

Product Specifications

300Mbps 802.11n Ceiling-mount Wireless Access Point

WNAP-C3220E

Version 1.0

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Change History:

Revision	Date	Author	Change List
1.0	2018/01/04	Solo	Preliminary

Author	Solo	Editor:	Solo
Reviewed by:	Miki	Approved by:	Kent

1. PRODUCT DESCRIPTION

PLANET WNAP-C3220E 300Mbps 802.11n Wireless Access Point offers multiple operation modes and complies with 802.3af/at Power over Ethernet standard. Its compact housing and ceiling-mountable design make the WNAP-C3220E exquisite and easy to be mounted on the ceiling or wall of a hotel, office, restaurant, enterprise, house, hospital or any other place. This unique product also creates a secure, cost-effective and highly-scalable wireless LAN infrastructure that can extend wireless network coverage.

Comprehensive Wireless Operation Mode

The WNAP-C3220E supports multiple types of wireless connectivity such as **AP**, **Gateway**, **Repeater**, **WDS Point-to-Point (PtP)** and **WDS Point-to-Multipoint (PtMP)**, allowing users to comprehensively experience various applications. It also helps users to easily build wireless network and extend the wireless range of the existing wireless network.

Wireless Range Extender

To extend the coverage and eliminate the dead spot of wireless network in every place, the WNAP-C3220E supports repeater mode which can solve the incompatibility between brands and provides a high-speed, wide coverage. The built-in intelligent antennas offer 360 degrees of coverage with excellent performance.

Advanced, Secure and Rigorous Authentication

The WNAP-C3220E supports 128-bit WEP, WPA / WPA2, WPA-PSK and WPA2-PSK wireless encryptions, the advanced WPA2-AES mechanism and 802.1X RADIUS authentication, which can effectively prevent eavesdropping by unauthorized users or bandwidth occupied by unauthenticated wireless access. Furthermore, any users are granted or denied access to the wireless LAN network based on the ACL (Access Control List) that the administrator pre-established. For management purposes, the IEEE 802.1Q VLAN supported allows multiple VLAN tags to be mapped to multiple SSIDs to distinguish the wireless access.

Flexible Deployment with PoE Feature

Compliant with IEEE 802.3af/at Power over Ethernet standard, the WNAP-C3220E 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 which is difficult to reach. The wireless AP deployment becomes more flexible and worry-free from the power outlet locations.

Easy Installation and Management

With user-friendly Web UI and step-by-step Quick Setup Wizard, the WDAP-C7200E is easy to install, even for users who never experience setting up a wireless network. Furthermore, simply install our software controller, **PLANET SAPC (Smart AP Control)**, to deliver wireless profiles to multiple APs simultaneously, thus making the central management simple.

2. PRODUCT FEATURES

➤ **Wireless Standard Compliance**

- Compliant with IEEE 802.11n wireless technology with data rate of up to 300Mbps
- Backward compatible with 802.11b/g standard
- Supports IEEE 802.3af/at standard-based PoE or local AC power

➤ **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
RAM	64MB SDRAM
Flash	16MB

3.2 FUNCTIONAL SPECIFICATIONS

Product	WDAP-C3220E 300Mbps 802.11n Ceiling-mount Wireless Access Point		
Hardware Specifications			
Interfaces	LAN	1 x 10/100BASE-TX RJ45 port Auto-negotiation and auto MDI/MDI-X	
Antennas	Gain:	2 x 5dBi antenna	
Button	Reset button (Press over 15 seconds to reset the device to the factory default)		
LED Indicators	Power		
Dimensions (Φ x H)	159 x 45mm		
Weight	161 ±5g		
Power Requirements	48V 0.5A, IEEE 802.3af/at PoE+		
Power Consumption	< 5W		
Mounting	Ceiling mount		
Wireless Interface Specifications			
Standard	IEEE 802.11b/g/n 2.4GHz		
Media Access Control	CSMA/CA		
Data Modulation	Transmission/emission type: DSSS/OFDM Data modulation type: OFDM: BPSK, QPSK, 16-QAM, 64-QAM, DBPSK, DQPSK, CCK		
Frequency Range	FCC: 2.412~2.462GHz ETSI: 2.412~2.472GHz		
Operating Channels	FCC: 1~11 ETSI: 1~13		
RF Power	FCC: up to 25 ± 1.5dBm ETSI: < 20dBm (EIRP)		
Receive Sensitivity	Network Mode	Data Rate	Receive Sensitivity (dBm)
	2.4GHz		
	802.11b	1Mbps	-95
		11Mbps	-90
	802.11g	6Mbps	-92
		54Mbps	-72
	802.11n	MCS0/MCS8	-92
MCS7/MCS15		-70	

Software Features	
LAN	Static IP
	Supports IP-MAC binding
Wireless Mode	<ul style="list-style-type: none"> ■ Access Point ■ Gateway ■ Repeater ■ WDS (AP/Bridge/Station)
Channel Width	20MHz, 40MHz,
Encryption Security	64-/128-bit WEP, WPA, WPA-PSK, WPA2, WPA2-PSK, 802.1X
Wireless Security	Enable/Disable SSID Broadcast
	Wireless MAC address filtering
	User Isolation
Max. SSIDs	4
Max. Clients	64 per radio (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, SAPC
	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
	Remarks

Environment & Certification

Temperature	Operating: 0 ~ 40 degrees C Storage: -40 ~ 70 degrees C
Humidity	Operating: 10 ~ 90% (non-condensing) Storage: 5 ~ 90% (non-condensing)
Regulatory	CE, RoHS

3.3 Physical Specifications

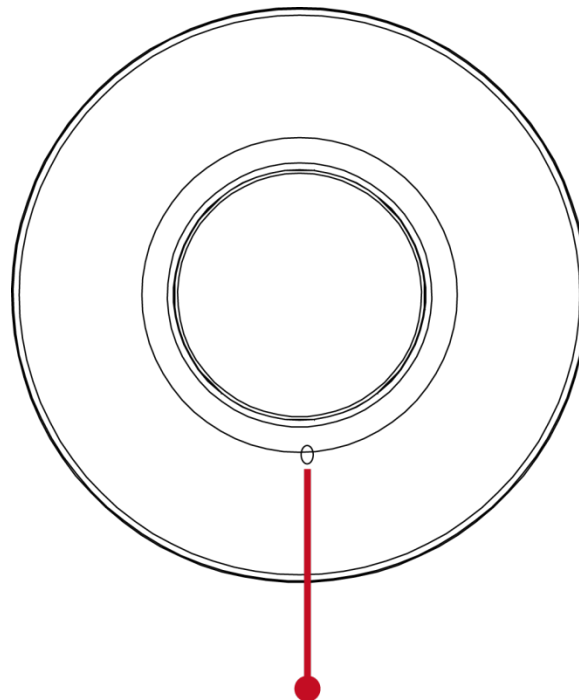
Dimensions

159 x 45mm (Φ x H)

Weight

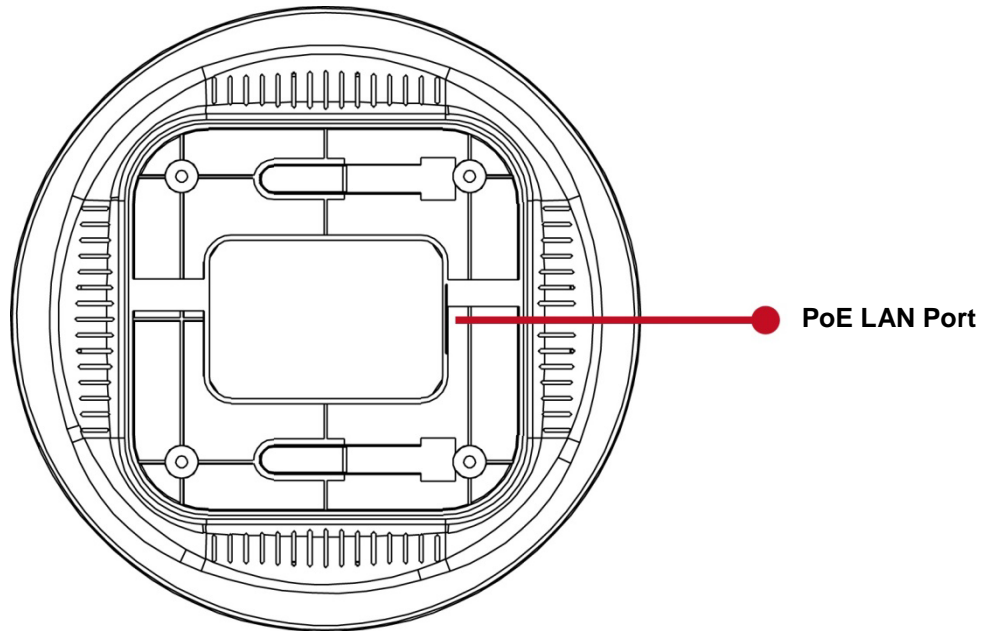
161 ±5g

Front Panel

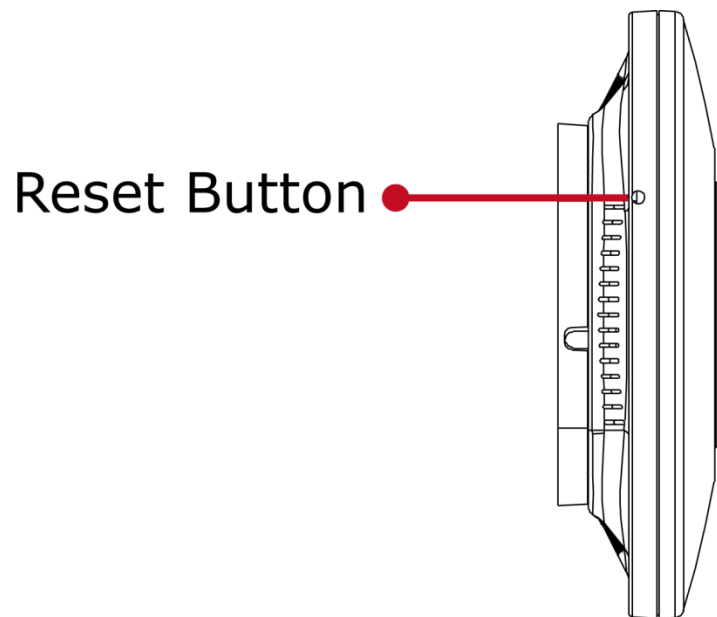


Power LED

Rear Panel



Side Panel



LED definition

LED	STATE	FUNCTION
PWR/SYS	On	Device power on
	Flash	System is working.
	Off	Device power 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.

3.4 Environmental Specifications

Temperature

Operating: 0 ~ 40 degrees C
Storage: -40 ~ 70 degrees C

Humidity

Operating: 10 ~ 90% (non-condensing)
Storage: 5 ~ 90% (non-condensing)

3.5 Regulatory Compliance

CE, RoHS, WEEE

3.6 BASIC PACKAGING

- WNAP-C3220E x 1
- Mounting Bracket x 1
- Mounting Kit x 1
- Ethernet Cable x 1
- Quick Installation Guide x 1

3.7 PACKAGING INFORMATION

Dimensions (W x D x H)	285 x 185 x 55 mm
Weight	386 ±5g

APPENDIX: Default Settings

Device Name	WNAP-C3220E
Operation Mode	AP mode
IP Address	192.168.1.253
Subnet Mask	255.255.255.0
DHCP	Disabled
Default SSID	PLANET_2.4G
Default Channel	6
Default Channel List	FCC: 1~11 ETSI: 1~13
Default Channel Bandwidth	20MHz
Default Security	Disable
Default TX Power Percentage	100
WMM Capability	Enable
SSID Broadcast	Enable
User Isolation	OFF
Time Zone	FCC: (GMT+8:00) ETSI: (GMT)