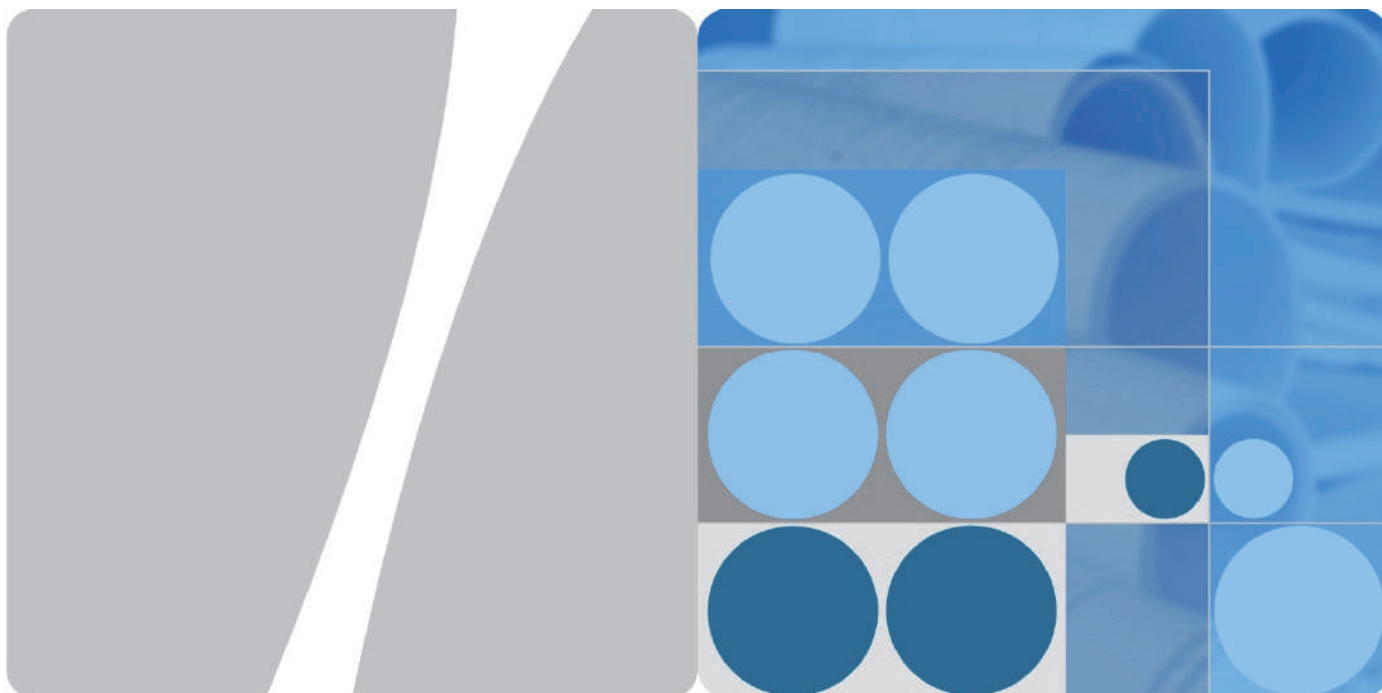


Product Description



HUAWEI E8372 LTE Wingle
V100R001

Issue 01
Date 2020-04-10

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About This Document

Summary

This document provides information about the major functions, supported services, and technical references of HUAWEI E8372h-320 LTE Wingle (hereinafter referred to as the E8372h-320).

The following table lists the contents of this document.

| Chapter | Describes |
|------------------------------|--|
| 1 Overview | The supported network modes, basic services and functions, and the appearance of the E8372h-320. |
| 2 Features | The supported features and technical specifications of the E8372h-320. |
| 3 Services and Applications | The services and applications of the E8372h-320. |
| 4 Technical Reference | The technical references of the E8372h-320. |
| 5 Packing List | The items contained in the package of the E8372h-320. |
| 6 Acronyms and Abbreviations | The acronyms and abbreviations mentioned in this document. |

History

| Issue | Details | Date |
|-------|----------------|------------|
| 01 | First release. | 2020-04-10 |

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1 Overview

HUAWEI E8372h-320 LTE Wingle (hereinafter referred to as the E8372h-320) is a high-speed packet access product. E8372h-320 supports 16 Wi-Fi and 1 USB users to connect to the wireless network at the same time. It is a multi-mode wireless terminal for SOHO (Small Office and Home Office) and business professionals, in order to meet the requirement from different operators.

The E8372h-320 supports the following standards:

- LTE FDD (Frequency Division Duplex)
- DC-HSPA+ (Dual Cell High-speed Packet Access Plus)
- HSPA+ (High Speed Packet Access Plus)
- HSUPA (High Speed Uplink Packet Access)
- HSDPA (High Speed Downlink Packet Access)
- UMTS (Universal Mobile Telecommunications System)
- WCDMA (Wideband Code Division Multiple Access)
- WLAN(Wireless Local Area Network as WiFi AP)

The E8372h-320 provides the following services:

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

You can connect the E8372h-320 with the USB interface of a computer, or with the power adapter/in-car charger also by USB interface.

In the service area of the LTE/DC-HSPA+/HSPA+/HSPA/UMTS network, you can surf the Internet and send/receive messages/emails cordlessly. The E8372h-320 is fast, reliable, and easy to operate. Thus, mobile users can experience many new features and services with the E8372h-320. These features and services will enable a large number of users to use the E8372h-320.

Figure 1-1 shows the profile of the E8372h-320.

Figure 1-1 E8372h-320 profile



2 Features

2.1 Main Features

The E8372h-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+ downlink data service of up to 42 Mbit/s
- HSPA+ downlink data service of up to 21 Mbit/s
- HSDPA data service of up to 14.4 Mbit/s
- HSUPA data service of up to 5.76 Mbit/s
- WCDMA data service of up to 384 kbit/s
- LTE/WCDMA Short Message Service (SMS).
- Support Wi-Fi 2.4GHz;
- Wi-Fi AP, supports up to 16 Wi-Fi and 1 USB users;
- SIM/USIM;
- Receive diversity;
- RNDIS;
- HUAWEI AI Life APP;
- Plug and Play;
- Inner antenna;
- Traffic statistic;
- USB 2.0 HighSpeed;
- manage and settings your E8372h-320 via WebUI
- Windows 7, Windows 8, Windows 8.1, Win10. 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 | LTE / DC-HSPA+/HSPA+/HSPA/UMTS | |
| | WLAN: 802.11 b/g/n | |
| Operating frequency | LTE:B1/B3/B5/B7/B8/B20/B28 | |
| | DC-HSPA+/HSPA+/HSPA/UMTS: B1/B5/B8 | |
| | WLAN: 2.4GHz(CH1-CH13) | |
| Memory capability | NAND FLASH 128M | |
| Maximum transmitter power | LTE: +23dBm (Power Class 3) | |
| | WCDMA/HSPA+: +24dBm (Power Class 3) | |
| | WLAN (dBm) : | |
| | 11b: 14 11g: 12 11n: 10 | |
| Static receiver sensitivity | LTE: Compliant with 3GPP TS 36.101(R9) | |
| | WCDMA/HSPA/HSPA+: Compliant with 3GPP TS 25.101(R9) | |
| 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. HT40: Support MCS0–MCS7; Up to 150 Mbit/s. |
| | Wi-Fi MIMO: 1*1 | |
| External interfaces | One USB 2.0 High Speed (Type A) | |
| | One mini-SIM card interface | |
| Key | Reset key | |
| LED | Indicates the status of the E8372h-320 | |

| Item | Specifications |
|-------------|--|
| Size | 94 mm x 30 mm x 14.6 mm |
| Weight | < 35g |
| Temperature | <ul style="list-style-type: none"> • Operating: -10°C to +40°C • Storage: -20°C to +70°C |
| Humidity | 5% to 95% |

2.2.2 Software Specifications

Table 2-2 lists the dashboard specifications.

Table 2-2 Software specifications

| Item | Description |
|--------------------------|---|
| SMS | <ul style="list-style-type: none"> • Writing/Sending/Receiving • Sending/Receiving extra-long messages • Group sending • Storage • Sorting |
| Network connection setup | <ul style="list-style-type: none"> • Profile management (Create/Delete/Edit) • Set up network connection |
| WLAN setup | <ul style="list-style-type: none"> • SSID broadcast and conceal • Open System • Support ASCII or HEX password • 64/128bits WEP Encryption • WPA2-PSK, AES Encryption • WPA/WPA2, TKIP/AES mixed Encryption Algorithm • auto speed adjustment • STA management • MAC Filter |
| Firewall setup | <ul style="list-style-type: none"> • supporting firewall activation and deactivation • supporting LAN IP address filtering • supporting DMZ • supporting UPnP • supporting WAN Ping block |

| Item | Description |
|---|---|
| DHCP setup | <ul style="list-style-type: none"> • supporting DHCP Server deactivation and activation • supporting DHCP Server address configuration • supporting DHCP lease configuration |
| Software installation | Automatic installation for Plug and Play |
| Other | Network connection settings |
| | Network status display: signal, operator name, system mode, and so on. |
| | Selection of network connection types |
| | PIN management: activate/deactivate PIN, PIN lock, changing PIN, unblocking by using the PUK. |
| System requirement | <ul style="list-style-type: none"> • Windows 7, Windows 8, Windows 8.1, Win10. 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 • Display resolution: 800 × 600 or above |
| Notes: PIN = personal identification number PUK = PIN unblocking key | |

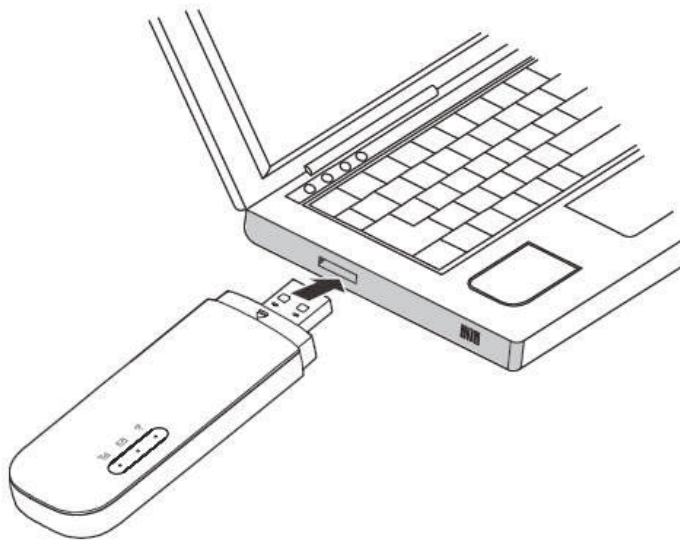
3 Services and Applications

3.1 Packet Data Service

3.1.1 USB Modem

After you connect the E8372h-320 to a PC with the USB interface, you can send or receive E-mail, access the network through wireless connection, and download files through wireless data channels.

Figure 3-1 shows the device connecting to the network by USB.



3.1.2 Wireless Router (Wi-Fi AP)

As Wi-Fi AP, after the device accesses the LTE network, user can enjoy the wireless network through the connection between Wi-Fi and E8372h-320.

E8372h-320 supports up to 16 and 1 USB users to connect to the wireless network at the same time so as to achieve the wireless LAN establishment.

Figure 3-2 shows multi-devices access the wireless work through Wi-Fi and USB.



4 Technical Reference

4.1 Layer 1 Specifications (Physical)

- Examples of Channel Coding and Multiplexing TR 25.944
- Physical Layer–General Description TS 25.201
- Physical Channels and Mapping of Transport Channels onto Physical Channels (FDD) TS 25.211
- Multiplexing and Channel Coding (FDD) TS 25.212
- Spreading and Modulation (FDD) TS 25.213
- Physical Layer–Procedures (FDD) TS 25.214
- Physical Layer–Measurements (FDD) TS 25.215
- 3GPP HSDPA overall description 25.308
- 3GPP UE radio access capabilities 25.306
- LTE Physical Layer - General Description 36.201
- E-UTRAN Physical Channels and Modulation 36.211
- E-UTRAN Multiplexing and channel coding 36.212
- E-UTRAN Physical layer procedures 36.213
- E-UTRAN Physical layer – Measurements 36.214
- E-UTRAN Services provided by the physical layer 36.302

4.2 Layer 2 Specifications (MAC/RLC)

- MAC Protocol Specification TS 25.321
- RLC Protocol Specification TS 25.322
- E-UTRAN Layer 2 – Measurements 36.314
- E-UTRAN Medium Access Control (MAC) protocol specification 36.321
- E-UTRAN Radio Link Control (RLC) protocol specification 36.322
- E-UTRAN Packet Data Convergence Protocol (PDCP) specification 36.323

4.3 Layer 3 Specifications (RRC)

- UE Interlayer Procedures in Connected Mode TS 25.303
- UE Procedures in Idle Mode TS 25.304
- RRC Protocol Specification TS 25.331
- E-UTRAN Radio Resource Control (RRC) Protocol specification 36.331
- E-UTRAN User Equipment (UE) procedures in idle mode 36.304

4.4 Layer 3 NAS/Core Network (MM/CM)

- Architectural Requirements for Release 1999 TS 23.121
- NAS Functions Related to Mobile Station (MS) in Idle Mode TS 23.122
- Mobile Radio Interface Signaling Layer 3 – General Aspects TS 24.007
- Mobile Radio Interface Layer 3 Specification – Core Network TS 24.008
- PP SMS Support on Mobile Radio Interface TS24.011
- Non-Access-Stratum (NAS) protocol for Evolved Packet System (EPS) 24.301

4.5 General Specifications

- UE Capability Requirements TR 21.904
- UE Radio Access Capabilities TR 25.926
- Vocabulary TR 25.990
- Radio Interface Protocol Architecture TS 25.301
- Services Provided by the Physical Layer TS 25.302
- Synchronization in UTRAN Stage 2 TS 25.402

4.6 Performance/Test Specifications

- UE Radio Transmission and Reception (FDD) TS 25.101
- Common Test Environments for User Equipment (UE) TS 34.108
- Special Conformance Testing Functions TS 34.109
- Terminal Conformance Specification TS 34.121
- User Equipment (UE) Conformance Specification; Part 1: Protocol Conformance TS 34.123-1
- User Equipment (UE) Conformance Specification; Part 2: Protocol Conformance TS 34.123-2
- Terminal Conformance Specification, Radio Transmission and Reception (FDD) TS 34.121
- User Equipment (UE) Conformance Specification; Part 1: Protocol Conformance TS 34.123-1
- S48 User Equipment (UE) Conformance Specification; Part 2: Implementation Conformance Statement (ICS) Specification TS 34.123-2

4.7 USIM Specifications

- SIM and IC Card Requirements TS 21.111
- 3rd Gen. Partnership Proj Tech. Spec. Group Terminals; SIM App. Toolkit (USAT) TS 31.111

5 Packing List

This chapter describes the items contained in the package of the E8372h-320.

Table 5-1 lists the items contained in the package of the E8372h-320.

Table 5-1 Packing list of the E8372h-320

| Item | Quantity | Remarks |
|-------------------------|----------|----------|
| HUAWEI E8372 LTE Wingle | 1 | Standard |
| Quick start | 1 | Standard |
| USB cable | 1 | Optional |
| Strap | 1 | Optional |

6 Acronyms and Abbreviations

Numerics

| | |
|-----------|------------------------------------|
| 3G | The Third Generation |
| 3GPP | 3rd Generation Partnership Project |

A

| | |
|------|--------------------------|
| APN | Access Point Name |
| ARPU | Average Revenue Per User |

B

| | |
|-----|------------------------|
| BSS | Base Station Subsystem |
|-----|------------------------|

C

| | |
|-----------|-------------------------|
| CM | Connection Management |
| CS domain | Circuit Switched Domain |

E

| | |
|-------|---------------------------------------|
| EDGE | Enhanced Data Rates for GSM Evolution |
| EGPRS | Enhanced GPRS |

F

| | |
|-----|---------------------------|
| FDD | Frequency Division Duplex |
|-----|---------------------------|

G

| | |
|-------|---|
| GERAN | GSM/EDGE Radio Access Network |
| GPRS | General Packet Radio Service |
| GSM | Global System for Mobile Communications |

H

| | |
|-------|-----------------------------------|
| HSUPA | High Speed Uplink Packet Access |
| HSDPA | High Speed Downlink Packet Access |

I

| | |
|----|--------------------|
| IC | Integrated Circuit |
|----|--------------------|

L

| | |
|-----------|---|
| LED | Light Emitting Diode |
| LTE | Long Term Evolution |
| M | |
| MAC | Medium Access Control |
| MexE | Mobile Execution Environment |
| MM | Mobility Management |
| Modem | Modulator Demodulator |
| MS | Mobile Station |
| MSC | Mobile Switching Center |
| N | |
| NAS | Non-Access Stratum |
| O | |
| OS | Operating System |
| P | |
| PIN | Personal Identification Number |
| PnP | Plug and Play |
| PP | Point-to-Point |
| PS domain | Packet Switched Domain |
| PUK | PIN Unlocking Key |
| R | |
| RF | Radio Frequency |
| RLC | Radio Link Control |
| RRC | Radio Resource Control |
| S | |
| SGSN | Serving GPRS Support Node |
| SIM | Subscriber Identity Module |
| SMS | Short Message Service |
| SNDCP | Subnetwork Dependent Convergence Protocol |
| SOHO | Small Office and Home Office |
| T | |
| TDD | Time Division Duplexing |
| TR | Technical Report |
| TS | Technical Specification |

U

| | |
|-------|--|
| UE | User Equipment |
| UMTS | Universal Mobile Telecommunications System |
| USAT | USIM Application Toolkit |
| USB | Universal Serial Bus |
| USIM | UMTS Subscriber Identity Module |
| USSD | Unstructured Supplementary Service Data |
| UTRAN | UMTS Terrestrial Radio Access Network |

W

| | |
|-------|--|
| WCDMA | Wideband Code Division Multiple Access |
|-------|--|