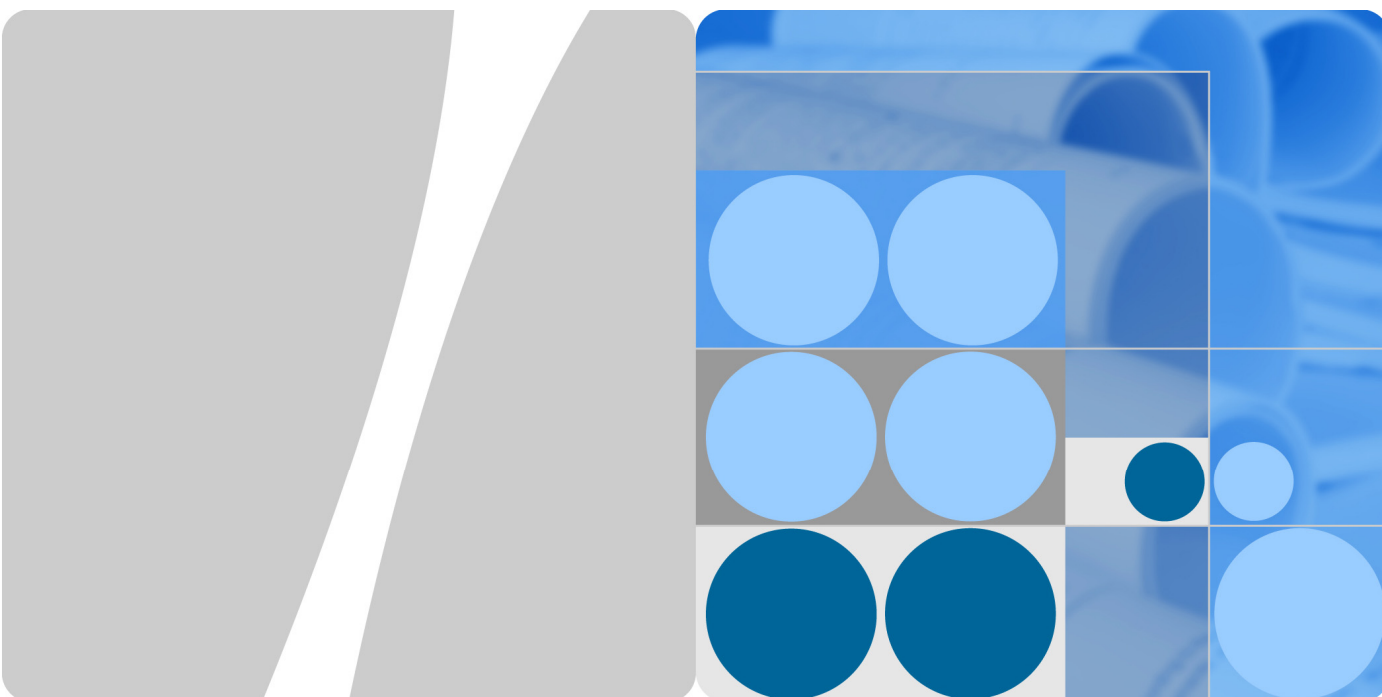


Part number: 203134



HUAWEI WS320 Wireless Repeater Product Description

Issue 01
Date 2010-06-17

HUAWEI TECHNOLOGIES CO., LTD.



Copyright © Huawei Technologies Co., Ltd. 2010. All rights reserved.

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of Huawei Technologies Co., Ltd.

Trademarks and Permissions



and other Huawei trademarks are trademarks of Huawei Technologies Co., Ltd. All other trademarks and trade names mentioned in this document are the property of their respective holders.

Notice

The purchased products, services and features are stipulated by the commercial contract made between Huawei and the customer. All or partial products, services and features described in this document may not be within the purchased scope or the usage scope. Unless otherwise agreed by the contract, all statements, information, and recommendations in this document are provided "AS IS" without warranties, guarantees or representations of any kind, either express or implied.

The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute the warranty of any kind, express or implied.

Huawei Technologies Co., Ltd.

Address: Huawei Industrial Base
Bantian, Longgang
Shenzhen 518129
People's Republic of China

Website: <http://www.huawei.com>

Email: terminal@huawei.com

Contents

1 Overview.....	4
1.1 Function Overview	4
1.2 Network Architecture	5
1.3 Hardware Features	6
1.3.1 Interfaces and Buttons	6
1.3.2 Indicators	6
2 Product Features	8
2.1 Built-In Antenna	8
2.2 Multiple WLAN Protocols	8
2.3 WPS	8
2.4 Convenient and Secure Management and Maintenance	8
3 Technical Specifications	9
3.1 WLAN Interface	9
3.2 Security Features	9
3.3 Maintenance and Management	10
3.4 Power Supply Specifications	10
3.5 Physical Specifications	10
3.6 Environmental Specifications	10
4 Acronyms and abbreviations	11

1 Overview

1.1 Function Overview

HUAWEI WS320 Wireless Repeater (hereinafter referred to as the WS320) is a radio signal repeater that can work with wireless access points (APs) to extend the wireless network coverage.

Using the WS320 over a wireless network effectively helps solve radio signal issues, such as signal impairment and attenuation. The WS320 receives radio frequency signals (that is, 802.11 frames) from wireless devices, such as APs, clients, or other repeaters, and forwards the frames without changing the contents of the frames, thus extending the wireless network coverage. The wireless signals of the WS320 can cover some dead zones, such as the partition walls or partition floors of bedrooms, cellars, or yards, thus effectively extending the wireless signal coverage and easily implementing various wireless applications.

A wireless local area network (WLAN) with the WS320 supports the IEEE 802.11b, 802.11g, and 802.11n standards, providing you with high-rate wireless networking functions.

Figure 1-1 shows the appearance of the WS320.

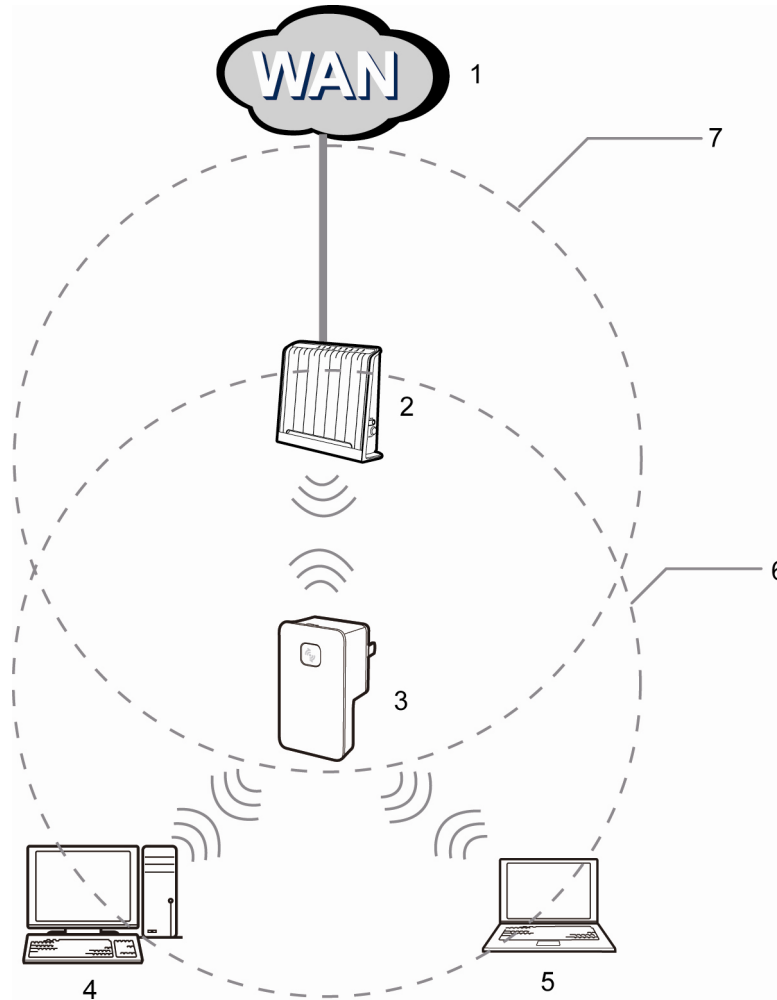
Figure 1-1 Appearance of the WS320



1.2 Network Architecture

Figure 1-2 shows the networking diagram of the WS320.

Figure 1-2 Networking diagram of the WS320



- 1. Wide area network (WAN)
- 2. Wireless AP
- 3. WS320
- 4. Desktop computer installed with a wireless adapter
- 5. Laptop installed with a wireless adapter
- 6. Coverage of the WLAN with the WS320
- 7. Coverage of the WLAN with the AP

1.3 Hardware Features

1.3.1 Interfaces and Buttons

Figure 1-3 Interfaces and buttons on the WS320

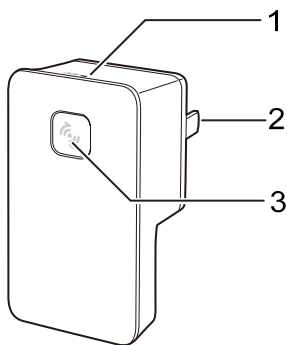


Table 1-1 Functions of the interfaces and buttons

No.	Description
1	Reset button: used to restore the default settings of the WS320.
2	Power plug: used to connect to the power socket.
3	WPS button: used to start the WPS negotiation of the WS320.
NOTE WPS = Wireless Fidelity Protected Setup	

1.3.2 Indicators

Figure 1-4 Indicator of the WS320

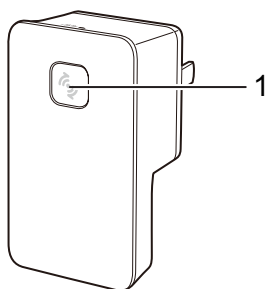


Table 1-2 Description of the indicator on the WS320

No.	Description
1	Status indicator: located in the middle of the WPS button and used to indicate the working state of the WS320.

2 Product Features

2.1 Built-In Antenna

With a built-in antenna, the WS320 features a compact, simple, and elegant appearance.

2.2 Multiple WLAN Protocols

The WS320 supports multiple WLAN protocols, including 802.11b, 802.11g, and 802.11n (2.4 GHz–2.4835 GHz, using a 1T × 1R antenna). It also supports different wireless encryption modes, providing a secure, reliable, and high-speed WLAN access for users.

2.3 802.11n

The WS320 supports 802.11n (using a 1T × 1R antenna). It can implement the network access at a high speed of 135 Mbit/s.

2.4 WPS

The WS320 provides a WPS button, which facilitates fast, convenient, and secure establishment of a wireless connection.

2.5 Convenient and Secure Management and Maintenance

The WS320 provides a Web-based configuration utility, and ensures secure use of this Web-based configuration utility through password verification.

3 Technical Specifications

3.1 WLAN Interface

WLAN Specifications

- Supports the following multiple WLAN protocols:
 - 802.11b
 - 802.11g
 - 802.11n (2.4 GHz–2.4835 GHz)
- Supports multiple modulation modes
- Supports simultaneous access of multiple wireless terminals

WLAN Rates

- 802.11b: 1 Mbit/s, 2 Mbit/s, 5.5 Mbit/s, and 11 Mbit/s
- 802.11g: 6 Mbit/s, 9 Mbit/s, 12 Mbit/s, 18 Mbit/s, 24 Mbit/s, 36 Mbit/s, 48 Mbit/s, and 54 Mbit/s
- 802.11n (using a 1T × 1R antenna): 6 Mbit/s, 6.5 Mbit/s, 13.5 Mbit/s, 19.5 Mbit/s, 26.0 Mbit/s, 27.0 Mbit/s, 39.0 Mbit/s, 40.5 Mbit/s, 52.0 Mbit/s, 54.0 Mbit/s, 58.5 Mbit/s, 65.0 Mbit/s, 81.0 Mbit/s, 108.0 Mbit/s, 121.5 Mbit/s, and 135.0 Mbit/s.

3.2 Security Features

- Supports the following multiple authentication modes on the WLAN interface
 - Open system
 - Wi-Fi Protected Access-pre-shared key (WPA-PSK)
 - WPA2-PSK
- Supports the following multiple encryption modes on the WLAN interface:
 - Wired Equivalent Privacy (WEP) encryption (64-bit and 128-bit)
 - Temporal Key Integrity Protocol (TKIP) encryption
 - Advanced Encryption Standard (AES) encryption
- Supports the following WPS modes:
 - Push Button Configuration (PBC) mode
 - Personal identification number (PIN) code mode
- Supports hiding of the service set identifier (SSID)

3.3 Maintenance and Management

- Local management through Web-based configuration utility
- Upgrading software through the Web management interface
- Software upgrade in multicast mode

3.4 Power Supply Specifications

- Supports power plugs with various specifications:
 - Chinese standard
 - American standard
 - British standard
 - European standard
- Power supply: 100 V AC–240 V AC
- Power consumption: < 5 W

3.5 Physical Specifications

Power Plug Specification	Dimensions (L × W × H)	Weight
China and America	76 mm × 42 mm × 59 mm	About 61 g
Britain	76 mm × 42 mm × 62mm	About 72 g
Europe	76 mm × 42 mm × 69mm	About 66 g

3.6 Environmental Specifications

- Ambient temperature for operation: 0°C to 40°C (32°F to 104°F)
- Relative humidity for operation: 5% to 95% , non-condensing

4

Acronyms and abbreviations

Abbreviation	Full Form
AES	Advanced Encryption Standard
LAN	local area network
PBC	Push button configuration
PIN	personal identification number
PSK	Pre-shared Key
SSID	service set identifier
TKIP	Temporal Key Integrity Protocol
WAN	wide area network
WEP	Wired Equivalent Privacy
WLAN	wireless local area network
WPA	Wireless Fidelity Protected Access
WPS	Wireless Fidelity Protected Setup