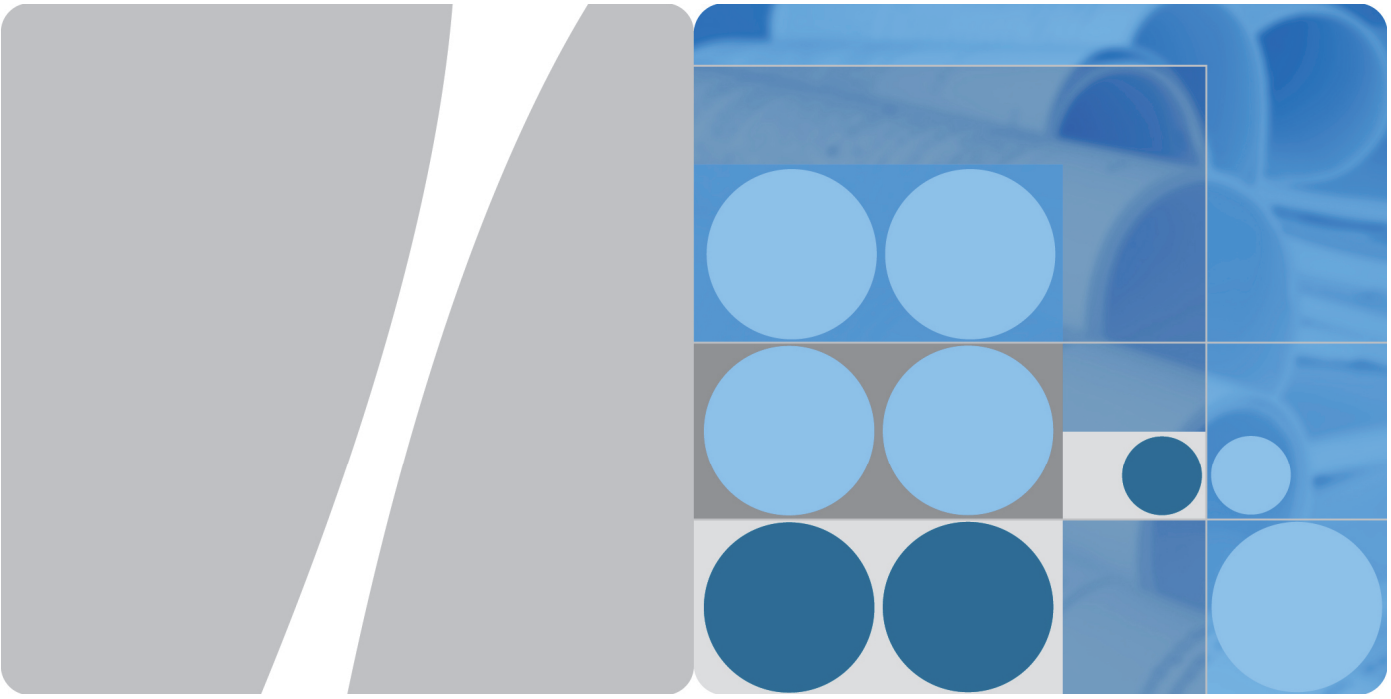
Product Description



HUAWEI E5577-320 Mobile WiFi
V100R001

Issue 01

Date 2020-5-19

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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.	2020-5-19

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1 Overview

1.1 Brief Introduction

HUAWEI E5577-320 Mobile WiFi (hereinafter referred to as the E5577-320) 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 E5577-320 supports the following standards:

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

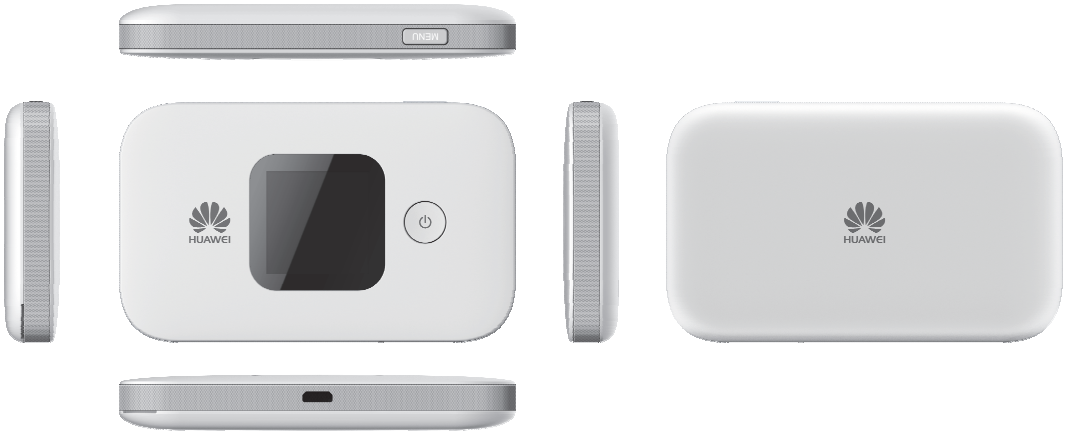
The E5577-320 provides the following services:

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

You can connect the E5577-320 with the USB interface of a computer, or connect the E5577-320 with the Wi-Fi. In the service area of the LTE FDD/LTE TDD/ DC-HSPA+/HSPA+/HSPA/UMTS network, you can surf the Internet and send/receive messages/emails cordlessly. The E5577-320 is fast, reliable, and easy to operate. Thus, mobile users can experience many new features and services with the E5577-320. These features and services will enable a large number of users to use the E5577-320 and the average revenue per user (ARPU) of operators will increase substantially.

Figure 1-1 shows the profile of the E5577-320.

Figure 1-1 E5577-320 profile



1.2 Optional Features

Optional features refer to features that are not supported by the standard version. These features can be customized according to operator or customer requirements. The E5577-320's optional feature is as follows:

- SIM lock (optional)

2 Features

2.1 Main Features

The E5577-320 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
- LTE TDD (DL) data service of up to 112 Mbit/s
- LTE TDD (UL) data service of up to 10 Mbit/s
- DC-HSPA+ (DL) data service of up to 42 Mbit/s
- HSPA+ (DL) data service of up to 21 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
- PS domain data service based on LTE/UMTS
- SMS based on LTE/UMTS
- Built-in LTE/UMTS and WLAN high gain antenna
- Wi-Fi 2.4 GHz bands
- LTE/3G/Wi-Fi auto offload
- Menu-style LCD UI
- Support for HUAWEI AI Life APP
- Press and Play
- IPv4v6 dual stack
- Built-in DHCP Server, DNS RELAY and NAT
- Online software upgrade
- Traffic statistic
- WPS
- 1.45" LCD screen
- Standard Micro USB interface
- Windows 7, Windows 8, Windows 8.1, Windows 10 (does not support Windows RT), MAC OS X 10.12, 10.13,10.14 and 10.15

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/LTE TDD /DC-HSPA+/HSPA+/HSPA/UMTS	
	WLAN: IEEE 802.11b/g/n	
Operating frequency	LTE FDD: B1/B3/B7/B8/B20/B28 LTE TDD: B38/B40/B41(2535~2675MHz)	
	DC-HSPA+/HSPA+/HSPA/UMTS: Band1(2100MHz)/Band8(900MHz)	
	WLAN: 2.4 GHz (AP: CH5~CH11, STA: CH5~ CH13)	
Internal memory	RAM: 128MB DDR ROM: 128MB NAND Flash	
Maximum transmitter power	LTE: Conform to Power Class 3 Definition	
	UMTS: Conform to Power Class 3 Definition	
	WLAN	802.11b: 14 dBm
		802.11g: 12 dBm
		802.11n: 11 dBm (20MHz)/11 dBm (40MHz)
Receiver sensitivity	LTE: Conform to 3GPP Requirements	
	UMTS: Conform to 3GPP Requirements	
	WLAN	802.11b: -76dBm@11Mbps/-82dBm@1Mbps
		802.11g: -65dBm@54Mbit/s
		802.11n: -64dBm@65Mbit/s
WLAN MIMO	2*2 MIMO	
WLAN speed	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.

Item	Specifications
Maximum power consumption	3.5 W
Power supply	AC: 100~240 V
	DC: 5 V, 1 A
Battery	Type: Li-ion (rechargeable)
	Capacity: 3.8 V, 1500mAh
	Maximum working time: 6 hours (depending on the network)
	Maximum standby time: 350 hours (depending on the network)
External interfaces	Micro USB interface
	Standard SIM card (2FF) interface
Screen	1.45" LCD
Key-press	Power switch, MENU switch, RESET switch
Antenna	Built-in LTE/UMTS antenna
	Built-in WLAN antenna
Dimensions (W × D × H)	96.8 x 58 x 13.5mm
Weight	about 81g (including the battery)
Temperature	Operating: 0°C to 35°C
	Storage: -20°C to +60°C
Humidity	0% to 95% (non-condensing)

2.2.2 Software

Table 2-2 lists the software specifications.

Table 2-2 software specifications

Item	Description
SMS	• Writing/Sending/Receiving • Sending/Receiving extra-long messages • Storage: Up to 500 messages can be saved in the internal memory of the E5577-320.
Network connection setup	• APN management: create, delete and edit. • Set up network connection
Maximum number of Wi-Fi users connected at the same time	• A maximum of 16 wireless users can access the E5577-320 at the same time. You can set up the WLAN with the access point (AP) function.
WLAN setup	• SSID broadcasting and hiding • None (Open), WEP, WPA2-PSK, and WPA/WPA2-PSK encryption • Automatic adjustment of ratios • Display STA status • Turn off Wi-Fi automatically • WLAN MAC filter
Firewall setup	• Firewall Switch • LAN IP Filter • Virtual Server • DMZ Service • UPnP Service
NAT setup	• CONE NAT • Symmetric NAT • ALG
DHCP setup	• DHCP server enabling and disabling • Address pool of the DHCP server setup • DHCP lease time setup
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
IPv4v6 dual stack	• DHCPv4v6 server and client • DNSv4v6 server and client • Display IPv4v6 WAN address

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 7, Windows 8, Windows 8.1, Windows 10 (does not support Windows RT), MAC OS X 10.12, 10.13,10.14 and 10.15 • Your computer’s hardware system should meet or exceed the recommended system requirements for the installed version of OS

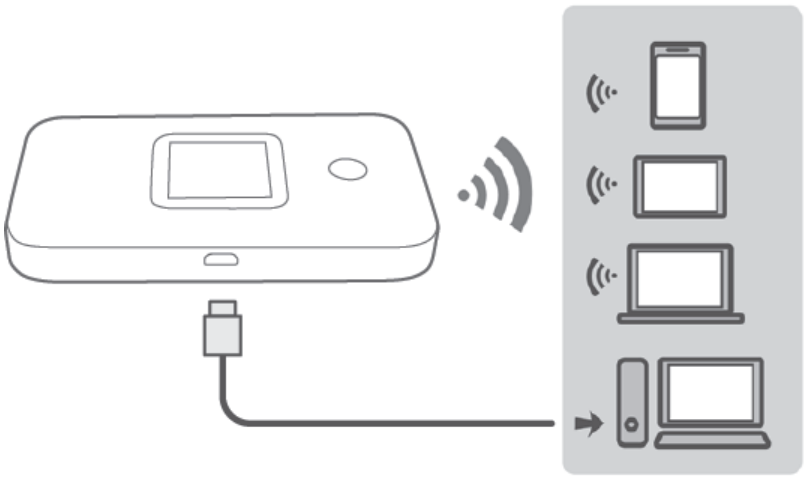
3 Services and Applications

3.1 Data Service

3.1.1 Wireless Modem

The E5577-320 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 E5577-320 Web page) and set up a wireless network connection. Then you can access the Internet.

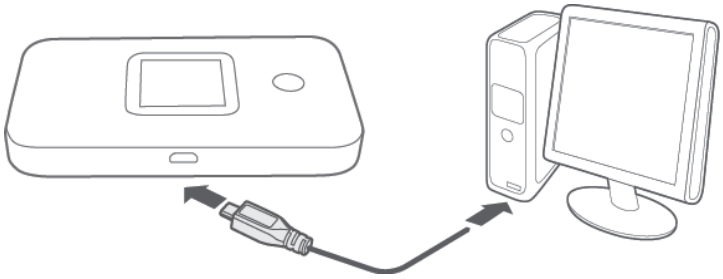
Figure 3-1 Multi-device access via Wi-Fi and USB at the same time



3.1.2 USB Modem

After you connect the E5577-320 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 E5577-320 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.

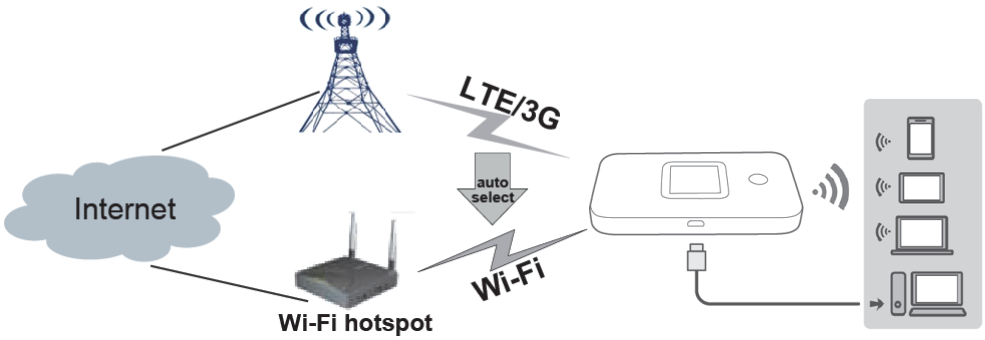
Figure 3-2 One-device access via USB



3.1.3 LTE/3G/Wi-Fi Auto Offload

The E5577-320 allows you to access the Internet via LTE, 3G or Wi-Fi. When you are using the E5577-320 in areas with a Wi-Fi hotspot, for example, an airport, a cafe, a hotel, or your home, the E5577-320 switches to Wi-Fi connection automatically, saving your LTE/3G network traffic fees.

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



3.2 SMS

The E5577-320 supports message writing/sending/receiving. You can manage messages through the Web page.

3.3 Menu-Style LCD UI

The E5577-320 provides a menu-style LCD UI with support for multiple languages. Press the menu button to display the menus, and then use the menu and power buttons to select or confirm an option. You can browse the information on the LCD or configure settings. For example, you can:

- Turn on or off the automatic switchover between LTE/3G and Wi-Fi Internet access modes.
- Turn on or off the WPS function.

Figure 3-4 shows the menu-style LCD UI. This figure is for your reference only. The actual UI may vary.

Figure 3-4 Menu-style LCD UI

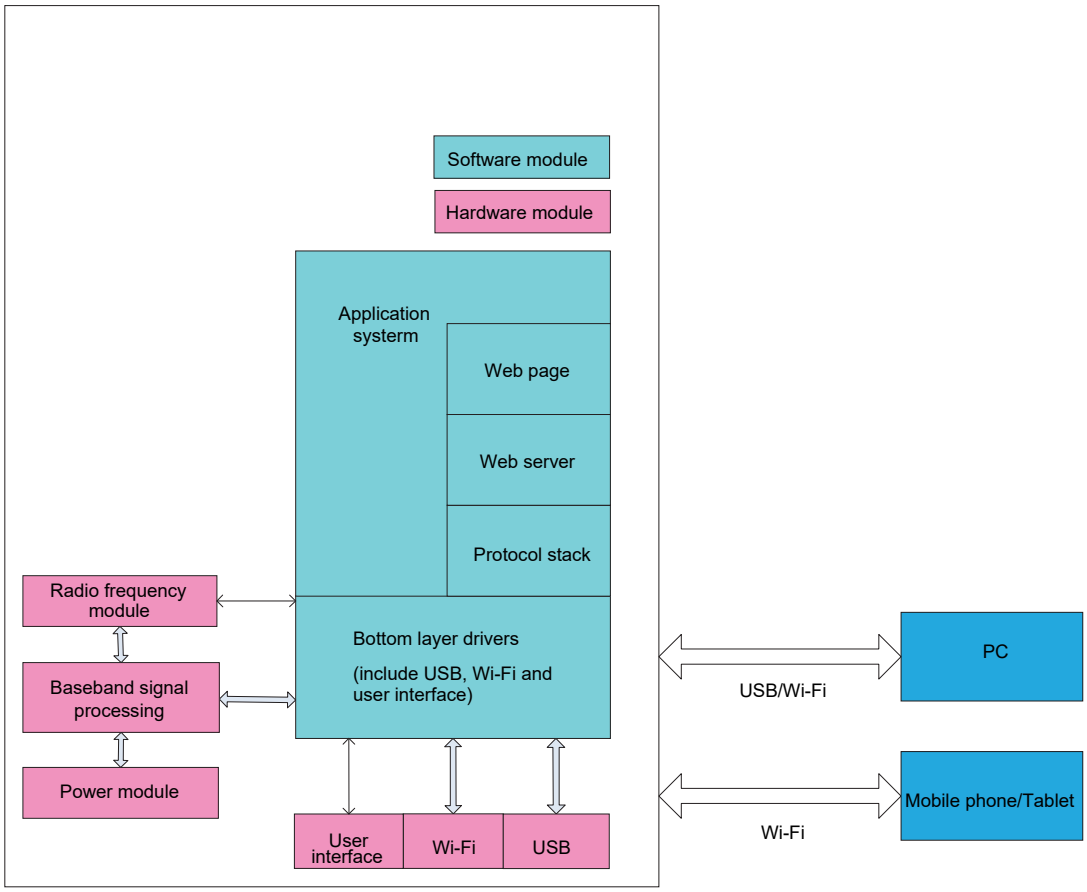


4 System Architecture

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 LTE FDD/LTE TDD /DC-HSPA+/HSPA+/UMTS baseband digital signals, including:
   - Modulating/Demodulating LTE FDD/LTE TDD /DC-HSPA+/HSPA+/UMTS baseband signals
   - Encoding/Decoding LTE FDD/LTE TDD /DC-HSPA+/HSPA+/UMTS channel
3. **Bottom layer driver**: It drives peripherals, including a USB device, Wi-Fi devices, a screen, buttons and a SIM card.
4. **Protocol stack system**: It processes protocols of LTE FDD/LTE TDD/ DC-HSPA+/HSPA+/UMTS 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 a screen and buttons.

5 Packing List

This chapter describes the items contained in the package of the E5577-320.

Table 5-1 lists the items contained in the package of the E5577-320.

Table 5-1 Packing list of the E5577-320

Item	Quantity	Remarks
Mobile WiFi	1	Standard
Rechargeable Battery (1500mAh)	1	Standard
USB Cable	1	Standard
Quick Start(add Safety Information)	1	Standard
Charger	1	Optional
Warranty Card	1	Optional

6 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
DHCP	Dynamic Host Configuration Protocol
DMZ	demilitarized zone
DNS	Domain Name Server
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
LCD	Liquid Crystal Display
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
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