items contained in the package of the E5573s-320.

Table 5-1 lists the items contained in the package of the E5573s-320.

Table 5-1 Packing list of the E5573s-320

Item	Quantity	Remarks
Mobile WiFi	1	Standard
Rechargeable Battery (1500 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**

**3G** The Third Generation

AES Advanced Encryption Standard

ALG application level gateway

APN access point name

**ARPU** average revenue per user

**ASCII** American Standard Code for Information Interchange

**DFS** dynamic frequency selection

**DHCP** Dynamic Host Configuration Protocol

**DMZ** demilitarized zone

**DNS** Domain Name Server

**EDGE** Enhanced Data Rates for GSM Evolution

**FDD** frequency division duplex

**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

LTE Long Term Evolution

MAC Medium Access Control

Modem Modulator Demodulator

NAT Network Address Translation



**OS** Operating System

**PC** personal computer

**PIN** personal identification number

**PnP** Plug and Play

**PS** packet switched

PUK PIN unblocking key

**SIM** subscriber identity module

**SMS** short messaging service

**SOHO** small office home office

**SSID** Service Set Identifier

**TFT** Thin Film Transistor

**TKIP** Temporal Key Integrity Protocol

**UMTS** Universal Mobile Telecommunications System

**UPnP** Universal Plug and Play

**USB** Universal Serial Bus

**WAN** wireless area network

**WEP** wired equivalent privacy

Wi-Fi Wireless Fidelity

**WLAN** wireless local area network

WPA Wi-Fi Protected Access