Product Specifications

Dual Band 802.11ac 1200Mbps Wave 2 In-wall Wireless Access Point

WDAP-W1200E

Version 1.0

Change History:

Revision	Date	Author	Change List
1.0	2020/12/11	Reyo	Preliminary

Author	Reyo	Editor:	Reyo
Reviewed by:		Approved by:	Kent

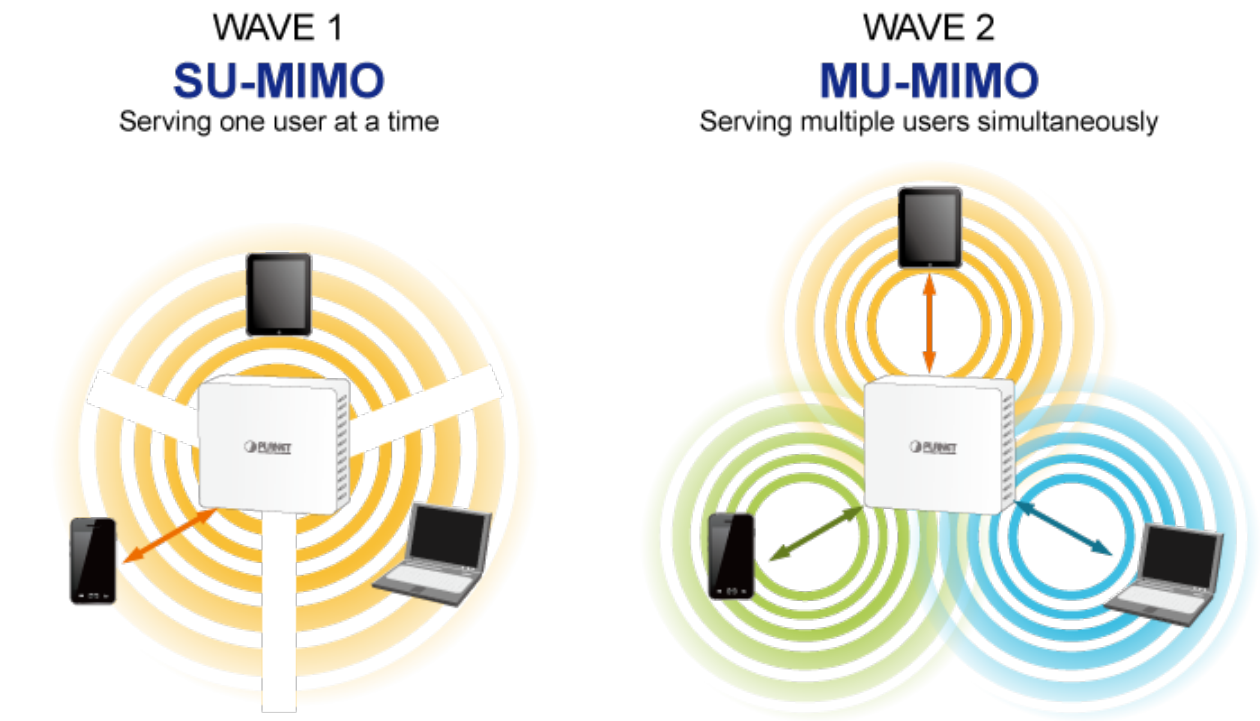
1. PRODUCT DESCRIPTION

Ultra-high-speed, Wave 2 MU-MIMO All-in-One Manageable Dual-band Wi-Fi Solution for All Applications

PLANET WDAP-W1200E 1200Mbps Wave 2 Dual Band 802.11ac Wireless AP supports central management through PLANET NMS controllers. With IEEE 802.11ac Wave 2 MU-MIMO 2T2R dual-band technology, the WDAP-C7210E provides a maximum wireless speed of 867Mbps at 5GHz and 300Mbps at 2.4GHz. The WDAP-W1200E conforms to the **standard 86-type** electrical junction box and supports **IEEE 802.3af/at PoE**. It is suitable for in-wall installation enabling to integrate the hotel network with its all-in-one interface. The WDAP-W1200E also provides stable 2.4GHz and 5GHz wireless signals that make access to internet viable in regard to whatever nature of work you are into.

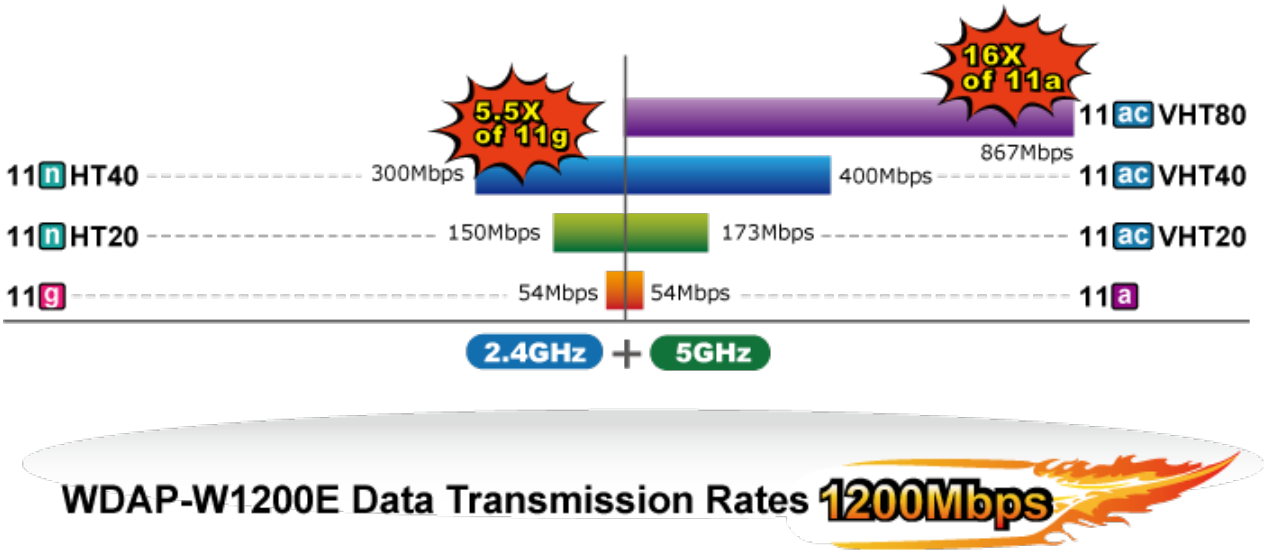
Benefits of MU-MIMO under 802.11ac Wave 2

With the MU-MIMO Wave 2 technology, the WDAP-W1200E, installed in public areas such as hotspots, airports and conferences, reduces the frustration that Wi-Fi users often experience in downloading web pages, e-mail file attachments and media contents. For cellular operators, the WDAP-W1200E provides a better Wi-Fi user experience, reducing the likelihood of users turning off Wi-Fi and putting more load on the cellular network. For enterprises, this technology also can solve Wi-Fi congestion issues in open work spaces and conference rooms.



Powerful Dual-band WLAN Solution

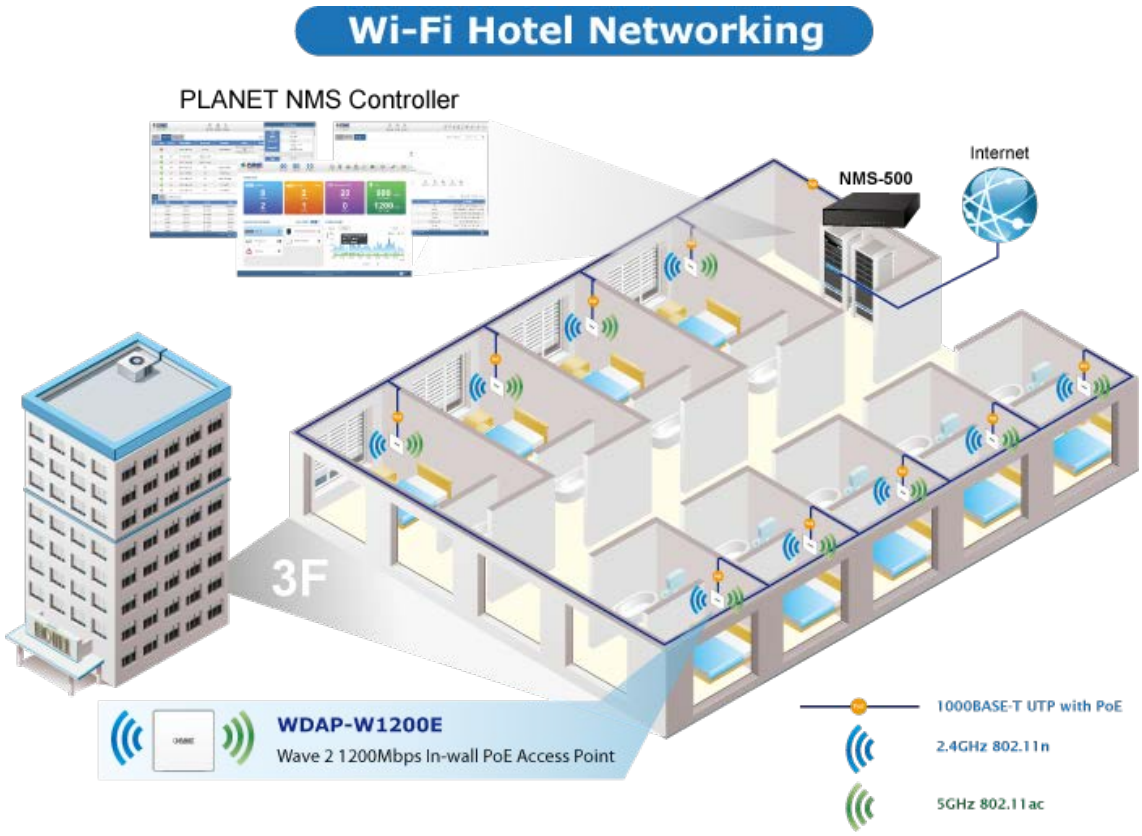
PLANET WDAP-W1200E, adopting the IEEE 802.11ac Wave 2 standard, provides a high-speed transmission of power and data, meaning two remote nodes in the **5GHz** frequency band can be bridged. The **2.4GHz** wireless connection can also be used simultaneously. Furthermore, the WDAP-C7210E adopts the high-class Qualcomm Atheros SoC (System-on-a-Chip), which provides higher stability to meet the stringent requirements of the solution.



Easy Deployment with PLANET AP Controller

To expand the capability of in-wall AP, PLANET WDAP-W1200E comes with centralized management, enabling the hospitality industry to deploy multiple APs with a single interface of **AP controller** and

reducing repetitive tasks including **AP provisioning**, **AP status monitoring** and **AP maintenance**. In addition, by connecting with PLANET AP controller, PLANET WDAP-W1200E helps hoteliers optimize their wireless network within minutes.

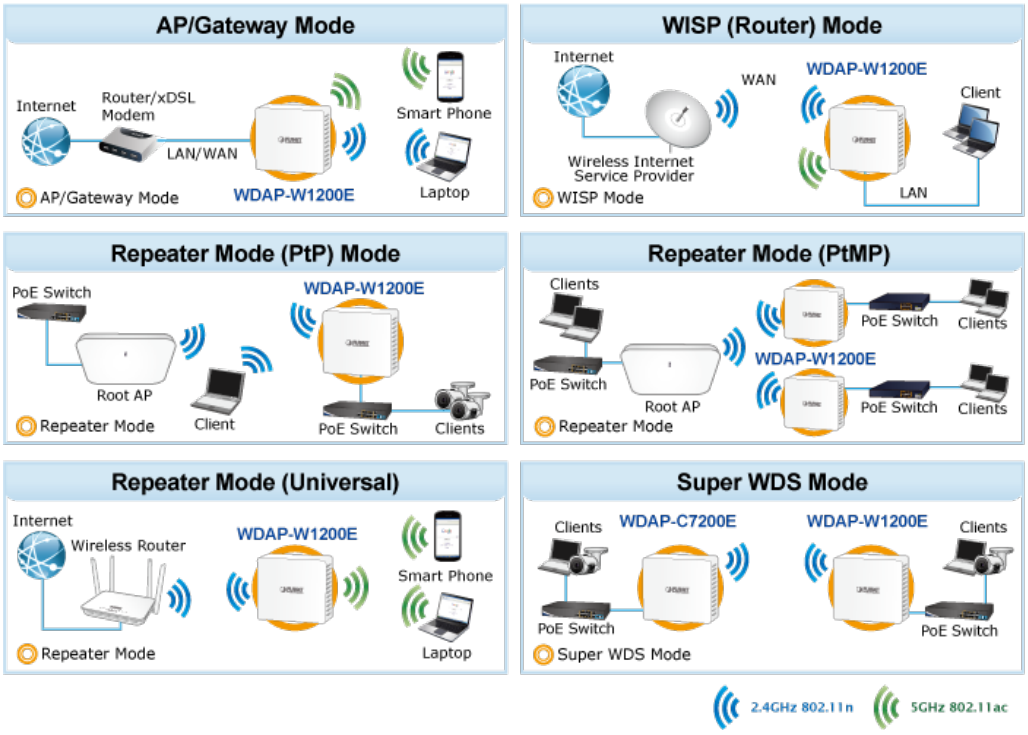


Suitable for Any Room Installation without Spoiling Interior Design

Featuring attractive in-wall design, the WDAP-W1200E can be firmly installed into the wall via the standard **86 x 86 mm** European outlet box, which makes electrical wiring invisible and convenient for room installation without affecting the original interior design. It is ideal for hotels, residences, hospitals and more to establish any kind of wireless network.

Comprehensive Wireless Operation Modes

The WDAP-W1200E supports multiple wireless communication connectivities such as **AP**, **Gateway**, **Repeater**, **Super WDS (Point-to-Point (PtP)** and **WDS Point-to-Multipoint (PtMP))**, allowing users to comprehensively experience various applications.



Basic Features Worth Mentioning

There are LED indicators showing LAN1, LAN2, WAN (in Gateway and WISP modes) and SYS (power) statuses when the cover of the WDAP-W1200E is removed. Along the indicators is the reset button for rebooting to the factory default mode. On the back of the unit are two Ethernet ports used for one IPTV and one desktop PC, and one RJ11 port used for one digital phone.

2. PRODUCT FEATURES

➢ Standard Compliant Hardware Interface

- Compliant with IEEE 802.11ac Wave 2 wireless technology with data rate of up to 1200Mbps
- Three 10/100/1000BASE-T ports and one PoE powered device (PD/WAN) port
- Supports one RJ11 port for traditional phone use
- European 86-type wall outlet compatibility

➢ Secure Network Connection

- Advanced security: 64-/128-bit WEP, WPA/WPA2 and WPA-PSK/WPA2-PSK (TKIP/AES encryption), 802.1x
- Supports wireless MAC address filtering control to limit the connected wireless clients
- Supports 802.1Q VLAN and SSID-to-VLAN mapping
- Supports IP/Port/MAC address/URL filtering, DoS, SPI firewall
- Supports DMZ and port forwarding
- Bandwidth control per IP address to increase network stability

➢ Multiple Operation Modes and Wireless Features

- Multiple operation modes: AP, Gateway, Repeater, WDS, WISP
- WMM (Wi-Fi multimedia) provides higher priority to multimedia transmitting over wireless
- Coverage threshold to limit the weak signal of clients occupying session
- Real-time Wi-Fi channel analysis chart and client limit control for better performance

➢ Easy Deployment and Management

- Supports PLANET WS/NMS AP Controllers in AP mode
- Easy discovery by PLANET Smart Discovery
- Self-healing mechanism through system auto reboot setting
- System status monitoring through remote Syslog Server
- Supports PLANET DDNS/Easy DDNS

3. PRODUCT SPECIFICATIONS

3.1 MAIN COMPONENTS

CPU	Qualcomm QCA9563 + QCA9886 + QCA8337
RAM	128MB DDR
Flash	16MB

3.2 FUNCTIONAL SPECIFICATIONS

Product	**WDAP-W1200E** **Dual Band 802.11ac 1200Mbps Wave 2 In-wall Wireless Access Point (EU Type, 802.3af/at)**	
Hardware Specifications		
Interfaces	LAN	2 x 10/100/1000BASE-T RJ45 port Auto-negotiation and auto MDI/MDI-X
	PoE Port	1 x 10/100/1000Mbps auto MDI/MDI-X RJ45 port (rear panel) ※ IEEE 802.3af/at PD port
	RJ11 Port	Six-position four-conductor (6P4C) modular jack
Antennas	Gain	4 x 2dBi antenna
Button	Reset button (Press over 10seconds to reset the device to the factory default)	
LED Indicators	LAN1/LAN2/WAN/SYS	
Dimensions (W x D x H)	86 x 45 x 86 mm	
Weight	168 ± 5g	
Power Requirements	48V DC IN, 0.5A, IEEE 802.3af/at PoE+	
Power Consumption	< 8W	
Mounting	In-wall mount	
Wireless Interface Specifications		
Standard	IEEE 802.11ac IEEE 802.11n IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11i IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3x flow control	
Media Access Control	CSMA/CA	
Data Modulation	802.11ac: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) 802.11a/g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11b: DSSS (DBPSK / DQPSK / CCK)	
Band Mode	2.4GHz / 5GHz concurrent mode	

<table>
<tr><td>Frequency Range</td><td colspan="3">2.4GHz:
FCC: 2.412~2.462GHz
ETSI: 2.412~2.472GHz
5GHz:
FCC: 5.180~5.240GHz, 5.745~5.825GHz
ETSI: 5.180~5.700GHz</td></tr>
<tr><td>Operating Channels</td><td colspan="3">FCC: 36, 40, 44, 48, 149, 153, 157, 161, 165 (9 channels)
ETSI: 36, 40, 44, 48, 100, 104, 108, 112, 116, 132, 136, 140 (12 channels)
5GHz channel list will vary in different countries according to their regulations.</td></tr>
<tr><td>RF Power</td><td colspan="3"><20dBm (EIRP)</td></tr>
<tr><td rowspan="20">Receive Sensitivity</td><td>Network Mode</td><td>Data Rate</td><td>Receive Sensitivity (dBm)</td></tr>
<tr><td colspan="3">2.4GHz</td></tr>
<tr><td rowspan="2">802.11b</td><td>1Mbps</td><td>-88</td></tr>
<tr><td>11Mbps</td><td>-85</td></tr>
<tr><td rowspan="2">802.11g</td><td>6Mbps</td><td>-88</td></tr>
<tr><td>54Mbps</td><td>-68</td></tr>
<tr><td rowspan="2">802.11n</td><td>MCS0/MCS8</td><td>-68</td></tr>
<tr><td>MCS7/MCS15</td><td>-68</td></tr>
<tr><td rowspan="2">802.11n HT40</td><td>MCS0/MCS8</td><td>-93</td></tr>
<tr><td>MCS7/MCS15</td><td>-75</td></tr>
<tr><td colspan="3">5GHz</td></tr>
<tr><td rowspan="2">802.11a</td><td>6Mbps</td><td>-92</td></tr>
<tr><td>54Mbps</td><td>-75</td></tr>
<tr><td rowspan="2">802.11n HT20</td><td>MCS0/MCS8</td><td>-91</td></tr>
<tr><td>MCS7/MCS15</td><td>-72</td></tr>
<tr><td rowspan="2">802.11n HT40</td><td>MCS0/MCS8</td><td>-88</td></tr>
<tr><td>MCS7/MCS15</td><td>-70</td></tr>
<tr><td rowspan="2">802.11ac VHT20</td><td>MCS0</td><td>-92</td></tr>
<tr><td>MCS8</td><td>-70</td></tr>
<tr><td rowspan="2">802.11ac VHT40</td><td>MCS0</td><td>-89</td></tr>
<tr><td>MCS9</td><td>-65</td></tr>
<tr><td rowspan="2">802.11ac VHT80</td><td>MCS0</td><td>-87</td></tr>
<tr><td>MCS9</td><td>-61</td></tr>
<tr><td colspan="4">Software Features</td></tr>
<tr><td rowspan="2">LAN</td><td colspan="3">Static IP/DHCP Client</td></tr>
<tr><td colspan="3">Supports IP-MAC binding</td></tr>
<tr><td>WAN</td><td colspan="3">■ Static IP
■ Dynamic IP
■ PPPoE</td></tr>
<tr><td>Wireless Mode</td><td colspan="3">■ Access Point
■ Gateway
■ WISP
■ Repeater
■ Super WDS</td></tr>
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Channel Width	20MHz, 40MHz, 80MHz
Encryption Security	64-/128-bit WEP, WPA, WPA-PSK, WPA2, WPA2-PSK, 802.1X
Wireless Security	Enable/Disable SSID Broadcast
	Wireless – filtering of max. 32 MAC addresses
	User Isolation
Max. SSIDs	8 (4 per radio)
Max. Clients	128 (100 is suggested, depending on usage)
Max. WDS Peers	4
Wireless QoS	Supports Wi-Fi Multimedia (WMM)
Wireless Advanced	Auto channel selection
	5-level transmit power control (100%, 75%, 50%, 25%, 12.5%)
	Client limit control, coverage threshold
	Wi-Fi channel analysis chart
	Fast Roaming
Status Monitoring	Device status, wireless client list
	PLANET Smart Discovery
	DHCP client table
	System Log supports remote syslog server
VLAN	IEEE 802.1Q VLAN (VID: 3~4094)
	SSID-to-VLAN mapping to up to 4 SSIDs
Self-healing	Supports auto reboot settings per day/hour
Management	Remote management through PLANET DDNS/Easy DDNS
	Configuration backup and restoration
	Supports UPnP
	Supports IGMP Proxy
	Supports PPTP/L2TP/IPSec VPN Pass-through
	SNMP v1/v2c/v3 support, MIB I/II, Private MIB
Central Management*	**Applicable controllers: NMS-500/NMS-1000V, WS-1232P, WS-2864PVR**
***Remarks**: The feature will be supported through firmware/system upgrade.	
Environment & Certification	
Temperature	Operating: -20 ~ 55 degrees C Storage: -40 ~ 70 degrees C
Humidity	Operating: 10 ~ 90% (non-condensing) Storage: 5 ~ 95% (non-condensing)
Regulatory	CE, RoHS

3.3 Physical Specifications

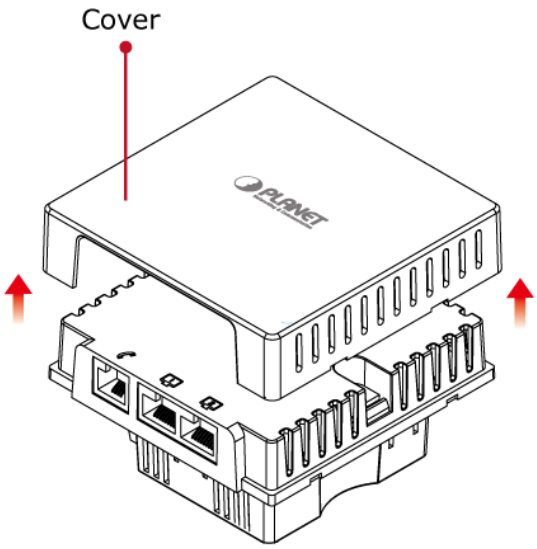
Dimensions (W x D x H)

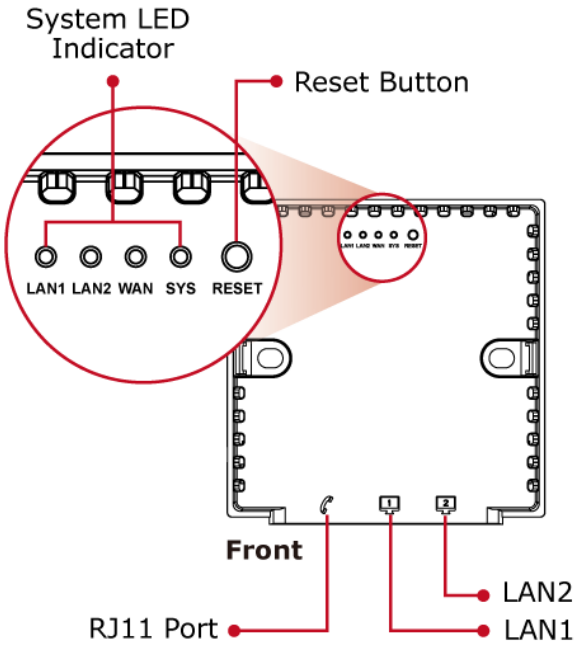
86 x 45 x 86 mm

Weight

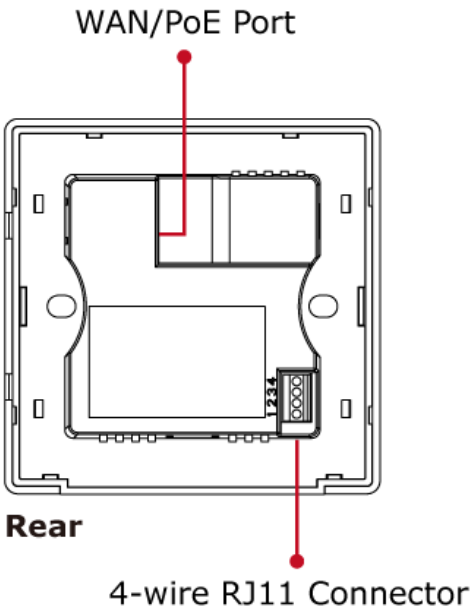
168 ±5g

Front Panel

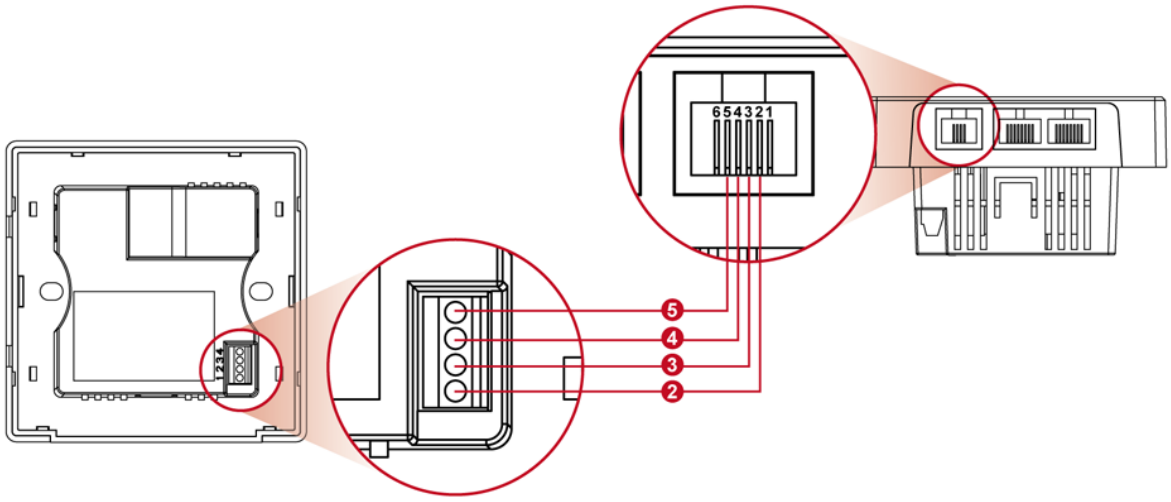




Rear Panel



4-wire RJ11 Connection diagram



LED definition

LED	STATE	FUNCTION
SYS	On	Power On
	Off	Power Off
WAN	On/Flash	WAN connected / data transmitting
	Off	WAN disconnected
LAN 1	On/Flash	LAN 1 connected / data transmitting
	Off	LAN 1 port disconnected
LAN 2	On/Flash	LAN 2 connected / data transmitting
	Off	LAN 2 port disconnected

Button definition

Object	Description
Reset	Press the Reset button for over 10 seconds and then release it to restore system to the factory default settings.

H/W Interface definition

Object	Description
PoE Port (802.3af/at PoE+)	10/100/1000Mbps RJ45 port, auto MDI/ MDI-X Connect PoE port to the IEEE 802.3af/at PoE+ switch to power on the device.
LAN 1-2 Port	10/100/1000Mbps RJ-45 port, auto MDI/ MDI-X Connect this port to the network equipment.
RJ11 Port	6P4C 4-wire standard Connect this port to digital phone or traditional phone.

3.4 Environmental Specifications

Temperature

Operating: -20 ~ 55 degrees C

Storage: -40 ~ 70 degrees C

Humidity

Operating: 10 ~ 90% (non-condensing)

Storage: 5 ~ 95% (non-condensing)

3.5 Regulatory Compliance

CE, RoHS

3.6 BASIC PACKAGING

- WDAP-W1200E x 1
- Screws x 2
- Quick Installation Guide x 1

3.7 PACKAGING INFORMATION

Box Dimensions (W x D x H)	120 x 110 x 65 mm
Weight	245 ±5g
Carton Dimensions (W x D x H)	590 x 350 x 275 mm
Weight	13.75kg
Carton Unit	50 pcs in one carton

APPENDIX: Default Settings

Device Name	WDAP-W1200E
IP Address	192.168.1.253
Subnet Mask	255.255.255.0
DHCP	Disabled
2.4GHz SSID	PLANET_2.4G
2.4GHz Channel	6
2.4GHz Channel List	FCC: 1~11 ETSI: 1~13
2.4GHz Channel Bandwidth	20MHz
2.4GHz Security	Disable
2.4GHz TX Power Percentage	100
5GHz SSID	PLANET_5G

5GHz Channel	FCC: 149 ETSI: 36
5GHz Channel List	FCC: 36, 40, 44, 48, 149, 153, 157, 161, 165 ETSI: 36, 40, 44, 48, 100, 104, 108, 112, 116, 132, 136, 140
5GHz Channel Bandwidth	40MHz
5GHz Security	Disable
5GHz TX Power Percentage	100
WMM Capable	Enable
Broadcast SSID	Enable
User Isolation	OFF
Time Zone	FCC: (GMT+8:00) ETSI: (GMT)