

5GHz 802.11ac 900Mbps Outdoor Wireless CPE



Flexible and Reliable Outdoor Wireless Solution with Superior Performance

PLANET WBS-512AC 802.11ac WAVE 2 900Mbps Outdoor Wireless CPE offers a better range and excellent throughput than those of the traditional wireless device. With the standard IEEE 802.3at Power over Ethernet (PoE) design, the WBS-512AC can be easily installed in the areas where power outlets are not available. The WBS-512AC is definitely suitable for wireless IP surveillance, and bridge link of building to building and backbone of public service. Additionally, the self-healing capability keeps connection alive all the time. With the IP55-rated outdoor enclosure, the WBS-512AC can perform normally under rigorous weather conditions, meaning it can be installed in any harsh, outdoor environments.



Benefits of MU-MIMO under 802.11ac Wave 2

With the MU-MIMO Wave 2 technology, the WBS-512AC, 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 WBS-512AC 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.

Industrial Compliant Wireless LAN and LAN

- Compliant with the IEEE 802.11a/n/ac WAVE2 MU-MIMO wireless technology
- 2T2R architecture with data rate of up to 900Mbps
- Equipped with two 10/100/1000Mbps RJ45 ports with auto MDI/MDI-X supported

Fixed Network Broadband Router

- Supported WAN connection types: DHCP, Static IP, PPPoE
- Supports Port Forwarding and DMZ for various networking applications
- Supports DHCP server in Gateway/WISP mode

RF Interface Characteristics

- Built-in 14dBi dual-polarization antenna
- High output power with multiply-adjustable transmit power control

Outdoor Environmental Characteristics

- IP55 rating
- IEEE 802.3 at Power over Ethernet design
- Operating temperature: -20~70 degrees C

Multiple Operation Modes and Wireless Features

- Multiple operation modes: AP, Gateway, Repeater, Super 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
- Support Terminal Fast Roaming with 802.11k, 802.11v, and 802.11r

Secure Network Connection

- Full encryption supported: WPA/WPA2, WPA-PSK/WPA2-PSK and 802.1X RADIUS authentication
- Supports 802.1Q VLAN and SSID-to-VLAN mapping

Specifications

Product	WBS-512AC		
Hardware			
Standard Support	IEEE 802.11a/n/ac IEEE 802.11i IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3x flow control IEEE 802.11k, 802.11v, and 802.11r		
Dimensions (W x D x H)	87 x 38 x 260 mm		
Weight	405g		
Power Requirements	48V DC IN, 0.5A, IEEE 802.3 at PoE+ or 12V DC IN, 1.0A from DC Jack		
Power Consumption (max.)	< 10W		
	Wireless IEEE 802.11a/n/ac, 2T2R PoE: 1 x 10/100/1000BASE-TX, auto-MDI/MDIX, 802.3 at PoE In LAN: 1x 10/100/1000BASE-TX, auto-MDI/MDIX		
Interface	Wireless IEEE 802.11a/n/ac, 2T2R PoE: 1 x 10/100/1000BASE-TX, auto-MDI/MDIX, 802.3 at PoE In LAN: 1x 10/100/1000BASE-TX, auto-MDI/MDIX		
Button	Reset/Pair button, PtP Switch		
Antenna	Built-in 14dBi directional antenna with dual polarization		
	Half-power beam width	Vertical H: 70 V: 15	Horizontal H: 50 V: 15
Data Rate	IEEE 802.11a: up to 54Mbps IEEE 802.11n (20MHz): up to 150Mbps IEEE 802.11n (40MHz): up to 300Mbps IEEE 802.11ac (80MHz): up to 867Mbps		
Media Access Control	CSMA/CA		
Modulation	802.11 a/n/ac: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)		
Frequency Band	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, 100, 104, 108, 112, 116, 132, 136, 140 (12 channels) 5GHz channel list will vary in different countries according to their regulations		
Max. Transmit Power (dBm)	FCC: up to 25 ± 1dBm ETSI: < 20dBm (EIRP)		
Receiver Sensitivity (dBm)	Network Mode	Data Rate	Receive Sensitivity (dBm)
	802.11a	6Mbps	-92
		54Mbps	-75
	802.11n HT20	MCS0/MCS8	-91
		MCS7/MCS15	-72
	802.11n HT40	MCS0/MCS8	-88
		MCS7/MCS15	-70
	802.11ac VHT20	MCS0	-92
		MCS8	-70
	802.11ac VHT40	MCS0	-89
MCS9		-65	
802.11ac VHT80	MCS0	-87	
	MCS9	-61	
Hardware			
Operating Temperature	-20 ~ 70 degrees C		
Operating Humidity	5 ~ 90% (non-condensing)		
IP Level	IP55		
ESD Protection	± 8kV air-gap discharge ± 4kV contact discharge		
Surge Protection	± 4kV		
Regulatory	CE, RoHS		
Hardware			
LAN	Static IP/DHCP Supports IP-MAC binding		

WAN Type (GW/WISP mode)	<ul style="list-style-type: none"> • Static IP • Dynamic IP • PPPoE
Wireless Modes	<ul style="list-style-type: none"> • Access Point • Gateway • Repeater • Super WDS • WISP
Channel Width	20MHz, 40MHz, 80MHz
Encryption Type	64-/128-bit WEP, WPA, WPA-PSK, WPA2, WPA2-PSK, 802.1X
Wireless Security	Enable/Disable SSID Broadcast Wireless Max. 32 MAC address filtering User Isolation
Max. SSIDs	4
Max. Wireless Clients	64 per radio (50 is suggested, depending on usage)
Max. WDS Peers	4 (Up to 3 peers by using "One-click WDS")
Wireless QoS	Supports Wi-Fi Multimedia (WMM)
Wireless Advanced	Auto Channel Selection 5-level Transmit Power Control (Max. (100%), Efficient (75%), Enhanced (50%), Standard (25%), Min. (12.5%)) Client Limit Control, Coverage Threshold Wi-Fi channel analysis chart Fast Roaming(IEEE 802.11k, 802.11r, 802.11v)
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 up to 4 SSIDs
Self-healing	Supports auto reboot settings per day/hour
Management	Remote management through PLANET DDNS/Easy DDNS Configuration backup and restore 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: WAPC-500, WAPC-1000, NMS-500, NMS-1000V

Ordering Information

WBS-512AC	5GHz 802.11ac 900Mbps Outdoor Wireless CPE w/ MU-MIMO WAVE 2 (Built-in 14dBi Antenna)
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Related Products

WAP-552N	5GHz 802.11a/n 300Mbps Outdoor Wireless AP (IP67, 802.3at PoE, 2 x N-Type Connector)
WBS-502N	5GHz 802.11n 300Mbps Outdoor Wireless CPE (Built-in 15dBi Antenna)
WDAP-802AC	1200Mbps Dual Band 802.11ac Outdoor Wireless AP (IP68, 802.3at PoE+, 4 x N-Type connector)
BSP-360	Industrial Renewable Power 5-Port Gigabit Managed Switch/Router with 4-Port 802.3at PoE+

Accessories

CB-STP-25	25-meter STP Cat5 Cable
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