

Product Specifications

750Mbps 802.11ac In-wall Wireless Access Point

WDAP-W750E

Version 1.0

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Change History:

Revision	Date	Author	Change List
1.0	2019/06/25	Reyo	Preliminary

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

1. PRODUCT DESCRIPTION

All-in-One Manageable Dual-band Wi-Fi Solution for Hotel Industry

PLANET WDAP-W750E enables the hospitality industry to build a more high-speed wireless network with 802.1Q VLAN and PLANET AP controller. The WDAP-W750E is an **802.11ac Dual Band** In-wall Wireless Access Point that 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-W750E also provides stable **2.4GHz and 5GHz** wireless signals simultaneously that make access to internet viable in regard to whatever nature of work you are into.

Concurrent Dual Band and 11AC Wireless Range Extension

The WDAP-W750E conforms to IEEE 802.11a/b/g/n/ac Dual Band standard technology; therefore, it can provide a wireless speed of **up to 433+300Mbps**. With concurrent dual-band Wi-Fi transmission capability, the WDAP-W750E is more flexible than the traditional repeater that only utilizes single band for range extension in that it can quickly and easily extend high-speed 11ac 5GHz and 11n 2.4GHz wireless networks simultaneously.

Easy Deployment with PLANET AP Controller

To expand the capability of in-wall AP, PLANET WDAP-W750E 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-W750E helps hoteliers optimize their wireless network within minutes.

Modes Suitable for Any Room Installation without Spoiling Interior Design

Featuring attractive in-wall design, the WDAP-W750E 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-W750E 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.

Easy to Use ON/OFF and USB Charger

Having a good night sleep is what we need in the hotel. It is easy to turn ON/OFF wireless and LED on the front panel of the WDAP-W750E. When you don't need to use wireless LAN, just press the button to close the Wi-Fi and LED power. To provide better services for travelers, the WDAP-W750E comes with a built-in USB 2.0 charger whose output of 5V DC 0.5A power can charge any USB compliant mobile devices, e.g., cell phones, iPads, and other handheld devices. Thus, the WDAP-W750E brings convenience to pedestrians, travelers and other users without having to worry about forgetting to carry an AC adapter.

2. PRODUCT FEATURES

- **Standard Compliant Hardware Interface**
 - Compliant with IEEE 802.11ac wireless technology with data rate of up to 750Mbps
 - One 10/100BASE-TX port and one PoE powered device (PD) port
 - USB charger port for charging most of mobile devices easily
 - 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
 - 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 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 QCA9531+QCA9887
RAM	128MB SDRAM
Flash	16MB

3.2 FUNCTIONAL SPECIFICATIONS

Product	WDAP-W750E 750Mbps 802.11ac In-Wall Wireless Access Point with USB Charger	
Hardware Specifications		
Interfaces	LAN	1 x 10/100BASE-TX RJ45 port Auto-negotiation and auto MDI/MDI-X
	PoE Port	1 x 10/100Mbps auto MDI/MDI-X RJ45 port (rear panel) ※ IEEE 802.3af/at PD port
	USB Port	USB 2.0, Type A, 5V DC, 0.5A output
Antennas	Gain	2 x 2dBi antenna
Button	Reset button (Press over 15 seconds to reset the device to the factory default)	
LED Indicators	Wireless	
Dimensions (Φ x H)	86 x 35 x 86 mm	
Weight	106 ±5g	
Power Requirements	48V, 0.5A; IEEE 802.3af/at PoE+	
Power Consumption	<5W	
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	2.4G / 5G concurrent mode	
Frequency Range	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	

Operating Channels	FCC: 36, 40, 44, 48, 149, 153, 157, 161, 165 (9 channels) ETSI: 36, 40, 44, 48, 52, 56, 60, 64, 100, 104, 108, 112, 116, 132, 136, 140 (16 channels) 5GHz channel list will vary in different countries according to their regulations.	
RF Power	< 20dBm (EIRP)	
Receive Sensitivity	2.4GHz	5GHz
	802.11b 1Mbps: -88dBm 11Mbps: -85dBm 802.11g 6Mbps: -88dBm 54Mbps: -68dBm 802.11n MCS0/MCS8: -68dBm MCS7/MCS15/MCS7/MCS15: -68dBm 802.11n HT40 MCS0/MCS8: -93dBm MCS7/MCS15: -75dBm	802.11a 6Mbps: -92dBm 54Mbps: -75dBm 802.11n HT20 MCS0/MCS8: -91dBm MCS7/MCS15: -72dBm 802.11n HT40 MCS0/MCS8: -88dBm MCS7/MCS15: -70dBm 802.11ac VHT20 MCS0: -92dBm MCS8: -70dBm 802.11ac VHT40 MCS0: -89dBm MCS9: -65dBm 802.11ac VHT80 MCS0: -87dBm MCS9: -61dBm
Software Features		
LAN	Static IP	
	Supports IP-MAC binding	
Wireless Mode	<input type="checkbox"/> Access Point <input type="checkbox"/> Gateway <input type="checkbox"/> Repeater <input type="checkbox"/> WDS (PtP/PtMP)	
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 (50+50 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
System Management	Supports PLANET Hardware AP Controller/ Software AP Controller Applicable controllers[1]: WAPC-500/1000, SAPC,WS-1232P,WS-2864PVR and UNI-NMS.
	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
Remarks	1. ^ 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

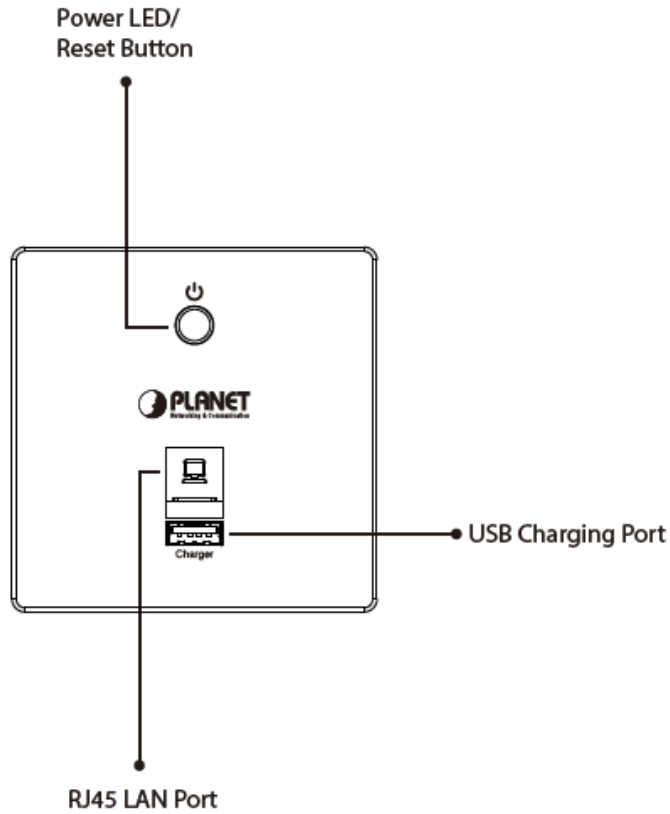
Dimensions

86 x 35 x 86 mm (W x D x H)

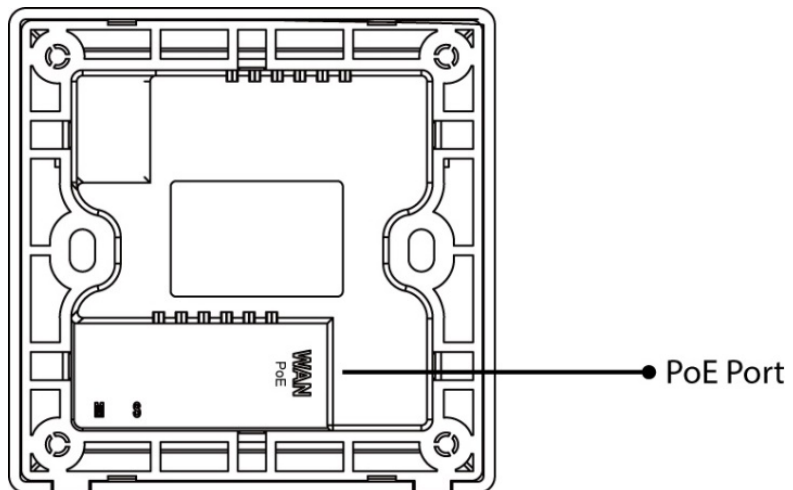
Weight

106 ±5g

Front Panel



Rear Panel



LED definition

LED	STATE	FUNCTION
Power	On	Press the button for one second to turn Wi-Fi on
	Off	Press the button for one second to turn Wi-Fi off

Button definition

Object	Description
Reset	Press the Reset button for over 15 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+)	10/100bps RJ45 port, auto MDI/ MDI-X Connect PoE port to the IEEE 802.3af/at PoE+ switch to power on the device.
LAN Port	10/100Mbps RJ-45 port, auto MDI/ MDI-X Connect this port to the network equipment.
USB Port	USB 2.0, Type A, 5V DC/0.5A output Connect this port to charge the mobile device.

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-W750E 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	181 ±5g
Carton Dimensions (W x D x H)	590 x 350 x 275 mm
Weight	10.5kg
Carton Unit	50 pcs in one carton

APPENDIX: Default Settings

Device Name	WDAP-W750E
IP Address	192.168.1.253
Subnet Mask	255.255.255.0
DHCP	Disabled
2.4G SSID	PLANET_2.4G
2.4G Channel	6
2.4G Channel List	FCC: 1~11 ETSI: 1~13
2.4G Channel Bandwidth	20MHz
2.4G Security	Disable
2.4G TX Power Percentage	100
5G SSID	PLANET_5G
5G Channel	FCC: 149 ETSI: 36
5G Channel List	FCC: 36, 40, 44, 48, 149, 153, 157, 161, 165 ETSI: 36, 40, 44, 48, 52, 56, 60, 64, 100, 104, 108, 112, 116, 132, 136, 140
5G Channel Bandwidth	40MHz
5G Security	Disable
5G TX Power Percentage	100
WMM Capable	Enable
Broadcast SSID	Enable
User Isolation	OFF
Time Zone	FCC: (GMT+8:00) ETSI: (GMT)