

LTE Outdoor CPE(ODU+IDU) B2368-66 Product Description

lssue 01 Date 2018-06-12



HUAWEI TECHNOLOGIES CO., LTD.

Copyright © Huawei Technologies Co., Ltd. 2017. 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

HUAWEI 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 contract made between Huawei and the customer. All or part of the products, services and features described in this document may not be within the purchase scope or the usage scope. Unless otherwise specified in 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 a 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: support@huawei.com

Contents

1 About This Document	1
1.1 Summary	
1.2 History	
2 Product Overview	2
3 Features	3
4 Technical Specifications	5
4.1 Hardware Specifications	5
4.2 CA Combination Sets	
4.3 Antenna Specifications	
4.3.1 Build-in LTE Antenna	
4.3.2 Build-in WiFi Antenna	
4.4 Software Specifications	
5 Services and Applications	
5.1 Data Services	
5.1.1 Ethernet LAN	
5.1.2 Wi-Fi Service	
5.2 Voice service	
5.3 Security Service	
5.3.1 Firewall Service	
5.3.2 MAC Filter	
5.3.3 Wi-Fi Authentication	
5.4 VPN Tunneling	
5.5 IP Pass-through	
5.6 Multi-APN	
5.7 Local management and maintenance	
5.8 FOTA	
6 System Structure and Scenario Constraints	21
6.1 System Architecture	
6.2 Scenario Constraints	Fehler! Textmarke nicht definiert.
7 Technical References	23
7.1 Standards and Communication Protocols	
Issue Draft A (2017-08-1412)	3

9 Acronyms and Abbreviations	25
8 Packing List	24
7.1.2 Standards and Communication Protocols of the Wireless Uu Interface	23
7.1.1 Standards and Communication Protocols of the Products	

About This Document

1.1 Summary

This document provides information for product features, main functions and services, technical specifications and technical references.

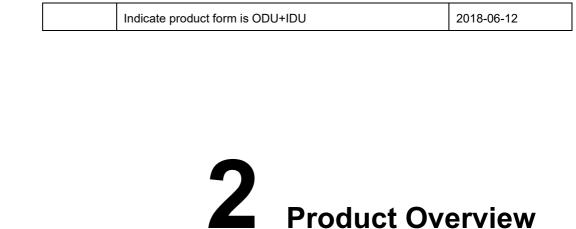
This document includes:

Chapter	Details	
2 Product Overview	Describes the appearance and main services of product	
3 Features	Describes the product features	
4 Technical Specifications	Describes the specifications of product hardware, software and user interface	
5 Services and Applications	Describes the main functions and applications	
Fehler! Verweisquelle konnte nicht gefunden werden.Fehler! Verweisquelle konnte nicht gefunden werden.	Describes the product system structure	
7 Technical References	Describes Standards and Communication Protocols of the Products	

The document is an invitation to offer but not an offer. It is intended to describe the general features and functions of products. The features and functions of certain products vary with requirements of customers.

1.2 History

Issue	Details	Date
Draft A	Initial formal release	2017-09-21
GA version	Formal version release	2018-03-16



The HUAWEI LTE CPE B2368-66 (hereinafter referred to as B2368) is a LTE wireless gateway for multiple users.

B2368 supports LTE (Long Term Evolution) 3GPP Release 12 with UE uplink Cat 13 and downlink Cat 12.

There are two part (ODU and IDU) in B2368-66, ODU is for LTE wireless access, IDU is to provide router and WiFi functionality. The supported service functions are as follows:

- Data service
- VoIP service
- Security Service
- Wi-Fi Service
- L2/L3 VPN Service
- IP pass-through
- Multi-APN
- Local maintenance management function
- Firmware over the air (FOTA)

3 Features

The main features of B2368-66 are listed as follows:

- LTE connectivity with DL 4x4MIMO + 2CC CA and UL 2CC CA + 64QAM
 - Supports LTE TDD DL 4x4MIMO and DL 2CC up to 40 MHz contiguous or non-contiguous carrier aggregation.
 - Supports LTE FDD 4x4MIMO (Band3/7), 2x2 MIMO(Band 1/8/20)
 - Supports LTE FDD+TDD 2CC up to 40MHz CA,FDD 4x4MIMO(Band3/7),TDD 4x4MIMO
 - Supports LTE FDD/TDD UL 2CC up to 40 MHz contiguous or non-contiguous (inter-band) carrier aggregation and UL 64QAM.
- High speed experience
 - Supports LTE UE uplink category 13 and downlink category 12.
 - Supports a maximum throughput of 420 Mbit/s in the downlink and 30 Mbit/s in the uplink when TDD subframe configuration 2 is used.
 - Supports a maximum throughput of 584 Mbit/s in the downlink and 150 Mbit/s in the uplink for FDD.
- Three port Gigabit Ethernet (GE) switch
 - Supports wired LAN connectivity with rate auto-negotiation and medium dependent interface crossover (MDIX) auto-detection.
- Wireless LAN access point
 - Supports wireless LAN (WLAN) connectivity with an integrated 802.11ac/b/g/n access point.
 - Supports 802.11 security mechanisms, such as WPA, and WPA2.
- Voice over IP (VoIP)*
 - Supports high-quality voice services over the telephony interface in compliance with the Simple Internet Protocol (SIP).
 - Supports one line of voice and connection to another integrated access device (IAD) to obtain more voice ports.
 - Supports multiple APNs, with one APN for VoIP.
 - * This feature need to be IOT
- Flexible networking capabilities
 - Provides high-speed routing capability.

- Supports a comprehensive set of networking and IP protocols, such as routing, domain name server (DNS), dynamic DNS, Dynamic Host Configuration Protocol (DHCP) server, and Network Address Translation (NAT).
- Flexible security services
 - Supports packet filtering firewall.
 - Provides instant protection to block potential security risks and intrusion attempts.
- Web-based configuration

Supports local and remote management and maintenance with built-in webbased configuration and user-friendly web interface.

- TR069&SNMPv3(SNMPv3 need customization)-based device management
 - Supports the CPE WAN Management Protocol (CWMP) as specified in Broadband Forum TR-069&SNMPv3 Amendment II.
 - Supports remote software image installation, with a set of configuration and status parameters.
- VPN

Supports L2/L3 VPN client.

- Antenna and interface
 Has a built-in LTE and WLAN high-gain, high-performance antenna.
- Others
 - Has a user-friendly design of LED indicators to show the status of equipment.
 - Supports Windows 7, Windows 8, Windows 10, Linux, and Mac.
 - Be compatible with browsers including Internet Explorer, Firefox, Chrome, and Safari.



4.1 Hardware Specifications

Table 4-1 describes technical specifications of the B2368.

Item	Descripti	on
Technical standard	WAN: LTE 3GPP Release 12 (Uplink Cat 13 and Downlink Cat 12)	
	LAN: IEEE	802.3
	WLAN: IEE	E 802.11ac/b/g/n
Working frequency band	LTE TDD B38&B40&B41&B42&B43 In Canada market, not support 3650~3700MHz	
	LTE FDD	B1&B3&B7&B8&B20
	WLAN	2.4GHz & 5GHz
Frequency channel bandwidth	FDD: 5MHz, 10MHz, 15MHz, 20MHz TDD: 10MHz, 15MHz, 20MHz	
External interface	TDD: 10MHz, 15MHz, 20MHz Indoor Unit: 3 Ethernet interface (RJ45) ; 10/100/1000 Mbps 1 Giga PSU(Power Supply Unit) WAN port (RJ45) ; 10/100/1000 Mbps 1 POTS interface (RJ11) 1 Power button 1 Reset button 1 WPS button 1 DC IN interface Outdoor Unit: 1 Giga PSU LAN port (RJ45) ; 10/100/1000 Mbps 1 USIM card slot(3FF)	

Table 4-1	Technical	specifications	of the B2368
	roonnoan	opoonnoutionio	

Item	Description			
LED indicator	Indoor Unit	:		
	1 System F	Power indicator		
	1 indicators	ofor LTE signal strength		
	1 WLAN inc	dicator		
	1 Phone inc	dicator		
	Outdoor Ur	Outdoor Unit:		
	1 System Power indicator & System indicator & LTE signal strength			
Maximum transmit power	LTE 200mW (23dBm±2.7dB)			
	WLAN 802.11ac: SISO: 10mW(10dBm±2dB), MIMO: 20mW(13dBm±2dB)			
	802.11n: SISO: 16mW(12dBm±2dB), MIMO: 32mW(15dBm±2dB)			
	802.11g: 16mW(12dBm±2dB)			
		802.11b: 32mW(15dBm±2dB)		

Item	Description		
Receiving sensitivity	LTE	B38&B40:	
		-97dBm/10MHz;	
		-95.2dBm/15MHz;	
		-94dBm/20MHz;	
		B41:	
		-95dBm/10MHz;	
		-93.2dBm/15MHz;	
		-92dBm/20MHz;	
		B42&B43:	
		-96dBm/10MHz;	
		-94.2dBm/15MHz;	
		-93dBm/20MHz;	
		B1:	
		-100dBm/5MHz;	
		-97dBm/10MHz;	
		-95.2dBm/15MHz;	
		-94dBm/20MHz;	
		B3:	
		-97dBm/5MHz;	
		-94dBm/10MHz;	
		-92.2dBm/15MHz;	
		-91dBm/20MHz;	
		B7:	
		-98dBm/5MHz;	
		-95dBm/10MHz;	
		-93.2dBm/15MHz;	
		-92dBm/20MHz;	
		B8:	
		-97dBm/5MHz;	
		-94dBm/10MHz;	
		B20:	
		-97dBm/5MHz;	
		-94dBm/10MHz;	
		-91.2dBm/15MHz;	
		-90dBm/20MHz;	
	WLAN	-48 dBm@160Mbit/s, typical for 802.11ac	
		-64 dBm@65Mbit/s, typical for 802.11n	
		-65 dBm@54Mbit/s, typical for 802.11g	
		-76 dBm@11Mbit/s, typical for 802.11b	

Item	Description		
Power consumption	Average power consumption at peak: <24 W Average power consumption while Wi-Fi disable: <22W		
AC/DC power supply	AC: 100V–240V, 50/60 Hz DC: 12V/2A		
Dimensions (W×D×H)	ODU:275mm(H) *125mm(D) IDU: 166 mm(L) X 124 mm(W) X 50mm(H)		
Dimensions with package(W×D×H)	Inside box: 470 x 382 x 134.8 mm Outside box: 490*400*173 mm		
Weight	Outdoor Unit: < 1.5kg Indoor Unit: ~290g		
Weight with package	~4.2kg,including mounting kits		
Temperature	ODU: Working temperature:		
Humidity	5% ~ 95%		
Installation	The pole-mounting/wall-mounting kits for the outdoor unit		
Environmental	IP65 for ODU		
Certification/ Compliance	CE certification IEC/EN60950-1 Wireless Safety IEC/EN60950-22 Environmental CE Class B ROHS REACH WEEE		

4.2 CA Combination Sets

The following tables illustrate the CA combinations that the B2368-66 supports.

Table 4-22 lists the downlink CA configurations.

Table 4-2DL 2CC Downlink CA configurations at 4Rx(TDD)/4Rx(FDD B3/7)/2Rx(FDD B1/8/20)

	Allowed Band	Combination	
NO.	Sets		Remark
	PCC	SCC	
1	B1	B3	Up to 40 MHz bandwidth, inter-band
2	B1	B7	Up to 40 MHz bandwidth, inter-band
3	B1	B8	Up to 40 MHz bandwidth, inter-band
4	B1	B20	Up to 40 MHz bandwidth, inter-band
5	B3	B1	Up to 40 MHz bandwidth, inter-band
6	B3	B7	Up to 40 MHz bandwidth, inter-band
7	B3	B8	Up to 40 MHz bandwidth, inter-band
8	B3	B20	Up to 40 MHz bandwidth, inter-band
9	B7	B1	Up to 40 MHz bandwidth, inter-band
10	B7	B3	Up to 40 MHz bandwidth, inter-band
11	B7	B8	Up to 40 MHz bandwidth, inter-band
12	B7	B20	Up to 40 MHz bandwidth, inter-band
13	B1	B1	Up to 40 MHz bandwidth, contiguous
14	B3	B3	Up to 40 MHz bandwidth, contiguous
15	B7	B7	Up to 40 MHz bandwidth, contiguous
16	B8	B8	Up to 20 MHz bandwidth, contiguous
17	B20	B20	Up to 30 MHz bandwidth, contiguous
18	B38	B38	Up to 40 MHz bandwidth, non-contiguous
19	B40	B40	Up to 40 MHz bandwidth, non-contiguous
20	B41	B41	Up to 40 MHz bandwidth, non-contiguous
21	B42	B42	Up to 40 MHz bandwidth, non-contiguous
22	B38	B38	Up to 40 MHz bandwidth, contiguous
23	B40	B40	Up to 40 MHz bandwidth, contiguous
24	B41	B41	Up to 40 MHz bandwidth, contiguous
25	B42	B42	Up to 40 MHz bandwidth, contiguous
26	B43	B43	Up to 40 MHz bandwidth, contiguous
27	B38	B40	Up to 40 MHz bandwidth, inter-band
28	B38	B42	Up to 40 MHz bandwidth, inter-band
29	B40	B38	Up to 40 MHz bandwidth, inter-band
30	B40	B41	Up to 40 MHz bandwidth, inter-band
31	B40	B42	Up to 40 MHz bandwidth, inter-band
32	B41	B40	Up to 40 MHz bandwidth, inter-band
33	B41	B42	Up to 40 MHz bandwidth, inter-band
34	B42	B38	Up to 40 MHz bandwidth, inter-band
35	B42	B40	Up to 40 MHz bandwidth, inter-band
36	B42	B41	Up to 40 MHz bandwidth, inter-band

37	B42	B43	Up to 40 MHz bandwidth, inter-band
38	B43	B42	Up to 40 MHz bandwidth, inter-band
39	B1	B38	Up to 40 MHz bandwidth, inter-band
40	B1	B40	Up to 40 MHz bandwidth, inter-band
41	B1	B42	Up to 40 MHz bandwidth, inter-band
42	B3	B38	Up to 40 MHz bandwidth, inter-band
43	B3	B40	Up to 40 MHz bandwidth, inter-band
44	B3	B41	Up to 40 MHz bandwidth, inter-band
45	B3	B42	Up to 40 MHz bandwidth, inter-band
46	B8	B38	Up to 40 MHz bandwidth, inter-band
47	B8	B40	Up to 40 MHz bandwidth, inter-band
48	B8	B42	Up to 40 MHz bandwidth, inter-band
49	B20	B38	Up to 40 MHz bandwidth, inter-band
50	B20	B40	Up to 40 MHz bandwidth, inter-band
51	B20	B41	Up to 40 MHz bandwidth, inter-band
52	B20	B42	Up to 40 MHz bandwidth, inter-band

Fehler! Verweisquelle konnte nicht gefunden werden. lists the uplink CA configurations.

Table 4-3 Uplink CA configurations at 4Rx(TDD)/4Rx(FDD B3/7)/2R	x(FDD B1/8/20)
---	----------------

	Allowed Band Combination		
NO.		ets	Remark
	PCC	SCC	
1	B38	B38	Up to 40 MHz bandwidth, contiguous
2	B40	B40	Up to 40 MHz bandwidth, contiguous
3	B41	B41	Up to 40 MHz bandwidth, contiguous
4	B42	B42	Up to 40 MHz bandwidth, contiguous
5	B43	B43	Up to 40 MHz bandwidth, contiguous
6	B1	B1	Up to 40 MHz bandwidth, contiguous
7	B3	B3	Up to 40 MHz bandwidth, contiguous
8	B7	B7	Up to 40 MHz bandwidth, contiguous
9	B8	B8	Up to 20 MHz bandwidth, contiguous
10	B20	B20	Up to 30 MHz bandwidth, contiguous
11	B38	B40	Up to 40 MHz bandwidth, inter-band
12	B40	B38	Up to 40 MHz bandwidth, inter-band
13	B38	B42	Up to 40 MHz bandwidth, inter-band
14	B42	B38	Up to 40 MHz bandwidth, inter-band
15	B40	B41	Up to 40 MHz bandwidth, inter-band
16	B41	B40	Up to 40 MHz bandwidth, inter-band
17	B40	B42	Up to 40 MHz bandwidth, inter-band
18	B42	B40	Up to 40 MHz bandwidth, inter-band

19	B41	B42	Up to 40 MHz bandwidth, inter-band
20	B42	B41	Up to 40 MHz bandwidth, inter-band
21	B42	B43	Up to 40 MHz bandwidth, inter-band
22	B43	B42	Up to 40 MHz bandwidth, inter-band

4.3 Antenna Specifications

4.3.1 Build-in LTE Antenna

Fehler! Verweisquelle konnte nicht gefunden werden.3 describes LTE antenna specifications

Table 4-4 LTE antenna specifications

Item	Description
Frequency	TDD
	• Band 38: 2570–2620 MHz
	• Band 40: 2300–2400 MHz
	• Band 41: 2496–2690 MHz
	• Band 42: 3400–3600 MHz
	 Band 43: 3600–3800 MHz(In Canada market, not support 3650~3700MHz) FDD
	 Band 1: 1920–1980 MHz in the uplink and 2110–2170 MHz in the downlink Band 3: 1710–1785 MHz in the uplink and 1805–1880 MHz in the downlink
	 Band 3: 1710–1703 Milz in the uplink and 1003–1000 Milz in the downlink Band 7: 2500–2570 MHz in the uplink and 2620–2690 MHz in the downlink
	 Band 8: 880–915 MHz in the uplink and 925–960 MHz in the downlink
	• Band 20: 832–862 MHz in the uplink and 791–821 MHz in the downlink
Input impedance	50 Ω
Standing wave ratio	< 3.0 (after being matched, All frequency points)
efficiency	≥ 50%
Gain	Band1: 3~4dBi
	Band3: 4~5dBi
	Band7/ Band38/Band40/Band41 : 6~7dBi
	Band8/Band20: 0~2dBi
	Band42/Band43: 8~9dBi
Isolation	>8dB
Tx/Rx	TDD:1T4R
	FDD:1T4R(B3/7)
	FDD:1T2R(B1/8/20)

4.3.2 Build-in WiFi Antenna

Table 4-5 describes WLAN antenna specifications

Item	Description	
Frequency	2400MHz ~ 2483.5MHz & 5170MHz ~ 5835MHz	
Input impedance	50 Ω	
Standing wave ratio	< 3	
efficiency	≥50%	
Gain	3dBi @2.4Ghz; 5dbi @5Ghz	
Isolation	>8dB	
Polarization	Embedded Omni-directional	

 Table 4-5 WLAN antenna specifications

4.4 Software Specifications

Fehler! Verweisquelle konnte nicht gefunden werden. describes the software specifications

Item	Description	
LTE features	TDD DL 4x4MIMO + 2CC CA (contiguous or non-contiguous)	
	FDD DL 4x4MIMO (B3/7)+ 2CC CA (contiguous or non-contiguous)	
	FDD DL 2x2MIMO (B1/8/20) + 2CC CA (contiguous or non-contiguous)	
	TDD UL 2CC CA / FDD UL 2CC CA	
	FDD (4x4MIMO) (B3)+ TDD (4x4MIMO) 2CC CA	
	FDD (2x2MIMO) (B1/8/20) + TDD (4x4MIMO) 2CC CA	
	LTE TDD MIMO:	
	 TDD ONLY: Support TM 2,3,4,7,8,9 (CRS config 2port) or TM 3, 4 (CRS config 4port) 	
	2) FDD+TDD: TDD support TM 2,3,4,9(CRS config 2port)	
	LTE FDD MIMO: TM2,3,4;	
	Uplink 64QAM	
Profile	Power ON duration: <2min	
	Restart duration: <2min	
	VPN throughput: <30Mbps(DL+UL)	
Mobile network	APN management	

Item	Description		
Gateway	Router	 Supports configuration of static routing table entries (more than six entries). Supports the general route, and disabling of NAT. Supports manual configuration of LAN IP addresses. Support Address Resolution Protocol (ARR) 	
	DHCP server	 Supports Address Resolution Protocol (ARP). The DHCP server can be enabled or disabled. The address pool of the DHCP server can be configured. The lease can be configured. The DNS relay under the DHCP server can be enabled. 	
	NAT	Supports NAT and NAPT (compliant with RFC2663, RFC3022, and RFC3027).	
	ARP		
	ICMP		
	IPv4, IPv6(data service only),and IPv6/IPv4 dual stack(IPv6 need customization)		
	VPN pass-through		
Data service	LTE: UE uplink category 13 and downlink category 12		
	WLAN		
Supports three APNs (one for da		e APNs (one for data, one for voice, and one for management).	
VolP	Supports G.729, G.711a-law, and G.711u-law Code.		
	Supports SIP (RFC3261).		
	Supports SDP (RFC2327).		
	Supports RTP/RTCP (RFC1889/RFC1890).		
	Supports G.168 (echo cancellation).		
	Supports the following phone features: Caller ID generation Call waiting Call transfer 		
	 Call forwarding (unconditional, busy, and no answer forwarding) Call hold Three-way conference Do not disturb 		
Firewall setup Firewall switch-on/-off		n-on/-off	
	URL filtering		
	LAN IP filtering		

Item	Description			
	Virtual server			
	Port forwardin	g		
	DMZ service			
	UPnP service			
	ALG settings			
LAN	10/100/1000 N	10/100/1000 Mbit/s auto-negotiation		
	MDI/MDIX aut	o-sensing		
	IEEE 802.3/802.3u-compatible			
WLAN	SSID broadcast			
	IEEE 802.11ac/b/g/n			
	WPS			
	Encryption	AES, TKIP, and TKIP + AES		
	Security mode	 Open WPA-PSK WPA2-PSK WPA-PSK/WPA2-PSK 		
	STA	Supports inquiry of STA status.Supports limit of access users (up to 32 users).		
Remote management	TR069 or SNMPv3(SNMPv3 need customization)			
USIM	PIN management and USIM card authentication			
NTP	Supports daylight saving time (DST).			
Maintenance	Supports export of current diagnosis results and operation logs.			
System requirement	Operating system	 Windows 10, Windows 8.1, Windows 8, Windows 7, Mac OS X 10.9, 10.8, and 10.7 with latest upgrades Linux 		
	Web browser	 IE 11.0 and later (Windows 7 and up) Firefox 45.0 and later Safari 10.1.2 and later (Mac) Opera 36.0 and later Chrome 49.0 and later 		

Item	Description
	Your computer's hardware system should meet or exceed the recommended system requirements for the installed OS version, and if the Web browsers use the IE, it can't set compatible mode, especially for the IE8.

5 Services and Applications

5.1 Data Services

The B2368 supports the high-speed data service through LTE networks .By connecting to the B2368 using Wi-Fi or a network cable, users can get access to high-speed Internet services and establish a local area network (LAN).

5.1.1 Ethernet LAN

You can connect the B2368 with a terminal device through the Ethernet Cable in the Small Office Home Office (SOHO) to provide data services.

To form a LAN with multiple PCs, you can extend the Ethernet Interfaces through the concentrator or Ethernet Switch.

5.1.2 Wi-Fi Service

You can connect the B2368 with a terminal device through the WLAN in the Small Office Home Office (SOHO) to provide data services. B2368 supports both 2.4GHz & 5GHz Frequency.

5.2 Voice service

B2368 supports high quality voice services with SIP protocol via the built-in telephony interface. Once SIP profile is registered and correctly configured, B2368 sends the calls to the VoIP service provider's SIP server which forwards calls to either VoIP or PSTN phones.

B2368 also supports supplementary services such as call hold, call waiting, call transfer and so on which are generally available from VoIP service provider.

5.3 Security Service

The B2368 supports comprehensive and robust security services: Firewall function and PIN protection mechanisms. These features together allow users to connect their computers to the Internet and simultaneously protect their computers from the security threats of the Internet.

5.3.1 Firewall Service

The B2368 supports to enable or disable the firewall on the network connection that protects the device and network from attacks by hackers on the Internet and control access to it.

5.3.2 MAC Filter

B2368 supports to specify the Media Access Control (MAC) address to restrict network access.

5.3.3 Wi-Fi Authentication

The gateway supports the following user authentication protocols for wireless LAN:

- No Encryption
- WPA-PSK(TKIP)、WPA2-PSK(AES)、WPA-PSK/WPA2-PSK(TKIP+AES)

5.4 VPN Tunneling

VPN tunneling involves establishing and maintaining a logical network connection (that may contain intermediate hops). On this connection, packets constructed in a specific VPN protocol format are encapsulated within some other base or carrier protocol, then transmitted between VPN client and server, and finally deencapsulated on the receiving side.

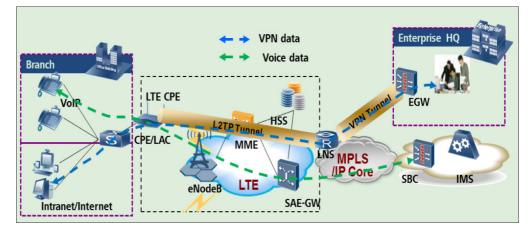
The B2368 supports L2 VPN and L3 VPN tunneling which comprised with tunneling protocols of L2TP and GRE.

VPN Tunneling scenarios describe as below figures:

[1] Enterprise Routing



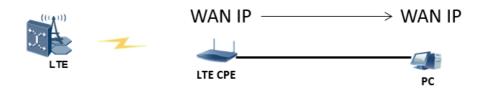
[2] Enterprise VPN Protocol Stack



5.5 IP Pass-through

LTE CPE get the WAN IP and pass through it to PC, then the PC behind the CPE can directly use the WAP IP.

Benefit: the PC behind the CPE can be directly accessed through the WAP IP



5.6 Multi-APN

The B2368 supports establishment and maintenance of three APNs. These three APN connections isolate data, voice, and remote management services on an operator's network.

The B2368 supports an independent APN for both CPE internal VoIP and external IAD under the IMS/NGN/SBC condition.

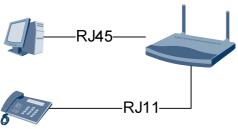
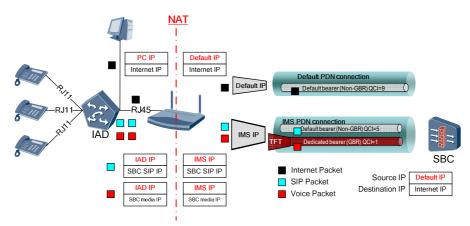


Figure 5-1 CPE with RJ11

Figure 5-2 CPE connected to the IAD/SIP phone/soft SIP phone



5.7 Local management and maintenance

The B2368 supports local configuration to accomplish device management, network configuration and ensure normal and stable performance.

5.8 FOTA

The B2368 supports FOTA (Firmware Over-The-Air) feature to allow operator upgrade device FW for both ODU & IDU simultaneously through FOTA sever remotely.

S

6 System Structure and Scenario Constraint

6.1 System Architecture

Figure 6-3 shows the interfaces for the B2368.

LTE outdoor

Figure 6-3 System structure

The following describes modules shown in Figure 6-3.

- LTE access function: The ODU(Outdoor Unit) of B2368 adopts the LTE access technology at the WAN side.
- LAN access function of IDU(Indoor Unit): Three 10/100/1000 Mbit/s highspeed Ethernet ports are provided at the LAN side. The B2368 provides the switching function for local networking and sharing of the broadband network when it is connected to terminal devices.
- AP function of IDU: An 802.11ac/b/g/n-compliant WLAN AP interface is provided, used for wireless networking at home. The interface is compliant with the IEEE 802.11ac/b/g/n standard and the WPA-PSK(TKIP)、WPA2-PSK(AES)、WPA-PSK/WPA2-PSK(TKIP+AES).
- DHCP/DNS: The DHCP server dynamically allocates IP addresses to PCs.

- Web-based management: You can configure the B2368, and modify and query the configuration of the B2368.
- IP routing protocol and NAT: The B2368 has high-speed routing capability. With the built-in NAT, the B2368, together with LTE terminals, can provide flexible broadband access solutions and networking schemes.
- VoIP function: The B2368 supports VoIP services.

TTechnical References

7.1 Standards and Communication Protocols

7.1.1 Standards and Communication Protocols of the Products

Item	Description
Physical layer	RFC894
ARP	RFC826
IP	RFC791, RFC1122, RFC1071, RFC1141, RFC1624, RFC792, RFC950, RFC1256
ICMP	RFC792, RFC950, RFC1256
TCP	RFC793
UDP	RFC768
DHCP	RFC1531, RFC1533
NAT	RFC1631

Table 7-7 Standards and communication protocols of the DATACOM products

7.1.2 Standards and Communication Protocols of the Wireless Uu Interface

B2368 supports LTE (Long Term Evolution) Release 10/11/12, Category 4/7/10/12.

8

Packing List

Table 8-8 shows the devices and accessories of the B2368.

Table 8-8	Packing list
-----------	--------------

Description	Quantity	Unit	Remarks
LTE Outdoor Unit	1	PCS	Standard
LTE Indoor Unit	1	PCS	Standard
Power Adaptor	1	PCS	Standard
Mounting Kit	1	SET	Standard
Quick Start Guide	1	PCS	Standard

9 Acronyms and Abbreviations

Abbreviation	Full Spelling
ARP	Address Resolution Protocol
AP	Access Point
APN	Access Point Name
CPE	Customer Premises Equipment
DHCP	Dynamic Host Configuration Protocol
DNS	Domain Name Server
DL	Down Link, Downlink
IP	Internet Protocol
ICMP	Internet Control Message Protocol
LAN	Local Area Network
LED	Light Emitting Diode
LTE	Long Term Evolution
NAT	Network Address Translation
SOHO	Small Office Home Office
SCP	Service Control Point
SDRAM	Synchronous Dynamic Random Access Memory
UMTS	Universal Mobile Telecommunications System
UL	Up Link, Uplink
WAN	Wide Area Network
Wi-Fi	Wireless Fidelity
WPS	Wi-Fi Protected Setup