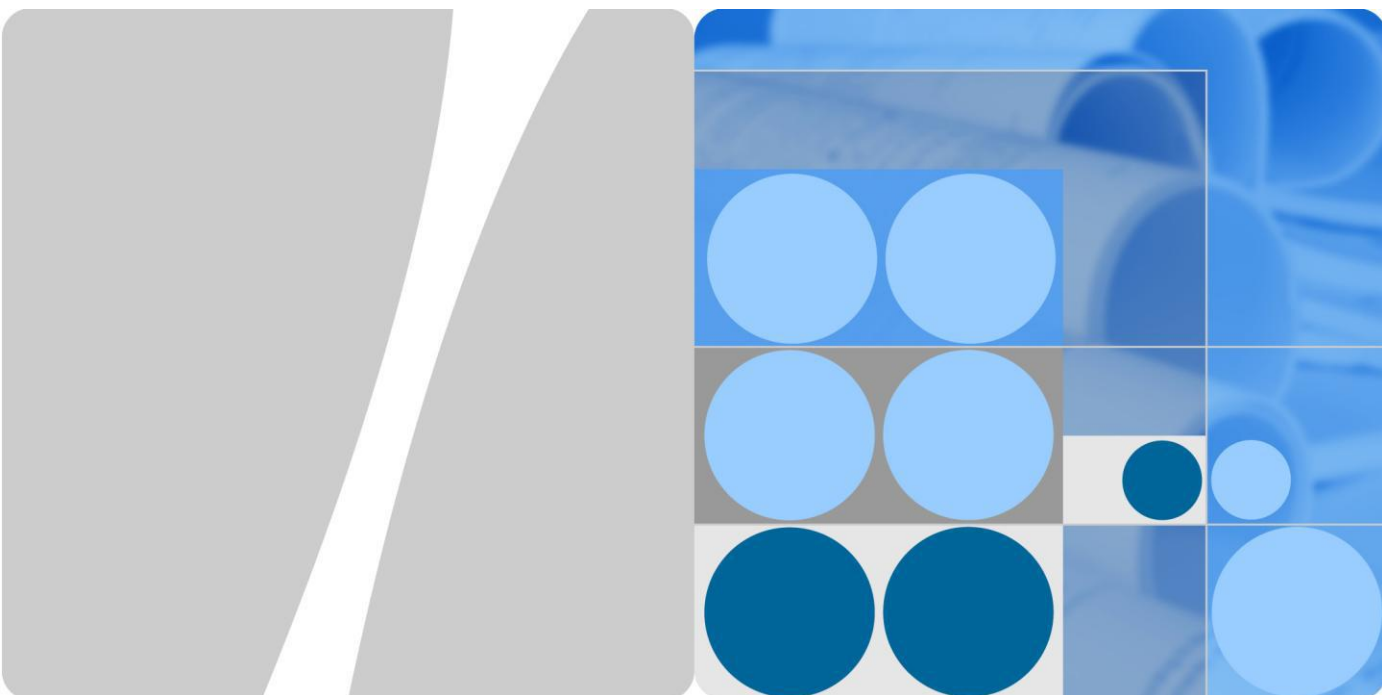


# Product Description



HUAWEI E5330 Mobile WiFi  
V200R001

**Issue** 03  
**Date** 2014-01-10

HUAWEI TECHNOLOGIES CO., LTD.



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# About This Document

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## 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.	2013-12-04
02	Change the product name from "E5330Bs" to "E5330B".	2013-12-23
03	Change the product name from "E5330B" to "E5330".	2014-01-10

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# 1 Overview

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## 1.1 Brief Introduction

HUAWEI E5330 Mobile WiFi (hereinafter referred to as the E5330) 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 E5330 supports the following standards:

- 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 E5330 provides the following services:

- 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 E5330 with the USB interface of a computer, or connect the E5330 with the Wi-Fi. In the service area of the HSPA+/HSPA/UMTS/EDGE/GPRS/GSM network, you can surf the Internet and send/receive messages/emails cordlessly. The E5330 is fast, reliable, and easy to operate. Thus, mobile users can experience many new features and services with the E5330. These features and services will enable a large number of users to use the E5330 and the average revenue per user (ARPU) of operators will increase substantially

## 1.2 Branch Types

The E5330 has three branch types, E5330As-2, E5330Bs-2 and E5330Bs-6. The following sections describe only the specifications of the E5330Bs-2 and E5330Bs-6.

Figure 1-1 shows the appearance of the E5330.

**Figure 1-1** Appearance

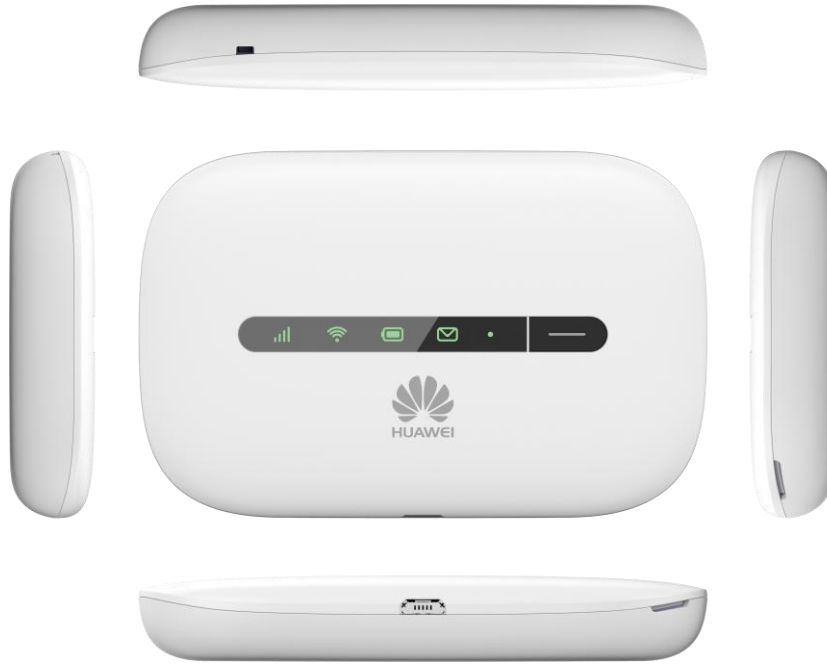


Table 1-1 lists the branch type E5330Bs-2.

**Table 1-1** Branch type E5330Bs-2

Item	Specifications
Type	E5330Bs-2
Operating frequency	HSPA+/HSPA/UMTS: 2100/900 MHz
	EDGE/GPRS/GSM: 1900/1800/900/850 MHz
	WLAN: 2400–2483.5 MHz

Table 1-2 lists the branch type E5330Bs-6.

**Table 1-2** Branch type E5330Bs-6

Item	Specifications
Type	E5330Bs-6
Operating frequency	HSPA+/HSPA/UMTS: 2100/1900/850 MHz
	EDGE/GPRS/GSM: 1900/1800/900/850 MHz
	WLAN: 2400–2483.5 MHz

## 1.3 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 E5330's optional features are as follows:

IPv6 /IPv4 dual stack



# 2 Features

## 2.1 Main Features

The E5330 mainly supports the following features:

- 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 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
- Press and Play
- 3G/Wi-Fi auto offload
- IPv6 /IPv4 dual stack (optional)
- Built-in DHCP Server, DNS RELAY and NAT
- Online software upgrade
- Traffic statistic
- Standard Micro USB interface
- HiLink features (Driverless, Zero installation)
- 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	WAN: HSPA+/HSPA/UMTS/EDGE/GPRS/GSM	
	WLAN: IEEE 802.11b/g/n	
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	
Power supply	AC: 100–240 V	
	DC: 5 V, 1 A	
Battery	Type: Li (rechargeable)	
	Capacity: 3.7 V, 1500 mAh	
	Maximum working time: 5–6 hours (depending on the network)	
	Maximum standby time: 300 hours (depending on the network)	
External	USB interface: Micro USB	

Item	Specifications	
interfaces	SIM card interface: standard 6-pin SIM card interface	
Indicators	Signal	Green: Strong signal
		Orange: Weak signal
		Red: No signal
	Wi-Fi	Green: Wi-Fi turned on
		Blue: Connected to WLAN
	Battery	Green: Sufficient battery
		Blinking green: Charging the battery
		Red: Low battery
	SMS	Green: New message
		Blinking green: Inbox full
Power	Blinks slowly: The Mobile WiFi enters the standby mode	
Button	Power switch, Reset switch	
Antenna	<ul style="list-style-type: none"> <li>• Built-in GSM/UMTS main diversity antenna</li> <li>• Built-in UMTS diversity antenna</li> <li>• Built-in WLAN antenna</li> </ul>	
Dimensions (D xW x H)	60.0 mmx92.8 mmx14.0 mm	
Weight	about 74 g (including the battery)	
Temperature	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"> <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 E5330.</li> <li>• New message prompt</li> </ul>
Network connection setup	<ul style="list-style-type: none"> <li>• APN management: create, delete and edit.</li> <li>• Set up network connection</li> </ul>
WLAN setup	<ul style="list-style-type: none"> <li>• SSID broadcasting and hiding</li> <li>• Open system and shared key authentication</li> <li>• ASCII and HEX keys</li> <li>• 64/128-bit WEP encryption</li> <li>• 256-bit WPA-PSK and WPA2-PSK encryption</li> <li>• AES encryption algorithm</li> <li>• TKIP and AES integrated encryption algorithm</li> <li>• Automatic adjustment of ratios</li> <li>• STA management</li> <li>• Turn off Wi-Fi automatically</li> <li>• WLAN MAC filter</li> </ul>
Firewall setup	<ul style="list-style-type: none"> <li>• Firewall Switch</li> <li>• LAN IP Filter</li> <li>• Virtual Server</li> <li>• DMZ Service</li> <li>• UPnP Service</li> <li>• WAN Ping block</li> </ul>
NAT setup	<ul style="list-style-type: none"> <li>• CONE NAT</li> <li>• Symmetric NAT</li> <li>• VPN passthrough</li> </ul>
DHCP setup	<ul style="list-style-type: none"> <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 (PnP)
3G/Wi-Fi auto offload	<ul style="list-style-type: none"> <li>• Accessing to WAN via 3G or Wi-Fi</li> <li>• Automatic offload between 3G and Wi-Fi</li> </ul>

Item	Description
IPv6/IPv4 dual stack (optional)	<ul style="list-style-type: none"> <li>• DHCPv6/v4 server and client</li> <li>• DNSv6/v4 server and client</li> <li>• Display IPv6/v4 WAN address</li> </ul>
Other	Network connection settings: <ul style="list-style-type: none"> <li>• Automatic network selection and registration</li> <li>• Manual network selection and registration</li> </ul>
	Network status display: signal, operator name, system mode, and so on.
	Selection of network connection types, for example: <ul style="list-style-type: none"> <li>• 3G Only</li> <li>• 2G Only</li> <li>• Auto</li> </ul>
	PIN management: activate/deactivate PIN, PIN lock, changing PIN, unblocking by using the PUK.
System requirement	<ul style="list-style-type: none"> <li>• Windows XP SP3, Windows Vista SP1/SP2, Windows 7, Windows 8 (does not support Windows RT)</li> <li>• Mac OS X 10.6, 10.7 and 10.8 with latest upgrades</li> <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

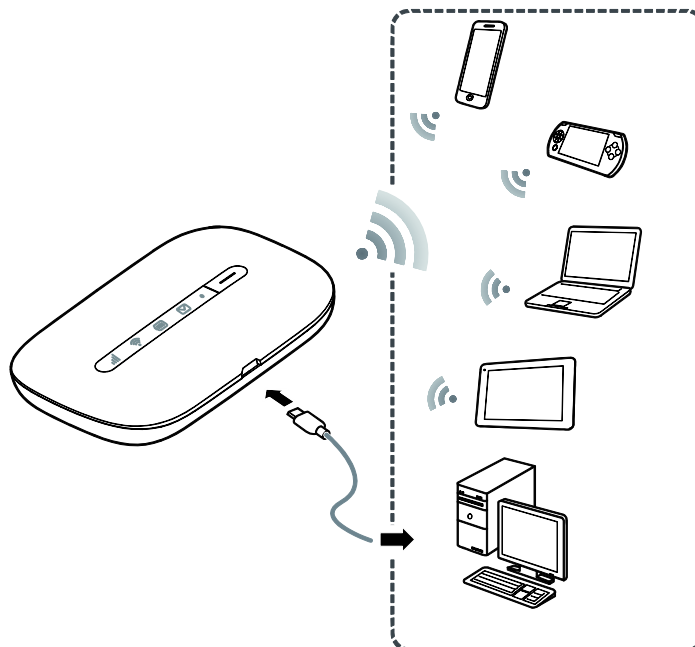
## 3.1 Data Service

### 3.1.1 Wireless Modem

The E5330 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 E5330.

A maximum of ten wireless users can access the E5330 at the same time. You can set up the WLAN with the access point (AP) function.

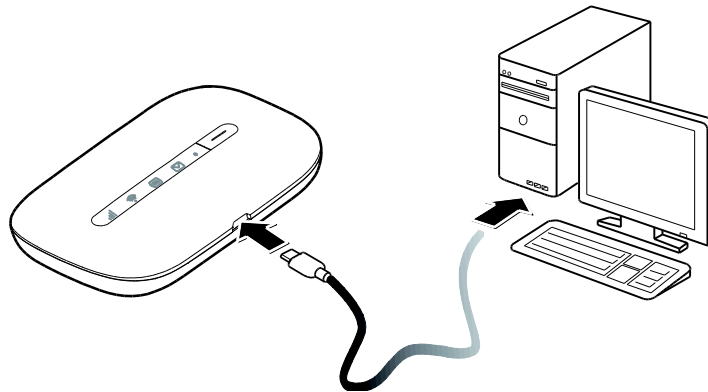
**Figure 3-1** Multi-device access via Wi-Fi and USB at the same time



### 3.1.2 USB Modem

After you connect the E5330 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 E5330 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

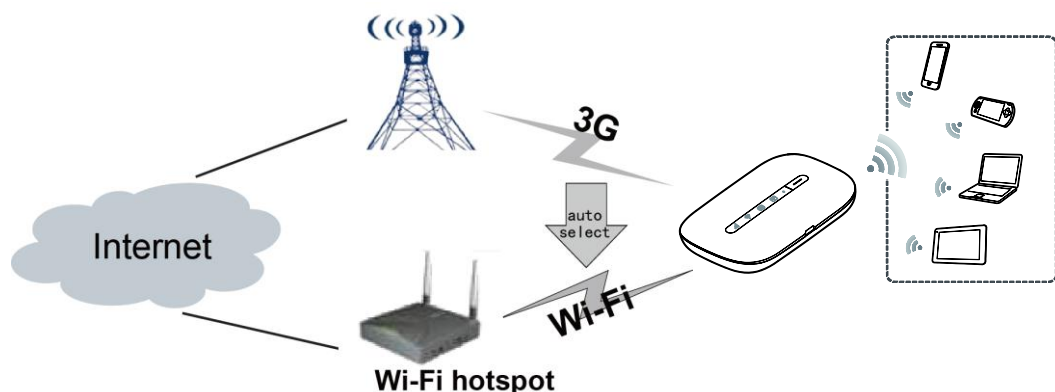


### 3.1.3 3G/Wi-Fi Auto Offload

The E5330 allows you to access the Internet via 3G or Wi-Fi. When you are using the E5330 in areas with a Wi-Fi hotspot, for example, an airport, a cafe, a hotel, or your home, the E5330 switches to Wi-Fi connection automatically, saving your 3G network traffic fees.

After the function is enabled, a maximum of nine wireless users can access the E5330 at the same time.

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

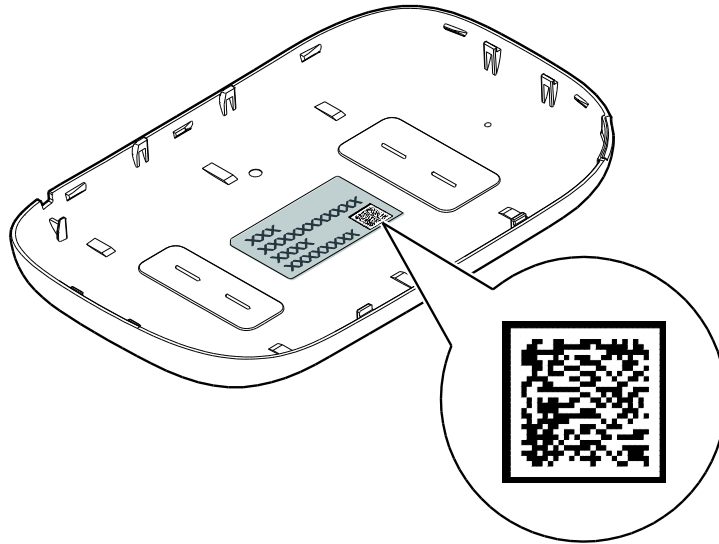


## 3.2 SMS

The E5330 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 E5330 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 E5330 to access the Internet by scanning a 2D Barcode on the E5330 rear label.



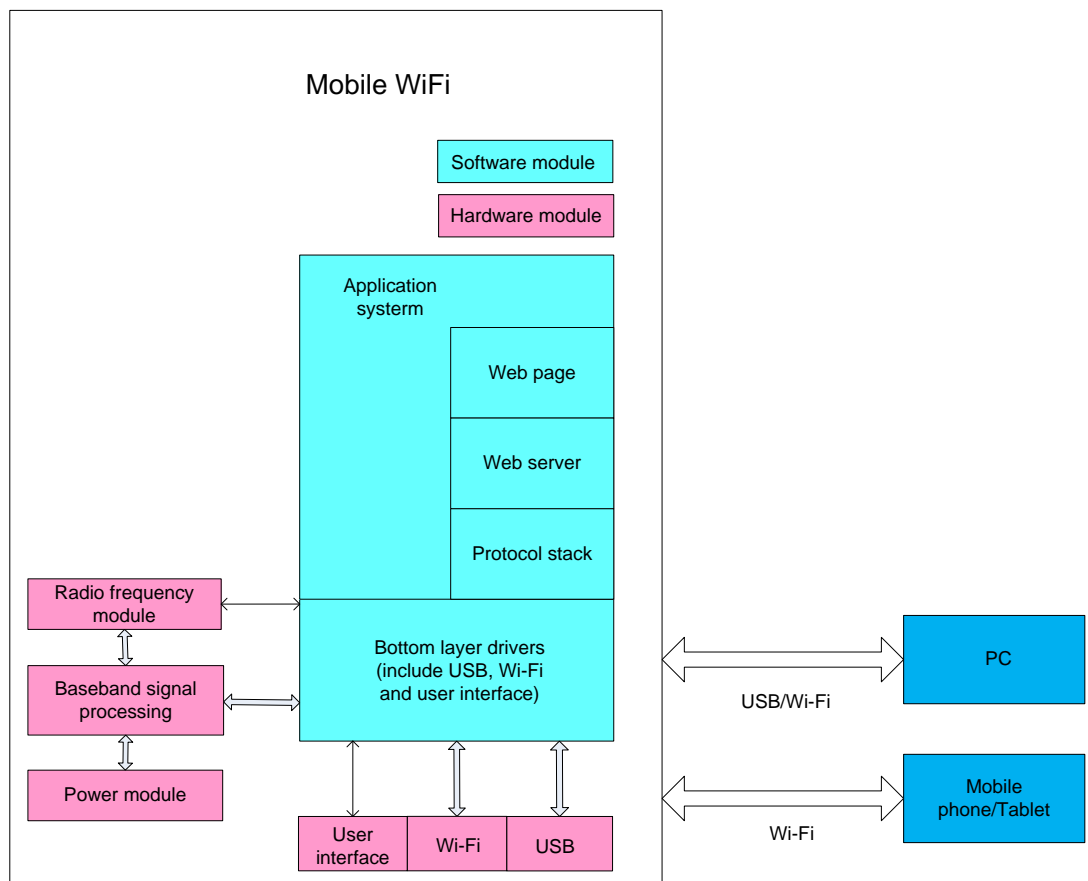


# 4 System Architecture

## 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 HSPA+/HSPA/UMTS/EDGE/GPRS/GSM baseband digital signals, including:
  - Modulating/Demodulating HSPA+/HSPA/UMTS baseband signals
  - Modulating/Demodulating EDGE/GPRS/GSM baseband signals
  - Encoding/Decoding 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 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 E5330.

Table 5-1 lists the items contained in the package of the E5330.

**Table 5-1** Packing list of the E5330

Item	Quantity	Remarks
Mobile WiFi	1	Standard
Rechargeable Battery (1500 mAh)	1	Standard
USB Cable (17 cm)	1	Standard
Quick Start	1	Standard
Safety Information	1	Standard
Charger	1	Optional
Warranty Card	1	Optional

# A Acronyms and Abbreviations

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

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