

H3C WA530X Outdoor 802.11ac Wave 2 WLAN Access Point

Overview



H3C WA530X series AP is the latest-generation smart outdoor 802.11ac Wave 2 Access Point (AP) with large RF radiated power. It provides Gigabit Ethernet uplink which breaks the speed limit of Megabit and makes wireless multimedia application reality.

H3C WA530X is integrated with smart RF optimizing technology. The maximum transmit power of single RF is up to 500mW. It can address outdoor WLAN coverage problems and enhance accuracy and stability. Professional uni-body design and wide-temperature-range resistance make it convenient for outdoor installation and debugging. It's widely deployed for professional smart coverage in outdoor scenarios such as wireless city and scenic spot.

Features

Smart cloud access and optimal WLAN TCO

- WA530X series AP complies with 802.11ac Wave2 standard and features maximum two streams 867Mbps wireless transfer rate for 5GHz and total 1.267Gbps speed of combining 2.4GHz and 5GHz. With the advanced antenna array technology, it can increase the scope of coverage, improve access density and operation stability and provide a better mobile cloud access and wireless network total cost of ownership (TCO).

Gigabit SFP optical port

- Sometimes, 100-meter-long cable is not enough to connect a remote outdoor AP. WA530X series AP supports Gigabit SFP optical port and prevents from faulty of devices like optical modem.

Local forwarding

- When WA530X series AP runs in Fit mode and forwards packets through a wide area network (WAN), they are usually deployed as data access devices in branch offices, while wireless Access Controllers (ACs) are deployed in headquarter. All user data is sent from APs to AC, and centrally forwarded by the AC. WA530X series AP can

convert wireless packets to wired packets avoiding data packets sent through AC but forwarded locally, which significantly saves the WAN link bandwidth.

Dual IPv4/IPv6 protocol stacks (Native IPv6)

- WA530X series AP is fully compliant with IPv6 and implements a dual IPv4/IPv6 protocol stacks. Existing IPv4 and IPv6 wired networks can run in parallel and work seamlessly to register WLAN with WX series ACs, so that it never runs as an information silo.

End user Admission Domination (EAD)

- End user Admission Domination (EAD) integrates network access and endpoint security products, which ensure only complied wireless clients with mandated enterprise security policies to access the network, reducing threat levels from infected wireless clients and raising the bar and improving the overall security of the wireless network. When working with a security policy server, it can remind users, isolate and boot them off the network when their systems are infected or not patched properly.

Remote probing and analysis

- WA530X series AP can work as a remote probing and analysis sensor device. It can intercept WiFi packets nearby and save to a local device in real-time for troubleshooting and optimization analysis. Remote probing can conduct a non-convergent image for operating channels, or a polling of all channels to satisfy wireless network monitoring and maintenance requirements.

RF Optimizing Engine (ROE)

- WA530X series AP supports RF Optimizing Engine (ROE), which effectively increases the number of concurrent sessions in middle to high-density access, accomplishes streaming media application acceleration and QoS through character and protocol based RF optimization. Features include multi-user fairness, mixed access fairness, interference filtering, speed optimization, spectrum guide, IPv4/IPv6 multicast signal boost, per-packet power control and intelligent bandwidth guarantee.

Intelligent AP load balancing

- WA530X series AP comes with intelligent load balancing, which spreads the workload according to the number of concurrent users and traffic. If a new incoming user breaks the preset loading limit, AP will check the location of the wireless client in real-time, determine if nearby APs with smaller workload can provide access, and deny the user access only when such AP exists. What sets H3C intelligent load balancing apart from existing load balancing schemes is that it kicks in only if the user is located in an area with overlapping AP coverage, and prevents loss of access when the workload limit is reached but no backup AP exists. This maximizes wireless network capacity while preventing any erratic behavior in load balancing.

Unified management of wired and wireless networks

- Wireless Service Manager (WSM) of iMC provides unified management of wired and wireless networks, adding network management functions into existing wired network management systems. All WSM based wireless products can be managed through the open management protocol.
- WSM is SOA complied, modular based, fully expandable and evolving with the growing needs of network management. It offers a web-based management system and a simple and user-friendly management platform for wireless network administrators. When working in iMC and coupled with other modules, it also implements panel management wireless management, troubleshooting, performance monitoring, software version control, deployment configuration management and user access management.

Specifications

Hardware specifications

Features	WA530X
Weight(excluding mounting accessories)	1.8kg
Dimensions (excluding mounting accessories)	250 x 250 x 79.5mm
Fixed port	Two 10/100/1000M Ethernet ports One 1000M SFP port One Console port
Antenna	Built-in, directional
Operating frequencies	802.11ac/n/a : 5.725GHz-5.850GHz; 5.47~5.725GHz; 5.15~5.35GHz 802.11b/g/n : 2.4GHz-2.483GHz
Modulation	OFDM: BPSK@6/9Mbps, QPSK@12/18Mbps, 16-QAM@24Mbps, 64-QAM@48/54Mbps DSSS: DBPSK@1Mbps, DQPSK@2Mbps, CCK@5.5/11Mbps MIMO-OFDM (11n): MCS 0-15 MIMO-OFDM (11ac): MCS 0-9
Maximum transmit power	2400-2483MHz: 16dBm 5150-5350MHz: 10dBm 5470-5725MHz: 16dBm 5725-5850MHz: 17dBm
Adjustable power	1dBm
Power Source	802.3at PoE+ PoE Adapter(Optional)
Power consumption	≤25.5W
Protection degree	IP67
Operating temperature/storage	-40°C~55°C/-40°C~85°C

Features	WA530X
temperature	
Operating humidity/storage humidity	0% to 100% (non-condensing)
Safety compliance	IEC 60950-1, EN 60950-1, IEC 60950-22, EN 60950-22
EMC	EN 301489-1, EN 301489-17, EN 55032, EN 55024, EN 60601-1-2
Radio frequency certification	EN 300 328, EN 301 893
Health	EN 50385

Software specifications

Features	WA530X	
Positioning	Outdoor 802.11ac Wave2 dual band AP	
11ac Supported	Streams	2
	Operating frequency	5GHz
	80MHz mode	✓
	MU-MIMO	2x2:2
	867Mbps(PHY)	✓
	A-MPDU	✓
	A-MSDU	✓
	Maximum likelihood demodulation (MLD)	✓
	Maximal ratio combining (MRC)	✓
	Spatial-Time block coding (STBC)	✓
	Low-density parity check (LDPC)	✓
11n	Streams	2
	Operating frequencies	5GHz+2.4G
	40MHz	✓(Not recommended in 2.4GHz environments)
	400Mbps(PHY)	✓
	A-MPDU	✓
	Maximum likelihood demodulation (MLD)	✓
	Transmit Beamforming (TxBF)	✓
	Maximal ratio combining (MRC)	✓
	Spatial-Time block coding (STBC)	✓
	Low-density parity check (LDPC)	✓
WLAN basics	Maximum users per radio	256
	Virtual APs(5 recommended for each radio in real-world applications)	32

Features		WA530X
	open system/shared key authentication	✓
	Broadcast Probe acknowledge control	✓
	Mixed connection for WPA, WPA2 and Pre-RSNA users	✓
	RTS/CTS	✓
	CTS-to-self	✓
	Concealed SSID	✓
	STA related	STA offline anomaly check, STA aging, statistics and status query
WLAN extended	Limit user number	✓
	Link integrity check	✓
Security	Encryption	WEP-64/128/152bit, dynamic WEP, TKIP, CCMP(11n recommended)
		Multiple encryption key triggered dynamic unicast/multicast key update
	802.11i	✓
	Authentication	802.1X, MAC address authentication, PSK authentication, Portal (May need to work with H3C Access Controller depending on application)
	User Isolation	Supported: Layer 2 forwarding restriction Virtual AP (multiple SSIDs) isolation
	Forwarding security	Packet filtering, MAC address isolation
	SSID and VLAN binding	✓
	Wireless Intelligent Application Aware (wIAA)	✓
	wIPS	✓
802.11w	✓	
AAA	Radius Client	✓
	Multiple-domain authentication server	✓
	Backup authentication server	✓
Layer 2 and layer 3 features	IP address configuration	DHCP assigned IP(option 60)
	Native IPv6	✓
	IPv6 Portal	✓
	IPv6 SAVI	✓
	ACL	IPv4/IPv6
	Local forwarding	Local forwarding based on SSID+VLAN
	Multicast enhancement	IGMP Snooping/MLD Snooping

Features		WA530X
QoS	802.11e	Wi-Fi Multimedia (WMM)
	Priority	Ethernet port based 802.1p identification and marking priority
		Priority mapping for wired and wireless connection
	Strategic QoS mapping	Distinctive QoS strategies based on individual SSID/VLAN
	Layer 2 to Layer 4 packet filtering and traffic classification	✓
	CAR	✓
	User bandwidth management	Bandwidth allocation per STA, or all STAs sharing bandwidth with a common SSID
	Load balancing	User/traffic/radio (dual frequencies) based
	Spectrum Guide	✓
	Multicast enhancement	Multicast to Unicast (IPv4, IPv6)
	CAC(Call Admission Control)	User number/bandwidth based
	SVP Phone	Bandwidth allocation per STA, or all STAs sharing bandwidth with a common SSID
Per-packet power control (PPC)	✓	
Green features	Green AP mode	✓
	Dynamic MIMO power saving	✓
	Enhanced automatic power save delivery (E-APSD)	✓
	WMM Power Save	✓
Management and maintenance	Managed SSID	✓
	Log function	SYSLOG
	Remote probe analysis	✓

Ordering Information

Product ID	Product Description
EWP-WA530X-WW-FIT	H3C WA530X Internal Antennas 4 Streams Dual Radio 802.11ac/n Wave 2 Outdoor Access Point, FIT, WW
ADP060-55V-PoE-GL	H3C 55V 60W PoE Adapter Power Supply (optional)



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