1750Mbps 802.11ac Dual Band Wall Mount Enterprise Wireless Access Point

Standard Compliant Hardware Interface

- Complies with IEEE 802.11ac (draft 2.0) and IEEE 802.11a/b/g/n standards
- 2 x 10/100/1000BASE-T port with PoE supporting 802.3at and 802.3af PSE (Power Sourcing Equipment)
- IEEE standard 802.3af/at PoE design

RF Interface Characteristics

- Features 2.4GHz (802.11b/g/n) and 5GHz (802.11a/n/ac) concurrent dual band for more efficiency of carrying high load traffic
- 3T3R MIMO technology for enhanced throughput and coverage
- Provides multiple adjustable transmit power control
- High speed up to 1.75Gbps (450Mbps for 2.4GHz + 1300Mbps for 5GHz) wireless data rate

Comprehensive Wireless Advanced Features

- Multiple Wireless Modes: AP,WDS PtP/ PtMP, and WDS Repeater
- Supports up to 32 multiple-SSIDs (2.4GHz + 5GHz) to allow users to access different networks through a single AP
- Supports VLAN function to limit the clients to access the specific internal network resource
- Supports WMM (Wi-Fi Multimedia) and wireless QoS to enhance the efficiency of multimedia application
- Supports wireless schedule to automatically enable or disable the wireless function based on predefined schedule

Secure Network Connection

- Advanced security: 64/128-bit WEP, WPA / WPA2, WPA-PSK / WPA2-PSK (TKIP/AES encryption) and 802.1x Radius Authentication
- Supports MAC address filtering

Easy Installation & Management

- Flexible deployment with standard 802.3at PoE/ PD supported
- Web-based configuration of HTTP/HTTPS/SSH/CLI
- SNMP-based management interface
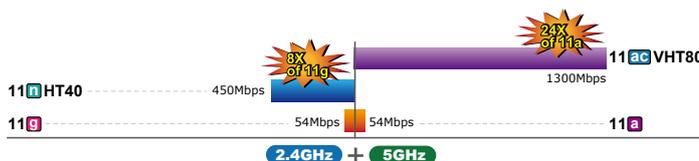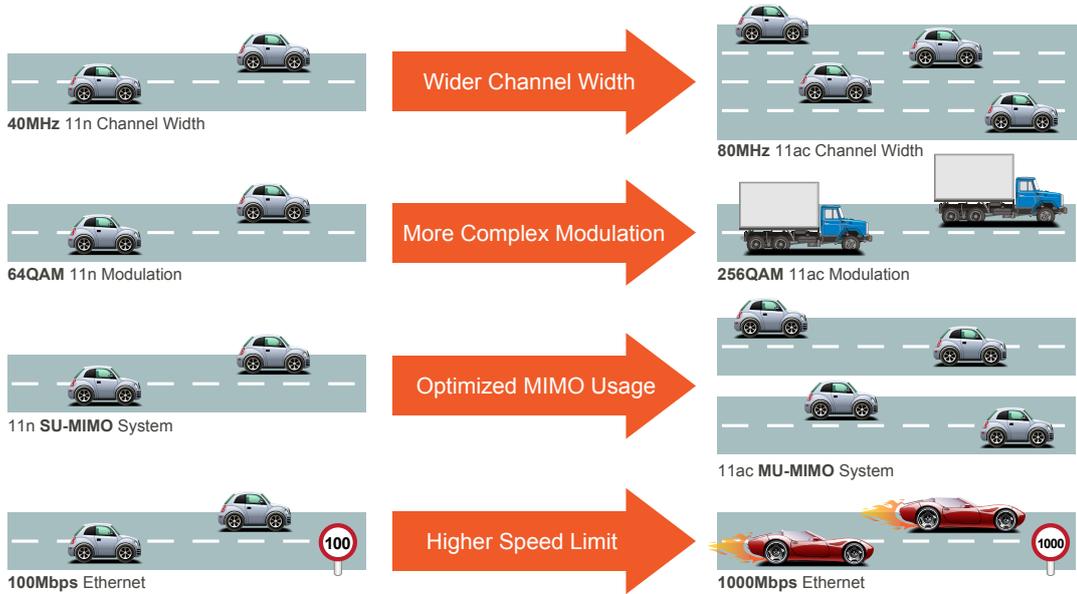- System status monitoring includes DHCP Client and System Log

Ultra-high-speed, Next-generation Enterprise Wireless

PLANET WDAP-1750AC is an enterprise PoE access point with the latest 802.11ac wireless technology, advanced management features and superior encryption standard yet cost-effective. Meeting enterprise demand, the WDAP-1750AC has enhanced security and management features including multiple SSIDs, IEEE 802.1Q VLAN, WPA / WPA2-enterprise security, RADIUS MAC authentication and so forth. With the multiple reversed-polarity SMA male antenna connectors, the WDAP-1750AC is able to connect its suitable external antenna and booster in such wireless environments as warehouses, campuses and enterprises.

Extraordinary 11ac Dual Band Wireless Technology

The WDAP-1750AC supports IEEE 802.11a/b/g/n/ac dual band standards with 3T3R MIMO technology; therefore, it provides the wireless speed up to 450+1300Mbps, which is 24X faster than the 11a access point at 5GHz frequency and 8X faster than the 11g access point at 2.4GHz frequency. The incredible wireless speed makes it ideal for handling multiple HD movie streams, high-resolution on-line games, stereo music, VoIPs and data streams at the same time stably and smoothly.

WDAP-1750AC Data Transmission Rates 1750Mbps

11ac Innovations Bring Excellent Data Link Speed

The WDAP-1750AC has 3 detachable highly-sensitive antennas which provide stronger signal and excellent coverage even in the wide-ranging or bad environment. With adjustable transmit power option, the administrator can flexibly reduce or increase the output power for various environments, thus reducing interference to achieve maximum performance. To provide extremely high-speed user experience, the WDAP-1750AC adopts IEEE 802.11ac technology to extend the 802.11n 40MHz channel binding to 80MHz and the implementation of 256-QAM modulation where higher transmitting/receiving rates go up to 1300Mbps in 5GHz less interference frequency band. In addition, the WDAP-1750AC is equipped with Gigabit LAN port to eliminate the restriction of 100Mbps Fast Ethernet wired connection to let users fully enjoy the high speed provided by wireless. The IEEE 802.11ac also optimizes MU-MIMO (Multi-User MIMO) mechanism to serve multiple devices simultaneously.
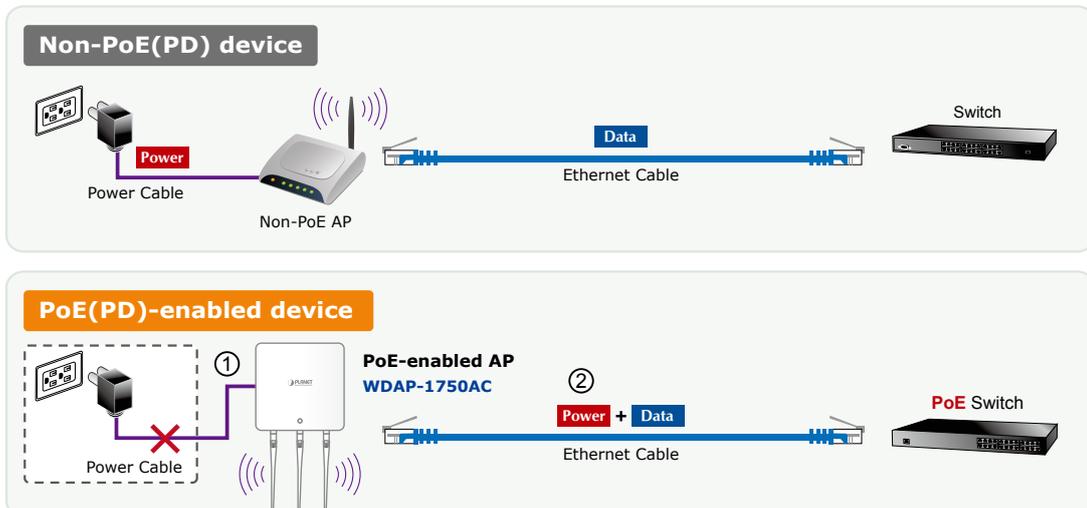
40MHz 11n Channel Width — Wider Channel Width — **80MHz** 11ac Channel Width

64QAM 11n Modulation — More Complex Modulation — **256QAM** 11ac Modulation

11n **SU-MIMO** System — Optimized MIMO Usage — 11ac **MU-MIMO** System

100Mbps Ethernet — Higher Speed Limit — **1000Mbps** Ethernet

Go faster in wired & wireless

Take Advantage of 11ac to Optimize Data Link Speed

Flexible Deployment with PoE Feature

Compliant with the IEEE 802.3at Power over Ethernet standard, the WDAP-1750AC can be powered and networked by a single UTP cable. It thus reduces the needs of extra cables and dedicated electrical outlets on the wall, ceiling or any other place where it is difficult to reach. The wireless network deployment becomes more flexible and worry-free from the power outlet locations. As it is a highly-reliable industrial wall-mount design, the WDAP-1750AC can be firmly installed on the wall conveniently.
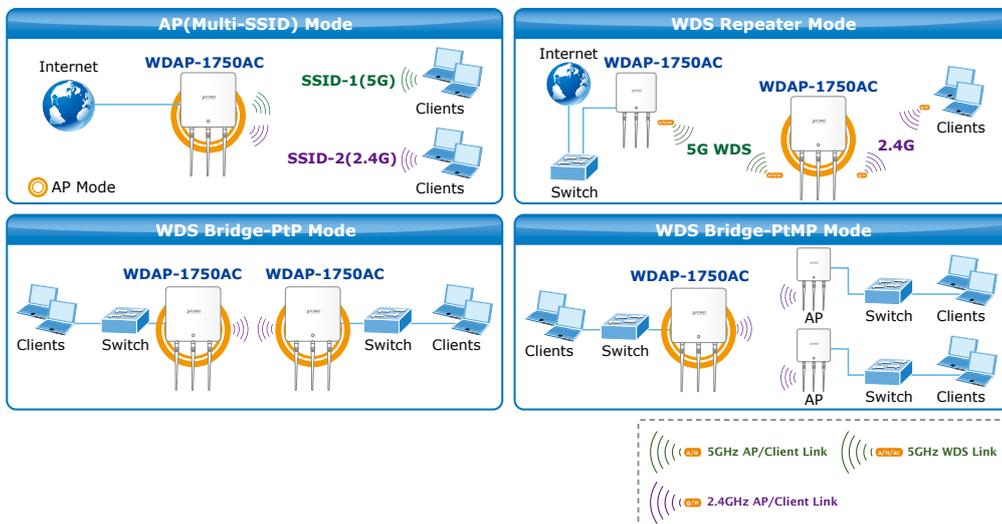
Non-PoE(PD) device

Power Cable — Non-PoE AP — Data — Ethernet Cable — Switch

PoE(PD)-enabled device

Power Cable — PoE-enabled AP WDAP-1750AC — Power + Data — Ethernet Cable — PoE Switch

Wireless Security Encryption and Wireless Value-added Features

In aspect of security, besides 64/128-bit WEP encryption, the WDAP-1750AC is integrated with WPA / WPA2, WPA-PSK / WPA2-PSK and 802.1x Radius authority to secure and protect your wireless LAN. It provides the wireless MAC filtering and SSID broadcast control to consolidate the wireless network security and prevent unauthorized wireless connection. Being an access point, the WDAP-1750AC supports the VLAN function to allow multiple SSIDs (32 sets of SSIDs) to access Internal VLAN topology. Moreover, its Wi-Fi Multimedia (WMM) mechanism provides enhanced QoS over wireless connection for better performance in multimedia transmission like on-line gaming and video streaming, which are classified as a top priority.

WDAP-1750

5GHz 802.11a/n/ac   2.4GHz 802.11b/g/n

Multiple Operation Modes for Various Applications

The WDAP-1750AC supports AP, WDS Bridge, and Repeater modes, through which it provides more flexibility for users when wireless network is established. Compared with general wireless access point, the WDAP-1750AC offers more powerful and flexible capability for wireless clients.

AP(Multi-SSID) Mode

Internet   WDAP-1750AC   SSID-1(5G) Clients   SSID-2(2.4G) Clients   AP Mode

WDS Repeater Mode

Internet   WDAP-1750AC   WDAP-1750AC   5G WDS   2.4G   Clients   Switch

WDS Bridge-PtP Mode

WDAP-1750AC   WDAP-1750AC   Clients   Switch   Switch   Clients

WDS Bridge-PtMP Mode

WDAP-1750AC   Clients   Switch   AP   Switch   Clients   AP   Switch   Clients

5GHz AP/Client Link   5GHz WDS Link
2.4GHz AP/Client Link

Easy Installation and Management

With user-friendly Web UI, the WDAP-1750AC is easy to install, even for users who never experience setting up a wireless network. Furthermore, with SNMP-based management interface, the WDAP-1750AC is convenient to be managed and configured remotely in a small business wireless network.
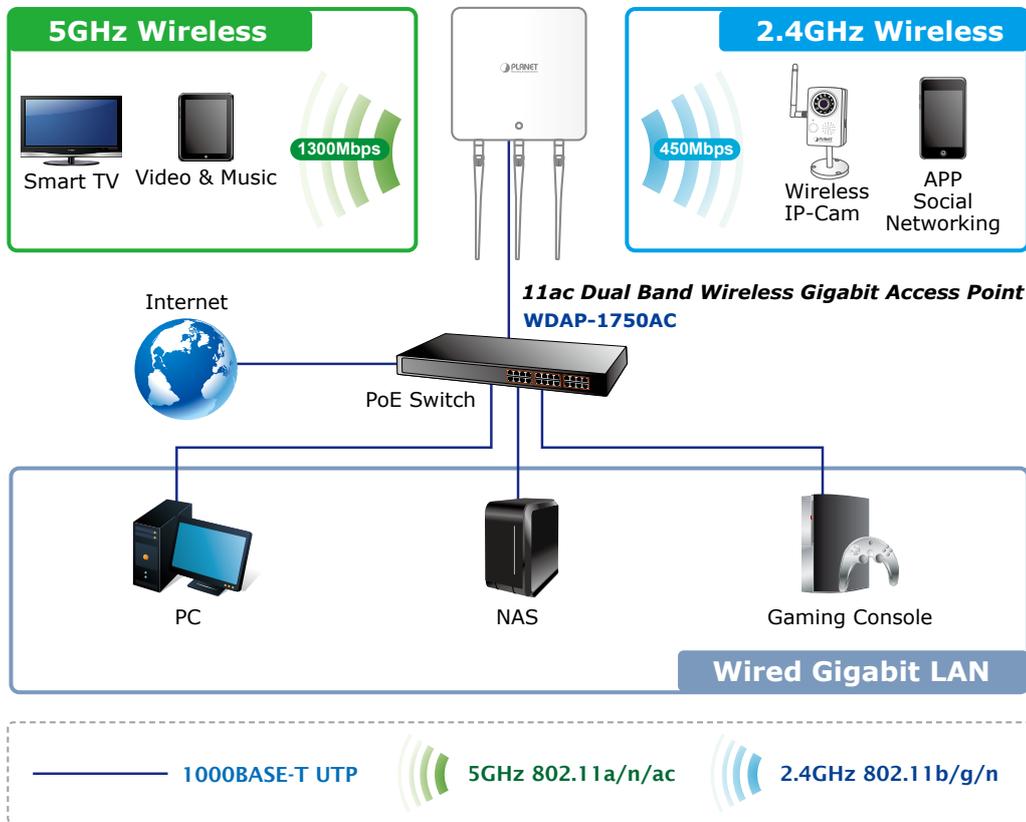
Applications

Wall-mount Design Perfect for Room Installation

The WDAP-1750AC is adopted with the latest 802.11ac technology to provide extreme high-speed wireless experience for users. With the stylish wall-mount design, you don't need to spend extra time and cost to deploy the wireless network. Its sleek and fashionable appearance adapted to the room can match any decor without affecting the original interior design. Furthermore, the WDAP-1750AC supports standard 802.3at PoE power scheme, effectively reducing the cabling cost. The WDAP-1750AC, with the SNMP supported, brings the most convenience to system administrators or machine operators. No expensive instruments or complex back-end subscriber managed systems are required for deployment.

Extreme High Speed and Dual Band Make Wi-Fi transmission More Powerful

The WDAP-1750AC delivers the dual band technology to avoid signal interference and ensure the best Wi-Fi performance. It allows you to check e-mail and surf the Internet via the 2.4GHz band and simultaneously watch high-definition (HD) video or any other multimedia application via 5GHz band. Moreover, the Gigabit Ethernet port of the WDAP-1750AC offers ultra-fast wired connections that utilize the maximum wireless bandwidth; therefore, users will have real wireless speed over 100Mbps. With outstanding stability of high-speed wireless transmission, the WDAP-1750AC can provide users with excellent experience in multimedia streaming with your mobile devices anywhere, anytime.

5GHz Wireless

Smart TV   Video & Music   1300Mbps

2.4GHz Wireless

450Mbps   Wireless IP-Cam   APP Social Networking

11ac Dual Band Wireless Gigabit Access Point
WDAP-1750AC

Internet

PoE Switch

PC   NAS   Gaming Console

Wired Gigabit LAN

——— 1000BASE-T UTP   5GHz 802.11a/n/ac   2.4GHz 802.11b/g/n

Secured and Managed Enterprise-class WLAN

With support for high-level encryption mechanism, the WDAP-1750AC can effectively prevent your information from eavesdropping by unauthorized users. Allowing multiple different SSIDs to be used simultaneously and cooperating with the VLAN support, the WDAP-1750AC helps network administrators define separate wireless subnets for various class-of-service and security policies.

Specifications

Model	WDAP-1750AC	
Hardware Specifications		
Interfaces	LAN	2 x 10/100/1000BASE-T RJ45 port Auto-negotiation and auto MDI/MDI-X
	Gain	3 x 2dBi SMA antenna
Reset Button	Press over 5 seconds to reset the device to factory default	
LED Indicators	PWR Allow LED to turn off via software control	
Material	Plastic	
Dimensions (W x D x H)	182 x 182 x 30 mm	
Weight	470g	
Power Requirements	POE: 802.3at PoE 12V DC, 4A	
Power Consumption	20W (without PSE)	
ESD Protection	±8kV air-gap discharge, ±4kV contact discharge	
Mounting	Wall mount /Desktop	
Wireless Interface Specifications		
Standard	IEEE 802.11ac (draft 2.0) 5GHz IEEE 802.11a/n 5GHz IEEE 802.11b/g/n 2.4GHz	
Antenna Structure	802.11ac: 3T3R MU-MIMO 802.11n: 3T3R MIMO	
Modulation	DSSS	
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	America/ FCC: 2.412~2.462GHz Europe/ ETSI: 2.412~2.484GHz
	5GHz	America/ FCC: 5.180~5.240GHz, 5.725~5.850GHz Europe/ ETSI: 5.180~5.240GHz
Operating Channels	2.4GHz	America/ FCC: 1~11 Europe/ ETSI: 1~13
	5GHz	America/ FCC: 36, 40, 44, 48, 149, 153, 157, 161, 165 Europe/ ETSI: 36, 40, 44, 48 * 5GHz channel list will vary in different countries according to their regulations.
Channel Width	802.11ac: 20/40/80MHz 802.11n: 20/40MHz	
Transmission Distance	802.11ac (draft): up to 30m 802.11n: up to 70m 802.11g: up to 30m **The estimated transmission distance is based on the theory. The actual distance will vary in different environments.**	

Receive Sensitivity	**5GHz:** 802.11ac (VHT20): -64dBm @MCS9 802.11ac (VHT40): -61dBm @MCS9 802.11ac (VHT80): -58dBm @MCS9 802.11n (HT20): -87dBm @MCS0, -67dBm @MCS7 802.11n (HT40): -84dBm @MCS0, -63dBm @MCS7 802.11a: -71dBm @54Mbps **2.4GHz:** 802.11n (HT20/40): -87dBm @MCS0 802.11n (HT20/40): -67dBm @MCS7 802.11g: -70dBm @54Mbps 802.11b: -90dBm @1Mbps

Software Features		
Wireless Mode	■ AP (Access Point) ■ Repeater (WDS + AP)	■ WDS PTP (Point to Point) ■ WDS PTMP (Point to Multipoint)

Encryption Security	■ WEP (64/128-bit) encryption security ■ WPA / WPA2 (TKIP/AES) ■ WPA-PSK / WPA2-PSK (TKIP/AES) ■ 802.1x Authenticator
Wireless Security	Wireless MAC address filtering Supports WPS (Wi-Fi Protected Setup) Enable/ Disable SSID Broadcast
Wireless Advanced	WMM (Wi-Fi Multimedia), Max. Associated Station Number Multiple SSIDs: up to 16 at 2.4GHz and 16 at 5GHz Wireless Isolation: Enable it to isolate each connected wireless client from communicating with each other WLAN L2 isolation (AP mode) Provides wireless statistics
Max. Clients	Wired: 253 2.4GHz Wireless: 50 5GHz Wireless: 50
LAN	Built-in DHCP server supporting static IP address distribution Supports UPnP Supports 802.1Q VLAN
System Management	Web-based (HTTP) management interface SNTP synchronization Easy firmware upgrade Supports scheduling reboot Supports Smart Discovery Utility

Standards Conformance	
IEEE Standards	IEEE 802.11ac (draft 2.0, 3T3R, up to 1300Mbps) IEEE 802.11n (3T3R, up to 450Mbps) IEEE 802.11g IEEE 802.11b IEEE 802.11i IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BASE-T IEEE 802.3x Flow Control
Other Protocols and Standards	CSMA/CA, CSMA/CD, TCP/IP, DHCP, ICMP, SNTP

Environment & Certification	
Temperature	Operating: 0 ~ 50 degrees C Storage: -20 ~ 60 degrees C
Humidity	Operating: 10 ~ 90% (non-condensing) Storage: 5 ~ 90% (non-condensing)
Regulatory	FCC, CE

Ordering Information

WDAP-1750AC	1750Mbps 802.11ac Dual Band Wall Mount Wireless Access Point

Related Wireless Products

WDAP-C7200AC	1200Mbps 802.11ac Dual Band Ceiling Mount Wireless Access Point
WDRT-1200AC	1200Mbps 802.11ac Dual Band Wireless Gigabit Router
WDRT-750AC	750Mbps 802.11ac Wireless Broadband Router
WDL-U600AC	433Mbps 802.11AC Dual Band Wireless USB Adapter
WNL-U556M	300Mbps 802.11n Wireless Micro USB Adapter
WNL-U554A	802.11n Wireless USB 2.0 Adapter External 3dBi Antenna

Related PoE Products

POE-161	IEEE 802.3at Gigabit High Power over Ethernet Injector (external power)
POE-163	IEEE 802.3at Gigabit High Power over Ethernet Injector (internal power)
WGSD-10020HP	8-Port 10/100/1000Mbps + 2 100/1000X SFP Managed 802.3at PoE Switch
WGSW-20160HP	16-Port 10/100/1000Mbps 802.3at PoE + 4-Port Gigabit TP / SFP Combo Managed Switch
WGSW-24040HP/ WGSW-24040HP4	24-Port 10/100/1000Mbps 802.3at PoE+ & 4-Port Shared SFP Managed Switch
XGSW-28040HP	L2+ 24-Port 10/100/1000Mbps 802.3at PoE + 4-Port 10G SFP+ Managed Switch
GSW-2400HPS	24-Port 10/100/1000Mbps 802.3at PoE+ Web Smart Ethernet Switch
GS-4210-24P2S	24-Port 10/100/1000Mbps 802.3at PoE + 2-Port 100/1000X SFP Managed Switch
HPOE-460	4-Port IEEE 802.3at High Power over Ethernet Injector Hub
IGS-10020HPT	Industrial 8-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Managed Switch with Wide Operating Temperature
IGS-504HPT	Industrial 5-Port Gigabit Switch w/ 4-Port 802.3at PoE+
IGS-624HPT	Industrial 4-Port 10/100/1000T 802.3at PoE+ & 2-Port 100/1000X SFP Ethernet Switch

WDAP-1750AC