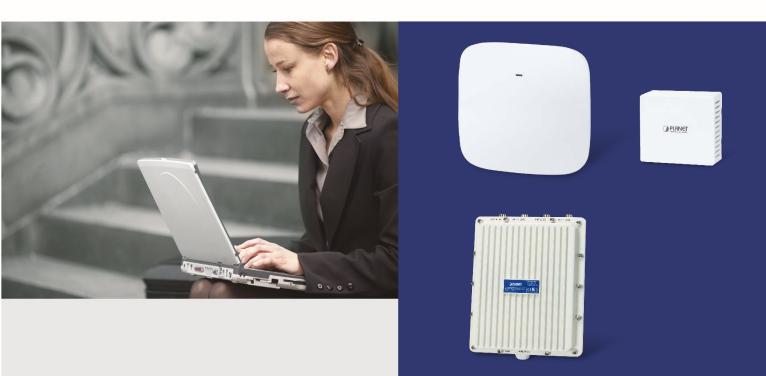


User's Manual

1200Mbps 802.11ac Wave 2 Dual Band Wireless Access Point w/802.3at PoE+

- WDAP-C7210E
- WDAP-W1200E
- WDAP-850AC



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Federal Communication Commission Interference Statement

FCC This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- 1. Reorient or relocate the receiving antenna.
- 2. Increase the separation between the equipment and receiver.
- 3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- 4. Consult the dealer or an experienced radio technician for help.

FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. To assure continued compliance, for example, use only shielded interface cables when connecting to computer or peripheral devices.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference
 - (2) This device must accept any interference received, including interference that may cause undesired operation.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

CE Compliance Statement

This device meets the RED 2014/53/EU requirements on the limitation of exposure of the general public to electromagnetic fields by way of health protection. The device complies with RF specifications when it is used at a safe distance of 20 cm from your body.

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

WEEE regulation



To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Revision

User Manual of PLANET 802.11ac Dual Band Ceiling-mount Wireless Access Point

Model: WDAP-C7210E/WDAP-W1200E/WDAP-850AC

Rev: 3.0 (Nov., 2021)

Part No. EM-WDAP-C7210E_WDAP-W1200E_WDAP-850AC _v1.1

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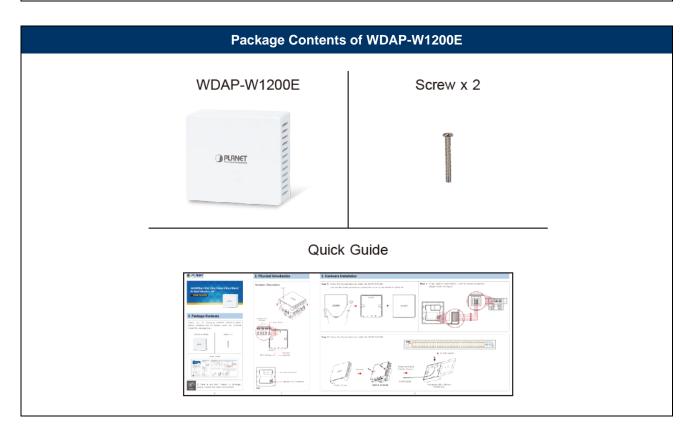


Chapter 1. Product Introduction

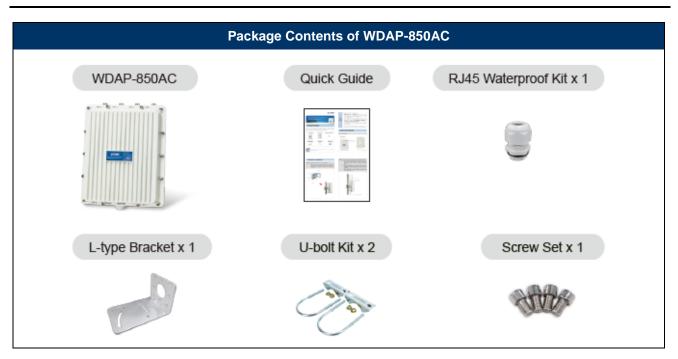
Package Contents

Thank you for choosing PLANET Wireless AP. Please verify the contents inside the package box.

1.	Package Contents	s of WDAP-C7210E
	WDAP-C7210E x 1	Quick Guide x 1
	-	CONTRACTOR OF A CONTRACTOR OF
	Ethernet Cable x 1	Mounting Kit









If there is any item missing or damaged, please contact the seller immediately.



Product Description (please refer to PLANET website for WDAP-W1200E

& WDAP-850AC information)

<mark>↓ IJIt</mark>ra-high-speed, Wave 2 MU-MIMO Wireless LAN Solution

PLANET WDAP-C7210E 1200Mbps Wave 2 Dual Band 802.11ac Wireless AP supports central management through PLANET NMS controllers. With IEEE 802.11ac Wave 2 MU-MIMO 2T2R dual-band technology, the WDAP-C7210E provides a maximum wireless speed of 867Mbps at 5GHz and 300Mbps at 2.4GHz.



PLANET NMS Controller

Benefits of MU-MIMO under 802.11ac Wave 2

With the MU-MIMO Wave 2 technology, the WDAP-C7210E, 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 WDAP-C7210E 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.

WAVE 1 SU-MIMO Serving one user at a time WAVE 2 **MU-MIMO** Serving multiple users simultaneously

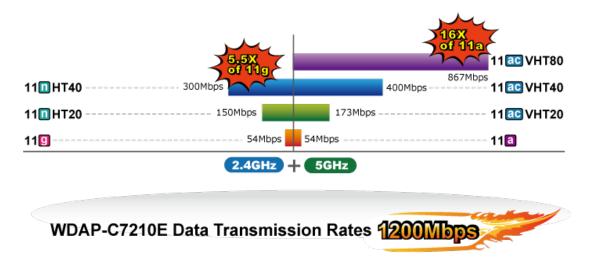






Powerful Dual-band WLAN Solution

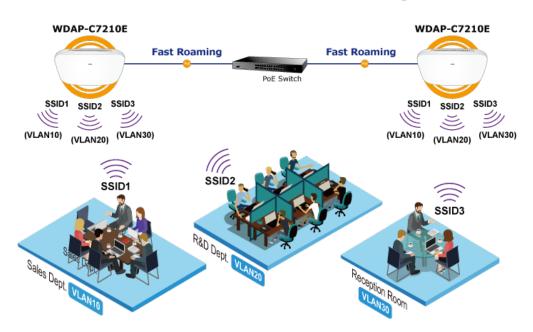
PLANET WDAP-C7210E, adopting the IEEE 802.11ac Wave 2 standard, provides a high-speed transmission of power and data, meaning two remote nodes in the **5GHz** frequency band can be bridged. The **2.4GHz** wireless connection can also be used simultaneously. Furthermore, the WDAP-C7210E adopts the high-class Qualcomm Atheros SoC (System-on-a-Chip), which provides higher stability to meet the stringent requirements of the solution.



Advanced Security and Rigorous Authentication

The WDAP-C7210E 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.

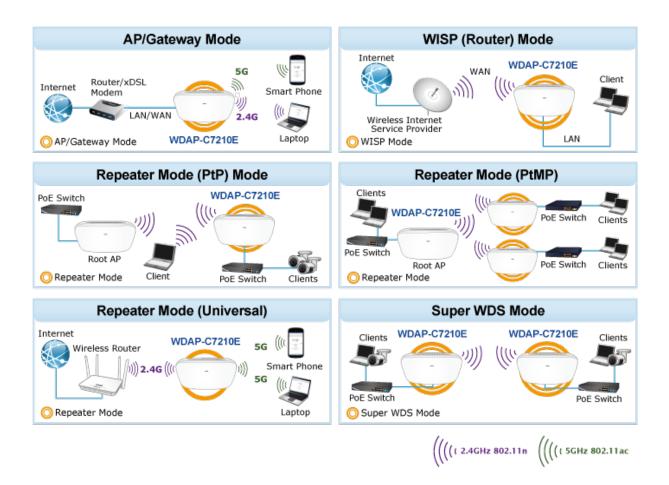
Multi-SSID + VLAN + Fast Roaming





Multiple Operation Modes for Various Applications

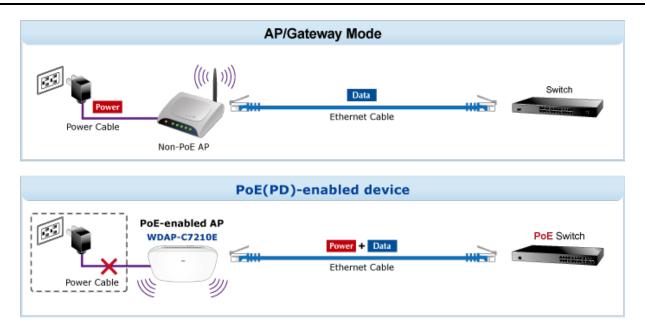
The WDAP-C7210E supports AP, Gateway, WISP, Repeater and Super WDS modes, through which it provides more flexibility for users when wireless network is established. Compared with general wireless access points, the WDAP-C7210E offers more powerful and flexible capability for wireless clients.



Ceiling-mount Design for Your Environment

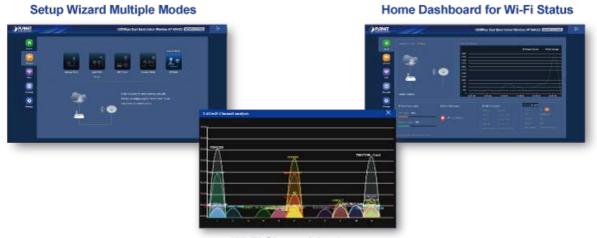
With the standard IEEE802.3at Power over Ethernet (PoE) design, the WDAP-C7210E can be easily installed in the areas where power outlets are not available. By supporting the standard IEEE 802.3at PoE PD power scheme, the WDAP-C7210E can be powered and networked by a single UTP cable, effectively eliminating the needs of dedicated electrical outlets on the ceiling and reducing the cabling cost. Furthermore, the system administrator is able to arrange the PoE schedule of the WDAP-C7210E by working with the managed PoE switch.





Optimized Efficiency in AP Management

The brand-new GUI configuration wizard helps the system administrator easily set up the WDAP-C7210E step by step. Besides, the built-in Wi-Fi analyzer provides real-time channel utilization to prevent channel overlapping to assure greater performance. With the automatic transmission power mechanism, distance control and scheduled reboot setting, the WDAP-C7210E is easy for the administrator to deploy and manage without on-site maintenance. Moreover, you can use PLANET NMS-500 or NMS-1000V AP control function to deliver wireless profiles to multiple APs simultaneously, thus making the central management simple.



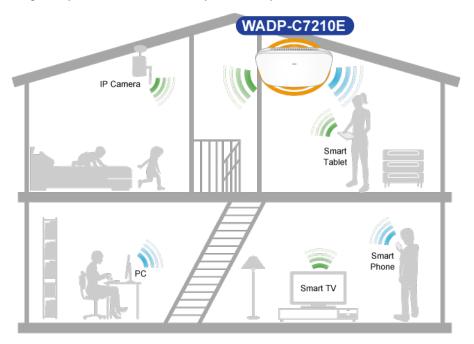
Wi-Fi Channel Analyzer



Applications

Extremely High-speed and Dual Band Make Wi-Fi Transmission More Powerful

The WDAP-C7210E delivers the dual band technology to avoid signal interference and ensure the best Wi-Fi performance. It allows you to check e-mails and surf the Internet via the 2.4GHz band and simultaneously watch high-definition (HD) video and any other multimedia application via 5GHz band. Moreover, the Gigabit Ethernet port of the WDAP-C7210E 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-C7210E can provide users with excellent experience in multimedia streaming with your mobile devices anywhere, anytime.

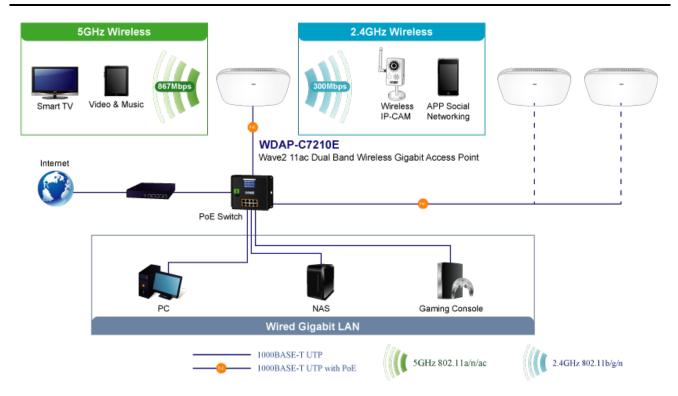


((5GHz 802.11a/n/ac





User Manual of WDAP-C7210E_WDAP-W1200E_WDAP-850AC





Product Features (please refer to PLANET website for WDAP-W1200E &

WDAP-850AC information)

1.2 Industrial Compliant Wireless LAN and LAN

- Compliant with the IEEE 802.11a/b/g/n/ac wireless technology
- Equipped with 10/100/1000Mbps RJ45 ports, auto MDI/MDI-X supported

RF Interface Characteristics

- 802.11ac Wave 2 2T2R MIMO architecture with data rate of up to 1200Mbps (300Mbps at 2.4GHz and 867Mbps at 5GHz)
- > High output power with multiply-adjustable transmit power control

Multiple Operation Modes and Wireless Features

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

Secure Network Connection

- Full encryption supported: 64-/128-bit WEP, WPA/WPA2, WPA-PSK/WPA2-PSK and 802.1X RADIUS authentication
- 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

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



Product Specifications

	WDAP-C	7210E		
Product	1200Mbps 802.11ac Wave 2 Dual Band Ceiling-mount Wireless Access Point			
Hardware Specifications	;			
Interfaces	LAN 2 x 10/100/1000BASE-T RJ45 port Auto-negotiation and auto MDI/MDI-X			
Antennas	Gain: 4 x Internal 5dBi antenna (2.4G x2, 5G x2)			
Reset Button	Reset button on the rear side (Press over 15 seconds to reset the device to factor			
	default)			
LED Indicators	SYS, 2.40			
Dimensions (W x D x H)		S x 35.8mm		
Weight	380 ±5g			
Power Requirements		N, 0.5A, IEEE 802.3at PoE+ or N, 1.5A from DC Jack (5.5 x 2.1mm)		
Power Consumption	< 12W			
Mounting	Ceiling M	ount		
Wireless Interface Speci	fications			
	IEEE 802	.11ac		
	IEEE 802	.11n		
	IEEE 802.11a			
	IEEE 802.11a IEEE 802.11b			
Standard	IEEE 802.11g IEEE 802.11i			
	IEEE 802.3 10BASE-T			
	IEEE 802.3 100ASE-T			
	IEEE 802.3ab 1000BASE-T			
	IEEE 802.3x flow control			
		.11k, 802.11v, and 802.11r		
Media Access Control	CSMA/CA	4		
	802.11ac	: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)		
Data Modulation	802.11a/g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM)			
	802.11b: DSSS (DBPSK / DQPSK / CCK)			
Band Mode	2.4G / 5G concurrent mode			
	2.4GHz:			
	FCC: 2.412~2.462GHz			
	ETSI: 2.412~2.472GHz			
Frequency Range				
	5GHz:			
		80~5.240GHz, 5.745~5.825GHz		
		80~5.700GHz		
	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)			
Operating Channels	ET31. 30, 40, 44, 40, 100, 104, 100, 112, 110, 132, 130, 140 (12 Channels)			
	5GHz cha	annel list may vary in different countries according to their regulations.		
Max. Transmit Power				
	•			



(dBm)	ETSI: < 20dBm (El	IRP)			
	Network Mode	Data Rate	Receive Sensitivity (dBm)		
	2.4GHz	1			
	802.11b	1Mbps	-99		
	002.115	11Mbps	-92		
	802.11g	6Mbps	-95		
	602.11g	54Mbps	-82		
	802.11n HT20	MCS0/MCS8	-95		
	602.111 H120	MCS7/MCS15	-77		
		MCS0/MCS8	-93		
	802.11n HT40	MCS7/MCS15	-75		
	5GHz				
Receive Sensitivity	802.112	6Mbps	-92		
	802.11a	54Mbps	-75		
		MCS0/MCS8	-91		
	802.11n HT20	MCS7/MCS15	-72		
		MCS0/MCS8	-88		
	802.11n HT40	MCS7/MCS15	-70		
		MCS0	-92		
	802.11ac VHT20	MCS8	-70		
		MCS0	-89		
	802.11ac VHT40	MCS9	-65		
	902 44ee VUT90	MCS0	-87		
	802.11ac VHT80	MCS9	-61		
Software Features					
	Static IR / Dynami				
LAN		Static IP / Dynamic IP			
	Supports IP-MAC	binding			
	Static IP				
WAN	Dynamic IP DPDoE				
		■ PPPoE			
	Access Point				
Wireless Mode	 Gateway WISP 				
	■ Repeater				
	■ Super WDS				
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 max. 32 MAC addresses 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)		
	Auto Channel Selection		
	5-level Transmit Power Control (Max.100%, Efficient 75%, Enhanced 50%, Standard		
Wireless Advanced	25% or Min. 12.5%)		
Wireless Auvaliceu	Client Limit Control, Coverage Threshold		
	Wi-Fi channel analysis chart		
	Fast Roaming		
	Device status, Wireless client List		
Status Manitaring	PLANET Smart Discovery		
Status Monitoring	DHCP client table		
	System Log supports remote syslog server		
VLAN	IEEE 802.1Q VLAN (VID: 3~4094)		
VLAN	SSID-to-VLAN mapping up to 4 SSIDs		
Self-healing	Supports auto reboot settings per day/hour		
	Remote management through PLANET DDNS/ Easy DDNS		
	Configuration backup and restore		
Managamant	Supports UPnP		
Management	Supports IGMP Proxy		
	Supports PPTP/L2TP/IPSec VPN Pass-through		
	SNMP v1/v2c/v3 support, MIB I/II, Private MIB		
Central Management ^[1]	Applicable controllers: NMS-500, NMS-1000V		
Remarks [1]: The feature	will be supported through firmware/system upgrade.		
Environment & Certifica	tion		
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		



Product	WDAP-W1200E Dual Band 802.11ac 1200Mbps Wave 2 In-wall Wireless Access Point (EU Type, 802.3af/at)		
Hardware Specifications			
	LAN	2 x 10/100/1000BASE-T RJ45 port Auto-negotiation and auto MDI/MDI-X	
Interfaces	PoE Port	1 x 10/100/1000Mbps auto MDI/MDI-X RJ45 port (rear panel) X IEEE 802.3af/at PD port	
	RJ11 Port	Six-position four-conductor (6P4C) modular jack	
Antennas	Gain	4 x 2dBi antenna	
Button		on (Press over 10 seconds to reset the device to the factory default)	
LED Indicators	LAN1/LAN2	2/WAN/SYS	
Dimensions (W x D x H)	86 x 45 x 8	6 mm	
Weight	168 ± 5g		
Power Requirements	48V DC IN,	0.5A, IEEE 802.3af/at PoE+	
Power Consumption	< 8W		
Mounting	In-wall mou	int	
Wireless Interface Specificat	ions		
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	2.4GHz / 5GHz 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		2~2.472GHz 0~5.240GHz, 5.745~5.825GHz	
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.		
RF Power	<20dBm (EIRP)		
	Network M	ode Data Rate Receive Sensitivity (dBm)	
Receive Sensitivity	2.4GHz		



User Manual of WDAP-C7210E_WDAP-W1200E_WDAP-850AC

		1Mbps	-88	
	802.11b	11Mbps	-85	
	802.11g	6Mbps	-88	
		54Mbps	-68	
	802.11n	MCS0/MCS8	-68	
		MCS7/MCS15	-68	
		MCS0/MCS8	-93	
	802.11n HT40	MCS7/MCS15	-75	
	5GHz			
	802.11a	6Mbps	-92	
	802.11a	54Mbps	-75	
		MCS0/MCS8	-91	
	802.11n HT20	MCS7/MCS15	-72	
		MCS0/MCS8	-88	
	802.11n HT40	MCS7/MCS15	-70	
		MCS0	-92	
	802.11ac VHT20	MCS8	-70	
	802.11ac VHT40	MCS0	-89	
		MCS9	-65	
		MCS0	-87	
	802.11ac VHT80	MCS9	-61	
Software Features				
	Static IP/DHCP Client			
LAN	Supports IP-MAC binding			
	Static IP			
WAN	■ Dynamic IP			
	■ PPPoE			
	Access Point			
Minelese Mede	Gateway			
Wireless Mode	 WISP Repeater 			
	 Repeater Super WDS 			
Channel Width 20MHz, 40MHz, 8				
Encryption Security	64-/128-bit WEP, WPA, WPA-PSK, WPA2, WPA2-PSK, 802.1X			
	Enable/Disable SSID Broadcast			
Wireless Security	Wireless – filtering of max. 32 MAC addresses			
	User Isolation			
Max. SSIDs	8 (4 per radio)			
Max. Clients	128 (100 is suggested, depending on usage)			



Max. WDS Peers	4	
Wireless QoS	Supports Wi-Fi Multimedia (WMM)	
	Auto channel selection	
	5-level transmit power control (100%, 75%, 50%, 25%, 12.5%)	
Wireless Advanced	Client limit control, coverage threshold	
	Wi-Fi channel analysis chart	
	Fast Roaming	
	Device status, wireless client list	
Status Monitoring	PLANET Smart Discovery	
Status Monitoring	DHCP client table	
	System Log supports remote syslog server	
VLAN	IEEE 802.1Q VLAN (VID: 3~4094)	
VLAN	SSID-to-VLAN mapping to up to 4 SSIDs	
Self-healing	Supports auto reboot settings per day/hour	
	Remote management through PLANET DDNS/Easy DDNS	
	Configuration backup and restoration	
Management	Supports UPnP	
Management	Supports IGMP Proxy	
	Supports PPTP/L2TP/IPSec VPN Pass-through	
	SNMP v1/v2c/v3 support, MIB I/II, Private MIB	
Central Management*	Applicable controllers: NMS-500/NMS-1000V, WS-1232P, WS-2864PVR	
*Remarks: The feature will be supported through firmware/system upgrade.		
Environment & Certification		
Termoereture	Operating: -20 ~ 55 degrees C	
Temperature	Storage: -40 ~ 70 degrees C	
Humidity	Operating: 10 ~ 90% (non-condensing)	
numulty	Storage: 5 ~ 95% (non-condensing)	
Regulatory	CE, RoHS	



Product	WDAP-850AC 1200Mbps Dual Band 802.11ac Wave 2 Outdoor Wireless AP		
Hardware			
	IEEE 802.11ac		
	IEEE 802.11n		
	IEEE 802.11a		
	IEEE 802.11b		
Standard Support	IEEE 802.11g		
	IEEE 802.11i		
	IEEE 802.3 10BASE-T		
	IEEE 802.3u 100BASE-TX		
	IEEE 802.3ab 1000BASE-T		
	IEEE 802.3x flow control		
Material	Aluminum		
Dimensions (W x D x H)	231 x 80 x 295 mm		
Weight	2.3kg		
Power Requirement	48V 0.5A, IEEE 802.3at PoE+		
Power Consumption (max.)	< 30W		
Mounting Type	Mast mounting		
la fasta a	Wireless IEEE802.11a/b/g/n/ac, 2T2R		
Interface	PoE WAN: 1 x 10/100/1000BASE-T, auto-MDI/MDIX, 802.3at PoE In		
Button	Reset button		
Antenna	Built-in four N-type connectors		
	IEEE 802.11b: up to 11Mbps		
	IEEE 802.11a/g: up to 54Mbps		
	IEEE 802.11n (20MHz): up to 150Mbps		
Data Rate	IEEE 802.11n (40MHz): up to 300Mbps		
	802.11ac (VHT20): Up to 173.3Mbps		
	802.11ac (VHT40): Up to 400Mbps		
	802.11ac (VHT80): Up to 867Mbps		
Media Access Control	CSMA/CA		
	802.11ac: OFDM (BPSK/ QPSK/ 16QAM/ 64QAM/ 256QAM)		
Modulation	802.11a/g/n: OFDM (BPSK/ QPSK/ 16QAM/ 64QAM)		
	802.11b: DSSS (DBPSK/ DQPSK/ CCK)		
	2.4GHz:		
	FCC: 2.412~2.462GHz		
	ETSI: 2.412~2.472GHz		
Frequency Band			
	5GHz:		
	FCC: 5.180~5.240GHz, 5.745~5.825GHz		
	ETSI: 5.180~5.700GHz		



	2.4GHz:			
Operating Channels	FCC: 1~11 Channels			
	ETSI: 1~13 Channe	-		
		15		
	5GHz:			
		, 149, 153, 157, 161,	165 (9 Channels)	
			116, 132, 136, 140 (12 Channels)	
		, 100, 101, 100, 112,	110, 102, 100, 110 (12 0114111010)	
	5GHz channel list may vary in different countries depending on their			
	regulations.			
	FCC: up to 29 + 1dBm			
Max. Transmit Power (dBm)	ETSI: < 20 dBm (EIRP)			
	Network Mode	Data Rate	Receive Sensitivity (dBm)	
	2.4GHz			
		1Mbps	-99	
	802.11b	11Mbps	-92	
		6Mbps	-95	
	802.11g	54Mbps	-82	
		MCS0/MCS8	-95	
	802.11n HT20	MCS7/MCS15	-77	
		MCS0/MCS8	-93	
	802.11n HT40	MCS7/MCS15	-75	
Receiver Sensitivity	5GHz			
	000.44	6Mbps	-92	
(dBm)	802.11a	54Mbps	-75	
		MCS0/MCS8	-91	
	802.11n HT20	MCS7/MCS15	-72	
		MCS0/MCS8	-88	
	802.11n HT40	MCS7/MCS15	-70	
		MCS0	-92	
	802.11ac VHT20	MCS8	-70	
		MCS0	-89	
	802.11ac VHT40	MCS9	-65	
	802.11ac VHT80	MCS0	-87	
		MCS9	-61	
Environment & Certification				
Operating Temperature	-40~70 degrees C			
Operating Humidity	10~90% (non-conde	ensing)		
IP Level	IP67			
ESD Protection	±8kV air gap discha	rge		
	±4kV contact discharge			
Surge Protection	±20kV			
Regulatory	CE, RoHS			



LAN	Static IP / DHCP Client		
LAN	Supports IP-MAC binding		
	■ Static IP		
WAN Type (GW/WISP mode)	Dynamic IP		
	■ PPPoE		
	Access Point		
Wireless Modes	■ Gateway		
	■ Repeater		
	■ Super WDS		
	■ WISP		
Channel Width	20MHz, 40MHz, 80MHz		
Encryption Type	64-/128-bit WEP, WPA, WPA-PSK, WPA2, WPA2-PSK, 802.1X		
Winslage Oserviter	Enable/Disable SSID Broadcast		
Wireless Security	Wireless MAC address filtering		
	User Isolation		
Max. SSIDs	8 (4 per radio)		
Max. Wireless Clients	128 (64 per radio)		
Max. WDS Peers	4		
Wireless QoS	Supports Wi-Fi Multimedia (WMM)		
	Auto channel selection		
	5-level transmit power control (100%, 75%, 50%, 25% and 12.5%)		
Wireless Advanced	Client limit control, coverage threshold		
	Distance control (Auto Ack Timeout)		
	Wi-Fi channel analysis chart		
	Device status, wireless client List		
Status Monitoring	PLANET Smart Discovery		
Status Monitoring	DHCP client table		
	System Log supports remote syslog server		
VLAN	IEEE 802.1Q VLAN (VID: 3~4094)		
VLAN	SSID-to-VLAN mapping up to 4 SSIDs		
Self-healing	Supports auto reboot settings per day/hour		
	Supports PLANET Hardware AP Controller Ap		
	controllers ^[1] :WS-1232P/WS-2864PVR/NMS-500/NMS-1000V		
	Remote management through PLANET DDNS/ Easy DDNS		
	Configuration backup and restoration		
Management	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		



Chapter 2. Hardware Installation

Product Outlook

WDAP-C7210E

- Dimensions: 186 x 186 x 35.8mm
- 2.1 Weight: 380 ±5g
- Triple Viewing



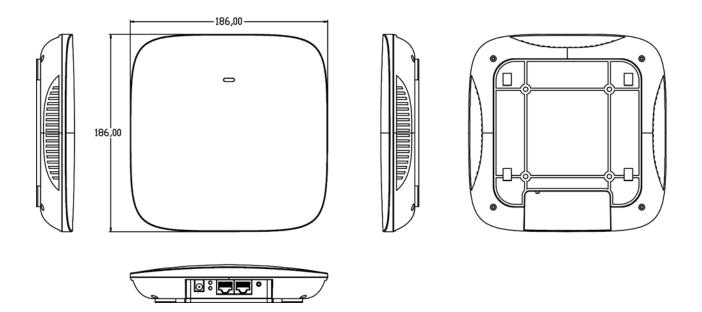


Figure 2-1 WDAP-C7210E Triple Viewing



Front Panel

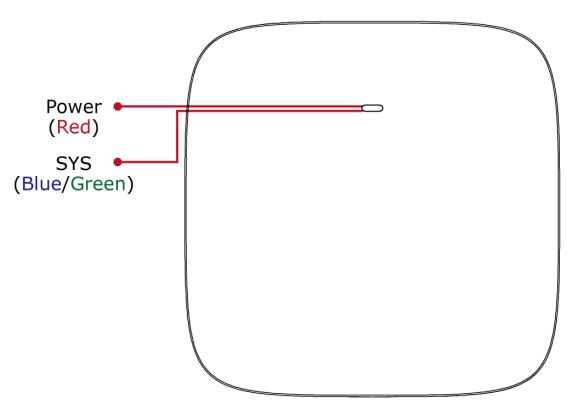


Figure 2-2 WDAP-C7210E Front Panel

LED Definition

LED	STATUS	FUNCTION
PWR	On (Red)	The access point is on.
PWK	Off	System is operating.
	On	Wireless LAN is initializing.
SYS	Blinking (Blue/Green)	2.4GHz/5GHz wireless LAN is working.



Rear Panel

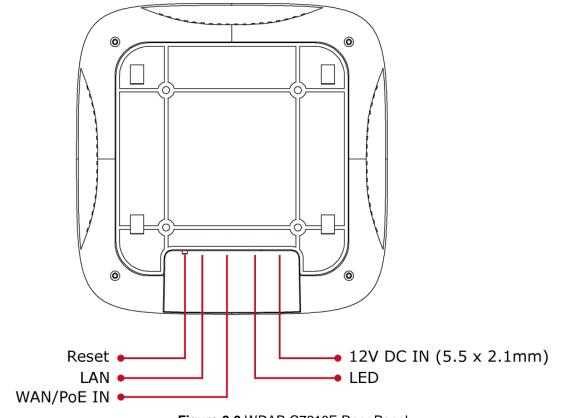
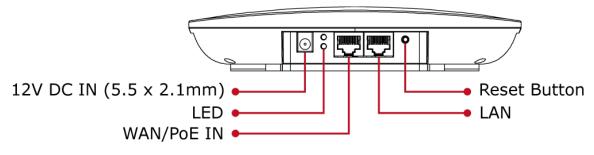
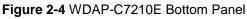


Figure 2-3 WDAP-C7210E Rear Panel

Bottom Panel





Port definition

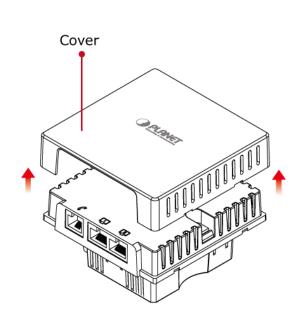
Object	Description
12V DC	12V DC port for the power adapter(DC-Jack 5.5 x 2.1mm)
LED	The access point is on.
PoE	LAN port with Power over Ethernet (PoE) IN
LAN	LAN port connecting to the network equipment.
Popot	To restore to the factory default setting, press and hold the Reset Button for
Reset	about 15 seconds, and then release it.

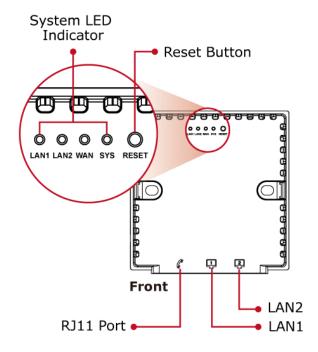


WDAP-W1200E

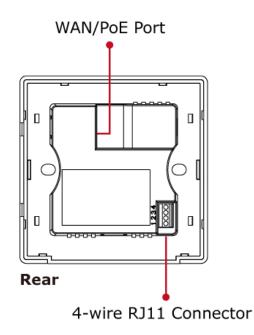
Dimensions(W x D x H): 86 x 45 x 86 mm **Weight:** 168 ±5g

Front Panel



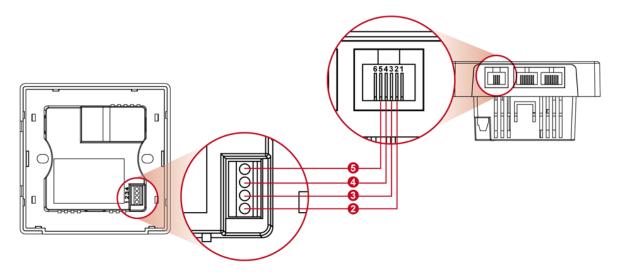


Rear Panel





4-wire RJ11 Connection diagram



LED definition

LED	STATE	FUNCTION
CVC	On Power On	Power On
SYS	Off	Power Off
	On/Flash WAN connected / data transmitting	WAN connected / data transmitting
WAN	Off	WAN disconnected
	On/Flash LAN 1 connected / data transmitting	LAN 1 connected / data transmitting
LAN 1	Off	LAN 1 port disconnected
	On/Flash LAN 2 connected / data transmitting	LAN 2 connected / data transmitting
LAN 2	Off	LAN 2 port disconnected

Button definition

Object	Description
Reset	Press the Reset button for over 10 seconds and then release it to restore system to the factory default settings.

H/W Interface definition

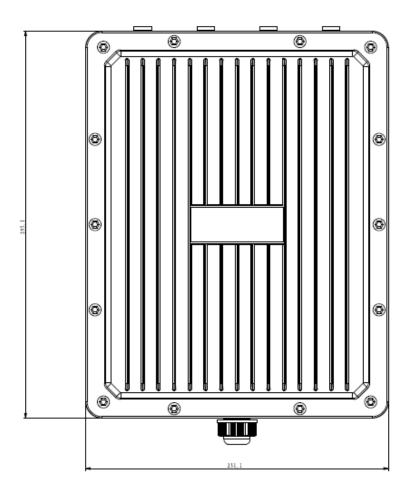
Object	Description
PoE Port	10/100/1000Mbps RJ45 port, auto MDI/ MDI-X
(802.3af/at PoE+)	Connect PoE port to the IEEE 802.3af/at PoE+ switch to power on the device.
	10/100/1000Mbps RJ-45 port, auto MDI/ MDI-X
LAN 1-2 Port	Connect this port to the network equipment.
D 144 Devi	6P4C 4-wire standard
RJ11 Port	Connect this port to digital phone or traditional phone.

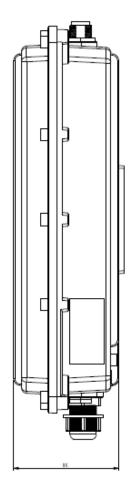


WDAP-850AC

Dimensions(W x D x H): 231 x 80 x 295 mm **Weight:** 2.3kg ± 0.1kg

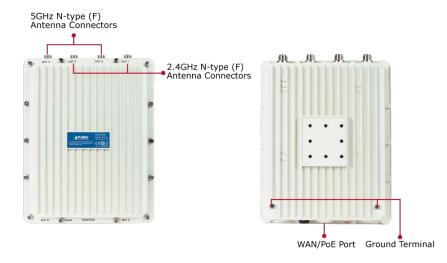
Appearance







Port & Connector



Hardware Interface Definition

Object	Description	
Antenna Connectors	4 N-type (female) antenna connectors	
PoE LAN Port	10/100/1000Mbps RJ45 port, auto MDI/MDI-X 802.3at PoE+ supported, 48VDC In	
Reset Button	Press and hold the Reset button for over 10 seconds to return to the factory default setting.	
Grounding Terminal	The grounding wire must be attached to this port to prevent damage to the AP from direct lightning strike.	



Connecting to the AP

System Requirements

- Broadband Internet Access Service (Cable/xDSL/Ethernet connection)
- One IEEE 802.3at PoE switch (supply power to the WDAP Series)
- PCs with a working Ethernet adapter and an Ethernet cable with RJ45 connectors
- PCs running Windows 98/ME, NT4.0, 2000/XP, Windows Vista / Win 7, MAC OS 9 or later, Linux, UNIX or other platforms compatible with TCP/IP protocols



2.2

The AP in the following instructions refers to PLANET WDAP-C7210E. (Please refer to WDAP-W1200E/WDAP-850AC QIG to install the AP)
 It is recommended to use Internet Explorer 11, Firefox or Chrome to access the AP.

2.3 Installing the AP

Before installing the AP, make sure your PoE switch is connected to the Internet through the broadband service successfully at this moment. If there is any problem, please contact your local ISP.

Please install the AP according to the following steps. Don't forget to pull out the power plug and keep your hands dry.

Step 1. Take the mounting bracket, put it on the target place by aligning the holes and fix it with the supplied screws.

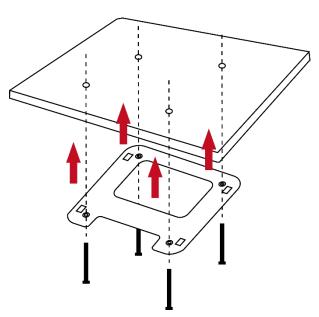


Figure 3-1 Mounting the Bracket



Step 2. Load the device into the mounting bracket, and be sure the device is mated with fixed screws. Then, lock the device in position and plug the Ethernet cable into the WDAP-C7210E.

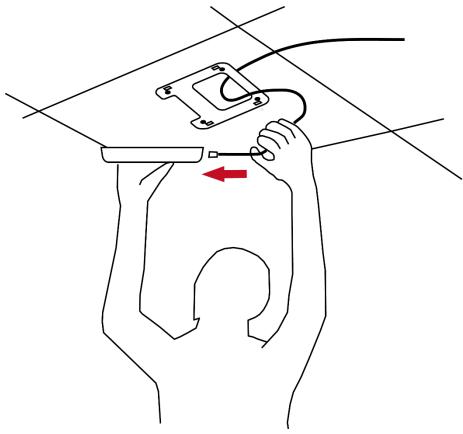


Figure 3-2 Connecting the Ethernet Cable

Step 3. Plug the other end of the Ethernet cable into the PoE switch.

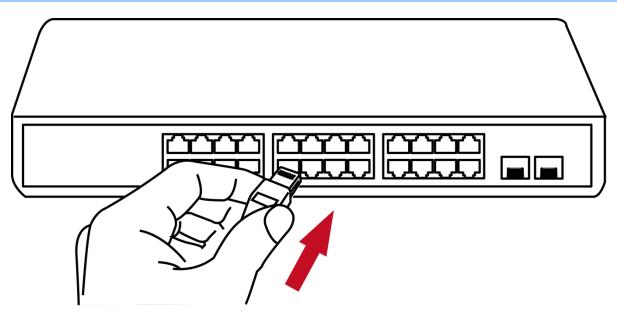


Figure 3-3 Connecting the PoE Injector



Chapter 3. Quick Installation Guide

This chapter will show you how to configure the basic functions of your AP within minutes.



A computer with wired Ethernet connection to the Wireless AP is required for the first-time configuration.

Manual Network Setup -- TCP/IP Configuration

3.1 he default IP address of the WDAP series is **192.168.1.253**. And the default subnet mask is 255.255.255.0. These values can be changed as you want. In this guide, we use all the default values for description.

Connect the WDAP series with your PC by plugging one end of an Ethernet cable in the LAN port of the AP and the other end in the LAN port of PC. The WDAP series is powered by a PoE switch.

In the following sections, we'll introduce how to install and configure the TCP/IP correctly in **Windows 10**. And the procedures in other operating systems are similar. First, make sure your Ethernet Adapter is working, and refer to the Ethernet adapter manual if needed.

3.1.1 Configuring the IP Address Manually

Summary:

- Set up the TCP/IP Protocol for your PC.
- Configure the network parameters. The IP address is 192.168.1.xxx (If the default IP address of the WDAP series is 192.168.1.253, and the DSL router is 192.168.1.254, the "xxx" can be configured to any number from 1 to 252.) and subnet mask is 255.255.255.0.
- 1 Select **Use the following IP address**, and then configure the IP address of the PC.
- 2 For example, the default IP address of the WDAP series is 192.168.1.253 and the DSL router is 192.168.1.254, or you may choose from 192.168.1.1 to 192.168.1.252.



eneral	
	d automatically if your network supports need to ask your network administrator
Obtain an IP address auton	natically
Output the following IP address	ss:
IP address:	192.168.1.100
Subnet mask:	255.255.255.0
Default gateway:	D 131 24
Obtain DNS server address	automatically
Use the following DNS server	er addresses:
Preferred DNS server:	
Alternate DNS server:	
Alchiele Dho server,	MM
	Advanced

Figure 4-1 TCP/IP Setting

Now click **OK** to save your settings.

Now, you can run the ping command in the **command prompt** to verify the network connection between your PC and the AP. The following example is in **Windows 10** OS. Please follow the steps below:

- 1. Click on **Start > Run**.
- 2. Type "**cmd**" in the Search box.



-	5 D	Filters \lor
ඛ	Best match	
	Command Prompt Desktop app	
+	Documents (3+)	
•		
۲		
£		
	𝒫 cmd	

Figure 4-2 Windows Start Menu

- 3. Open a command prompt, type ping **192.168.1.253** and then press **Enter**.
 - If the result displayed is similar to Figure 4-3, it means the connection between your PC and the AP has been established well.

Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601] Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:>>ping 192.168.1.253
Pinging 192.168.1.253 with 32 bytes of data:
Reply from 192.168.1.253: bytes=32 time=17ms TTL=64
Reply from 192.168.1.253: bytes=32 time=18ms TTL=64
Reply from 192.168.1.253: bytes=32 time=18ms TTL=64
Reply from 192.168.1.253: bytes=32 time=18ms TTL=64
Ping statistics for 192.168.1.253:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 17ms, Maximum = 18ms, Average = 17ms
C: >>
· · · · · · · · · · · · · · · · · · ·





If the result displayed is similar to Figure 4-4, it means the connection between your PC and the AP has failed.

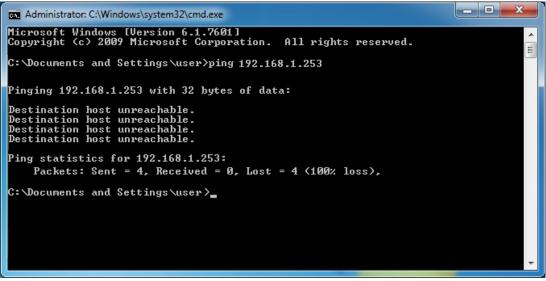


Figure 4-4 Failed Result of Ping Command

If the address is 0.0.0.0, check your adapter installation, security settings, and the settings on your AP. Some firewall software programs may block a DHCP request on newly installed adapters.



Starting Setup in the Web UI

It is easy to configure and manage the AP with the web browser.

3.	Step 1.	То	access	the	configuration	utility,	open	а	web-browser	and	enter	the	default	IP	address
		http	o://192.1	68.1.	253 in the web	addres	s field	of t	he browser.						

(¢		8 htt	p://192.168.1	1.253/	
O 19	2.168.1	.253		×	
File	Edit	View	Favorites	Tools	Help
Figure 4-5 Login by Default IP Address					

After a moment, a login window will appear. Enter **admin** for the password in lower case letters. Then click **LOGIN** or press the **Enter** key.



Figure 4-6 Login Window

Default IP Address: 192.168.1.253

Default Password: admin



If the above screen does not pop up, it may mean that your web browser has been set to a proxy. Go to Tools menu> Internet Options> Connections> LAN Settings on the screen that appears, uncheck **Using Proxy** and click **OK** to finish it.



Chapter 4. Configuring the AP

This chapter delivers a detailed presentation of AP's functionalities and features 3 main items below, allowing you to manage the AP with ease. (The below web GUI and topology uses WDAP-C7210E as an example)

	Flow (2G WiFi) bps		_	
	4500			— AP Down Strea	um — AP Up Stream
	4000				<u> </u>
	3500)			
	3000)			
	2500				
	2000				
	1000			/	
	500				
Uptime 20:19:08	c	09:29:20 09:29	:25 09:29:30	09:29:35	09:29:40
	# Device Description	踞 <u>LAN Ir</u>	formation	2G WiFi 5G Wi	Fi
# Device Information	a Device Description				OFF 🚺
	E Device Description				
# Device Information CPU Usage 1%					
	WDAP-C7210E_Reyot Click Settings				

Figure 5-1 Main Menu

The page	includes	the	following	fields:
The page	molaco	uio	ronowing	noido.

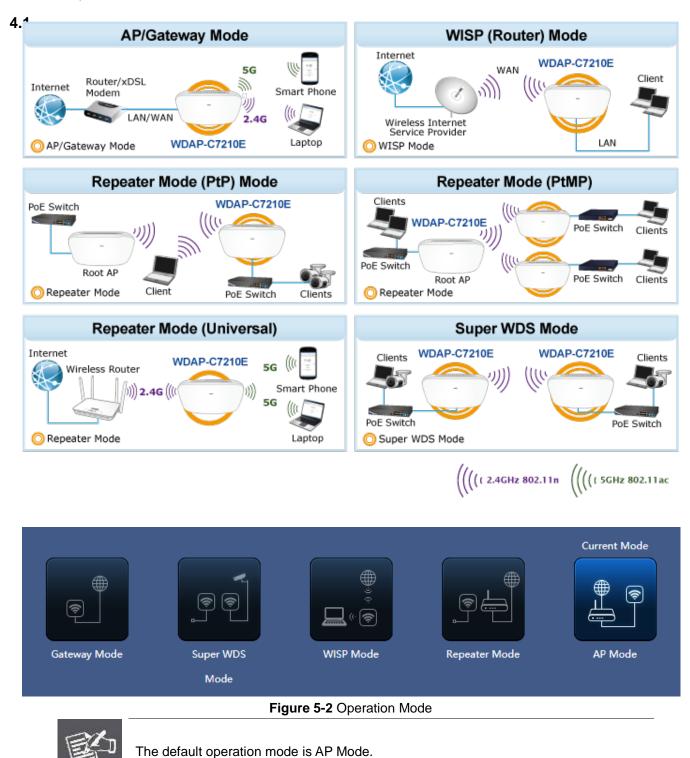
Object	Description
Operation Mode	It shows the current mode status.
Device Information	It shows the CPU/memory usage.
Device Description	You can enter the device description.
Flow (5G Wi-Fi) bps	It shows the Upstream/Downstream graph.
LAN Information	It shows the device IP mode, LAN IP, subnet, gateway and MAC address.
Wi-Fi Information	It shows the Wi-Fi status, SSID, channel, Encryption, MAC address and client list.
Version	It shows the firmware version (Double-click to show more detailed info.).



Wizard

Note

The Wizard guides you to configuring the WDAP Series in a different mode, including Gateway, Super WDS, WISP, Repeater, AP modes.

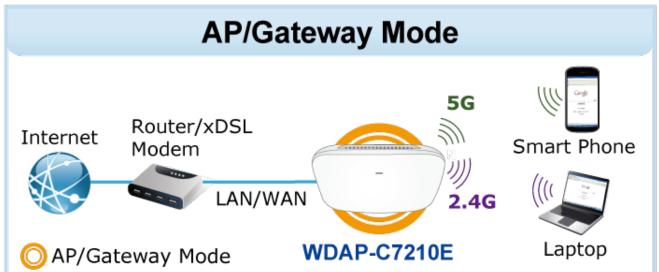




Gateway Mode (Router)

Click "Wizard" \rightarrow "Gateway Mode" and the following page will be displayed. This section allows you to configure the Gateway mode.

4.2



Gateway Mode			×
0			
WAN Settings			
Internet Mode	Static IP	T	
IP Address	Static IP PPPoE DHCP		
Subnet			
Default Gateway			
Primary DNS	8.8.8		
Secondary DNS			
	Ne	xt	

Figure 5-3 Gateway Mode



4.2.1 WAN Settings

Static IP

If your ISP offers you static IP Internet connection type, select "**Static IP**" and then enter IP address, subnet mask, default gateway and primary DNS information provided by your ISP in the corresponding fields.

WAN Settings			
Internet Mode	Static IP	۲	
IP Address			
Subn et			
Default Gateway			
Primary DNS	8.8.8		
Secondary DNS			
	Ν	ext	

Figure 5-4 Gateway -- Static IP

The page includes the following fields:

Object	Description
IP Address	Enter the WAN IP address provided by your ISP. Enquire your ISP if you are not clear
Subnet Mask	Enter WAN Subnet Mask provided by your ISP
Default Gateway	Enter the WAN Gateway address provided by your ISP
Primary DNS	Enter the necessary DNS address provided by your ISP
Second DNS	Enter the second DNS address provided by your ISP

PPPoE (ADSL)

Select **PPPOE** if your ISP is using a PPPoE connection and provide you with PPPoE user name and password info.



WAN Settings		
Internet Mode	PPPoE	
Username	Please enter account.	
Password	Please enter password.	
Server Name	If not, please do not fill out	
Service Name	If not, please do not fill out	
	Next	

Figure 5-5 Gateway - PPPoE (ADSL)

Object	Description			
Username	Enter the PPPoE User Name provided by your ISP			
Password	Enter the PPPoE password provided by your ISP			
Server Name	Enter the server name by your ISP, or not			
Service Name	Enter the service name by your ISP, or not			



DHCP

Choose "**DHCP**" and the router will automatically obtain IP addresses, subnet masks and gateway addresses from your ISP.

WAN Settings		
Internet Mode	DHCP	•
	Next	

Figure 5-6 Gateway - DHCP

4.2.2 Wireless

Gateway Mode			×
0			
2G WiFi Setting			
WiFi Status	()		
SSID	PLANET_2.4G		
	Hide your SSID?		
Channel	20M 🗸 6	*	
Encrypt	WPA2PSK_AES	~	
WiFi Password	77777777		
	Back Next		



Gateway Mode				×
1 2 5G WiFi Setting))	
	()			
SSID	PLANET_5G			
	Hide your SSID?			
Channel	20M/40M/80N 🗸	36	~	
Encrypt	Open		~	
Timing	Everyday 🗸	3:00	× 🜔	
	Back	Next		

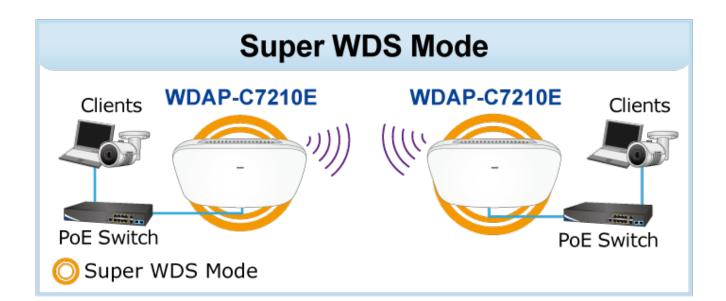
Figure 5-7 Gateway – Wireless

Object	Description
Wi-Fi Status	Select ON (Green) or OFF (Gray) to enable or disable wireless LAN
SSID	It is the wireless network name. The default SSID is PLANET_2.4G and PLANET_5G
Hide your SSID	Select ON (Green) or OFF (Gray) to hide wireless LAN or not
Channel	Select the operating channel you would like to use. The channel range will be changed by selecting a different domain.
Encryption	Select the wireless encryption. The default is None
Timing	Set time to restart for clock



Super WDS Mode

In the Super WDS mode, the wireless interface can be connected with other wireless APs through WDS, and the wireless interface and cable interface. Click "Wizard" → "Super WDS Mode" and the following page will be
4.3 displayed. If you want to use super WDS to do connection, make sure each WDAP series is already in Super WDS mode before scanning wireless.



Super WDS Mode			×
0			
WDS			
Select network	Use 2G 🗸 🗸]	
SSID	Wireless2.4G_WDS		
AP BSSID		Mark	Scan
AP BSSID		Mark	Scan
AP BSSID		Mark	Scan
AP BSSID		Mark	Scan
Encrypt	Open 🗸		
		Next	

Figure 5-8 Super WDS Mode



Object	Description
Select Network	Select network for using 2.4G or 5G to do connection.
WDS SSID	It is the WDS wireless network name. The default SSID is "Wireless2.4G_WDS" or "Wireless5.8G_WDS".
AP BSSID/Mark	Press the " Scan " button to find the WDS BSSID to connect.
Encrypt	Select open or WEP for the wireless encryption. The default is None. Key in the correct password for BSSID of WEP.

In this step you can set up the 2.4G and 5G wireless of AP SSID.

Super WDS Mode		×
02		0
2G WiFi Setting		
WiFi Status		
SSID	PLANET_2.4G	
	Hide your SSID?	
Channel	20M 🗸 6 🗸	
Encrypt	Open 🗸	
	Back Next	

Figure 5-9 Super WDS Mode – 2.4G SSID



Super WDS Mode			×
0	•		0
5G WiFi Setting			
WiFi Status			
SSID	PLANET_5G		
	Hide your SSID?		
Channel	20M/40M/80N ✔ 36	~	
Encrypt	Open	~	
	Back	Next	

Figure 5-10 Super WDS Mode - 5G SSID

Object	Description
Wi-Fi Status	Select ON (Green) or OFF (Gray) to enable or disable wireless LAN
SSID	It is the wireless network name. The default SSID is "PLANET_5G"
Hide your SSID	Select ON (Green) or OFF (Gray) to hide wireless LAN or not
Bandwidth	Select the operating channel width, "20MHz" or "40MHz" or "80MHz"
Channel	Select the operating channel you would like to use. The channel
	range will be changed by selecting a different domain.
Encrypt	Select the wireless encryption. The default is "None"



Super WDS Mode			×
12	,	3	0
IP Mode	Static IP	v	
Lan IP	192.168.1.253		
Subnet	255.255.255.0		
Gateway	192.168.1.1		
Primary DNS	114.114.114.114		
Secondary DNS	8.8.4.4		
Timing	1Day	*	
	Back	Next	

Figure 5-17 Super WDS Mode

Object	Description
IP Mode	Select "Static IP" or "DHCP Client" for setting up device IP
Timing	Set time to restart

Connection section for example,

AP1 – Enter the WDS SSID and encrypt password.



User Manual of WDAP-C7210E_WDAP-W1200E_WDAP-850AC

SSID	WDS-1			
AP BSSID			Mark	Scan
AP BSSID			Mark	Scan
AP BSSID			Mark	Scan
AP BSSID			Mark	Scan
Encrypt	WEP	~	User Password 1234567890	

Figure 5-18 Super WDS Mode – AP1

AP2 -- Press the "Scan" button to find AP1 BSSID and choose it to connect. Enter the encrypt password.

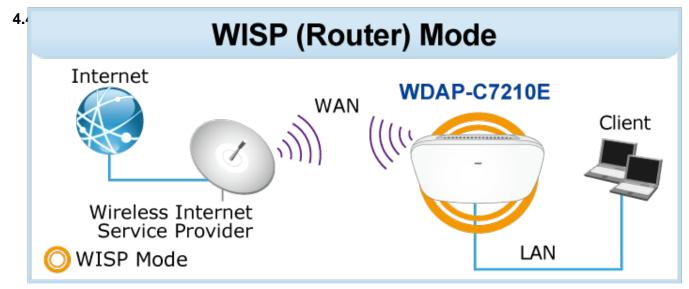
WDS				
SSID	WDS-2			
AP BSSID	C2:F7:E0:55:65:D9		Mark WDS-1	Scan
AP BSSID			Mark	Scan
AP BSSID			Mark	Scan
AP BSSID			Mark	Scan
Encrypt	WEP	*	User Password 1234567890	
			Next	

Figure 5-19 Super WDS Mode – AP2



WISP Mode

Click "Wizard" \rightarrow "WISP Mode" and the following page will be displayed. This section allows you to configure the WISP mode.



WISP Mode			×
0 0			
Repeater Settings			
BandWidth	Use 2G repeater 🗸 🗸		
Repeater SSID	Wireless2.4G	Scan	
Lock BSSID			
Encryption	WPA/WPA2PSK_TKIPAES V		
Password	77777777		
BandWidth	20M ~		
	Next		



WISP Mode		×
0-0-		-00
Repeater Settings		
BandWidth	Use 5G repeater 🗸 🗸]
Repeater SSID	Wireless5.8G	Scan
Lock BSSID		
Encryption	WPA/WPA2PSK_TKIPAES V	
Password	77777777	
BandWidth	20M/40M/80M ×	
	Next	

Figure 5-20 WISP Mode

Object	Description		
Bandwidth	Select network for using 2.4G or 5G to do connection.		
Repeater SSID	Enter the root AP's SSID or press " Scan " to select.		
Lock BSSID	Check to lock the root AP's MAC address.		
Encryption	Select the wireless encryption of root AP. The default is "WPA/WPA2PSK_TKIPAES".		
Password	Enter the password of root AP.		
Bandwidth	Select the operating channel width, "20MHz" or "40MHz" or "80MHz".		



WISP Mode			×
1 2 WAN Settings		4	•
Internet Mode	DHCP Static IP PPPoE DHCP Back Next		

Figure 5-21 WISP Mode – Select Internet Mode (Set up WAN type)



WISP Mode			×
0			
2G WiFi Setting			
WiFi Status			
SSID	PLANET_2.4G		
	Hide your SSID?		
Encrypt	Open	~	
	Back	Next	

WISP Mode				×
0	3			
5G WiFi Setting				
WiFi Status				
SSID	PLANET_5G			
	Hide your SSID?			
Encrypt	Open		~	
Timing	Everyday 🗸	3:00	× 🚺	
	Back	Next		

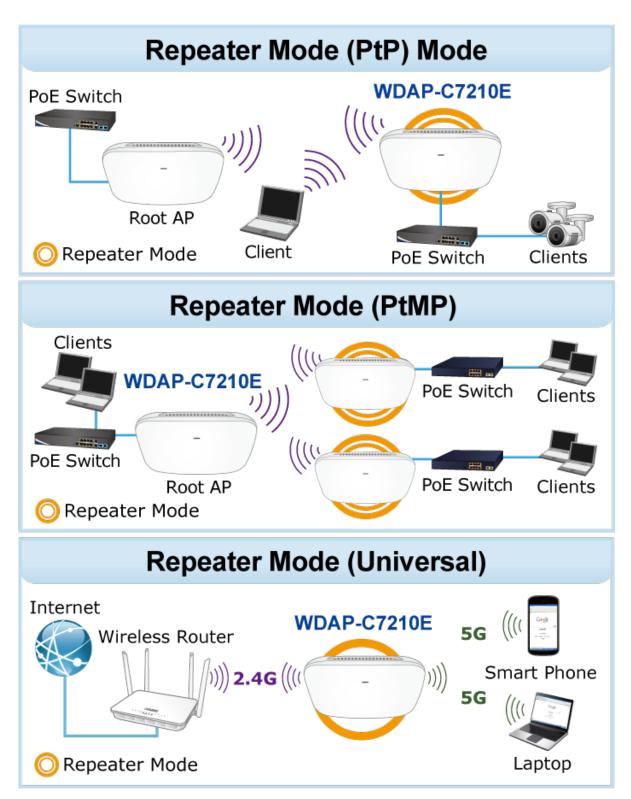
Figure 5-22 WISP Mode - Setting up Wi-Fi



Repeater Mode (Universal Repeater)

Click "Wizard" \rightarrow "Repeater Mode" and the following page will be displayed. This section allows you to configure the Repeater mode.







Repeater Mode		×
00		- G Ø
Repeater Settings		
Select network	Use 2G repeater 🗸 🗸	
Repeater SSID	Use 2G repeater Use 5G repeater	Scan
Lock BSSID		
Encryption	WPA/WPA2PSK_TKIPAES	
Password	77777777	
BandWidth	20M 🗸	
Р2Р	0	
	Next	

Figure 5-23 Repeater Mode

Object	Description		
Select Network	Select " 2.4G " or " 5.8G " wireless LAN.		
Repeater SSID	Enter the root AP's SSID or press "Scan" to select.		
Lock BSSID	Check to lock the root AP's MAC address.		
Encryption	Select the wireless encryption of root AP. The default is "WPA/WPA2PSK_TKIPAES".		
Password	Enter the password of root AP.		
Bandwidth	Select the operating channel width, "20MHz" or "40MHz" or "80MHz".		
P2P	Enable switch for Point to Point function.		

Press Scan to show the root AP that you need to repeat and press Choice to select the AP.



Repea	ter Mod	e		×
0				
R	Wirele	ss List		×
	^		C[A8:F7:E0:65:D2:90] VPA/WPA2PSK_TKIPAES	A
	?	PLANET_DM_5G_0 Channel[36] MAC Signal[-54dBm] W	[A8:F7:E0:46:24:0B]	
	?	PLANET_5G Channel[36] MAC Signal[-61dBm] C	[A8:F7:E0:4B:27:32])pen	
	R		[A8:F7:E0:0E:F2:20] VPA/WPA2PSK_TKIPAES	
		ICG-2510W-LTE_5 Channel[36] MAC Signal[-80dBm] C	[A8:F7:E0:5C:51:9D]	

Figure 5-24 Repeater Mode -- Scan Root AP



Set up the repeater wireless network

Repeater Mode			×
0			(V
G WiFi Setting			
WiFi Status			
SSID	PLANET_2.4G		
	Hide your SSID?		
Encrypt	Open	~	
	Back Next		
Repeater Mode			×
	6	- 0	
Repeater Mode		0	×
1 2 5G WiFi Setting		4	
0			
1 2 5G WiFi Setting		4	
1 2 5G WiFi Setting WiFi Status SSID	•	4	
1 2 5G WiFi Setting WiFi Status SSID	PLANET_5G	<u>م</u>	
1 2 5G WiFi Setting WiFi Status SSID	PLANET_5G Hide your SSID?		
1 2 5G WiFi Setting WiFi Status SSID Encrypt WiFi Password	PLANET_5G PLANET_5G Hide your SSID? WPAJWPA2PSK_AES 77777777		
1 2 5G WiFi Setting WiFi Status SSID Encrypt	PLANET_5G Hide your SSID? WPA/WPA2PSK_AES		
1 2 5G WiFi Setting WiFi Status SSID Encrypt WiFi Password	PLANET_5G PLANET_5G Hide your SSID? WPAJWPA2PSK_AES 77777777		
1 2 5G WiFi Setting WiFi Status SSID Encrypt WiFi Password	PLANET_5G Hide your SSID? WPA/WPA2PSK_AES 77777777 1Day		
1 2 5G WiFi Setting WiFi Status SSID Encrypt WiFi Password	PLANET_5G Hide your SSID? WPA/WPA2PSK_AES 77777777 1Day		
1 2 5G WiFi Setting WiFi Status SSID Encrypt WiFi Password	PLANET_5G Hide your SSID? WPA/WPA2PSK_AES 77777777 1Day		

Figure 5-25 Repeater Mode - Setting up Wi-Fi



Object	Description
Wi-Fi Status	Select ON (Green) or OFF (Gray) to enable or disable wireless LAN.
SSID	It is the wireless network name. The default SSID is "PLANET_5G".
Hide your SSID	Select ON (Green) or OFF (Gray) to hide wireless LAN or not.
Encryption	Select the wireless encryption. The default is "None".
Timing	Set time to restart.

Repeater Mode				×
1 2	3		-4	0
IP Mode	Static IP	~		
Lan IP	192.168.1.253			
Subnet	255.255.255.0			
Gateway	192.168.1.1			
Primary DNS	114.114.114.114			
Secondary DNS	8.8.4.4			
	Back	Next		

Figure 5-26 Repeater Mode - Setting up device IP



Object	Description
IP Mode	Select "Static IP" or "DHCP Client" for setting up device IP.
LAN IP	Enter the AP static IP address.
Subnet	Enter the network mask.
Gateway	Enter the default gateway IP address.
Primary DNS	Enter the primary DNS IP address, or not.
Secondary DNS	Enter the secondary DNS IP address, or not.

Enter the LAN IP address.



AP Mode

In the AP mode, the AP wireless interface and cable interface bridge together. Click "Wizard" \rightarrow "AP Mode" and the following page will be displayed. This section allows you to configure the AP mode.

4.6

AP	Gateway Mo	de	
Internet Router/xDSI Modem LAN	- J/WAN WDAP-C721	5G 2.4G	Smart Phone
AP Mode			×
0			•••••
LAN Settings			
IP Mode	Static IP 🗸		
Lan IP	192.168.1.253		
Subnet	255.255.255.0		
Gateway	192.168.1.1		
Primary DNS			
Secondary DNS	8.8.4.4		
	Next		

Figure 5-27AP Mode



Object	Description
IP Mode	Select "Static IP" or "DHCP Client" for setting up device IP.
LAN IP	Enter the AP static IP address.
Subnet	Enter the network mask.
Gateway	Enter the default gateway IP address.
Primary DNS	Enter the primary DNS IP address, or not.
Secondary DNS	Enter the secondary DNS IP address, or not.

Enter the LAN IP address.

AP Mode			×
0@)		•
2G WiFi Setting			
WiFi Status			
SSID	PLANET_2.4G		
	Hide your SSID?		
Channel	20M 🗸	6 🗸	
Encrypt	Open	~	
	Back	Next	



AP Mode					×
1 2 5G WiFi Setting	,	•	3		-0
WiFi Status	()				
SSID	PLANET_5G				
	Hide your SSID?				
Channel	20M/40M/80N 🗸	36	~		
Encrypt	Open		~		
Timing	1Day		~		
	Back	Next			

Figure 5-28 AP Mode – Set up Wi-Fi

Object	Description
Wi-Fi Status	Select ON (Green) or OFF (Gray) to enable or disable wireless LAN.
SSID	It is the wireless network name. The default SSID is "PLANET_5G".
Hide your SSID ?	Select ON (Green) or OFF (Gray) to hide wireless LAN or not.
Bandwidth	Select the operating channel width, "20MHz" or "40MHz" or "80MHz".
Channel	Select the operating channel you would like to use. The channel range will be changed by selecting a different domain.
Encryption	Select the wireless encryption. The default is "None".
Timing	Set time to restart.



Wi-Fi

4.7

4.7.1 2.4G/5G Wi-Fi

4.7.1.1. Basic

m	2G WiFi		MAC ACL	WiFi Timer Off	Advanced	
Home	Basic	VAP 1				
			WiFi Status		WiFi Analyzer	
Wizard				PLANET_2.4G		
The second				Hide your SSID?		
				20M	<u> </u>	
WiFi				6	<u> </u>	
				Open	*	
						Apply
Network						
*						
Manage						
R	2G WiFi	5G WiFi	MAC ACL	WiFi Timer Off	Advanced	
fi Home		_			Advanced	
Home	2G WiFi Basic	_	VAP 2 VAP 3	}		
Home		_			Advanced WiFi Analyzer	
Home		_	VAP 2 VAP 3 WiFi Status			
Home Vizard		_	VAP 2 VAP 3 WiFi Status	PLANET_5G	WiFi Analyzer	
Home Vizard		_	VAP 2 VAP 3 WiFi Status SSID	PLANET_5G Hide your SSID?	WiFi Analyzer	
Home Vizard		_	VAP 2 VAP 3 WiFi Status SSID BandWidth Channel Encrypt	PLANET_5G Hide your SSID? 20M/40M/80M 36 Open	WiFi Analyzer	
Home Vizard		_	VAP 2 VAP 3 WiFi Status SSID BandWidth Channel	PLANET_5G Hide your SSID? 20M/40M/80M 36	WiFi Analyzer	
Home Vizard			VAP 2 VAP 3 WiFi Status SSID BandWidth Channel Encrypt	PLANET_5G Hide your SSID? 20M/40M/80M 36 Open	WiFi Analyzer	Apply
Home Wizard			VAP 2 VAP 3 WiFi Status SSID BandWidth Channel Encrypt	PLANET_5G Hide your SSID? 20M/40M/80M 36 Open	WiFi Analyzer	Apply
Home Wizard WiFi Network			VAP 2 VAP 3 WiFi Status SSID BandWidth Channel Encrypt	PLANET_5G Hide your SSID? 20M/40M/80M 36 Open	WiFi Analyzer	Apply
Home Wizard			VAP 2 VAP 3 WiFi Status SSID BandWidth Channel Encrypt	PLANET_5G Hide your SSID? 20M/40M/80M 36 Open	WiFi Analyzer	Apply
Home Wizard WiFi Network			VAP 2 VAP 3 WiFi Status SSID BandWidth Channel Encrypt	PLANET_5G Hide your SSID? 20M/40M/80M 36 Open	WiFi Analyzer	Apply
Home Wizard WiFi Network			VAP 2 VAP 3 WiFi Status SSID BandWidth Channel Encrypt	PLANET_5G Hide your SSID? 20M/40M/80M 36 Open	WiFi Analyzer	Арріу
Home Wizard WiFi Network			VAP 2 VAP 3 WiFi Status SSID BandWidth Channel Encrypt	PLANET_5G Hide your SSID? 20M/40M/80M 36 Open	WiFi Analyzer	Apply
Home Wizard WiFi Network			VAP 2 VAP 3 WiFi Status SSID BandWidth Channel Encrypt	PLANET_5G Hide your SSID? 20M/40M/80M 36 Open	WiFi Analyzer	Αρρίγ

Figure 5-29 Basic



Object	Description
Wi-Fi Status	Select ON (Green) or OFF (Gray) to enable or disable wireless LAN.
SSID	It is the wireless network name. The default SSID is " PLANET_2.4G " or " PLANET_5G ".
Hide your SSID ?	Select ON (Green) or OFF (Gray) to hide wireless LAN or not.
Channel	It shows the channel of the CPE. Default 2.4GHz is channel 6.and 5GHz is channel 36.
Encryption	Select the wireless encryption. The default is "None".
WMM	Enable/Disable WMM (Wi-Fi Multimedia) function.
Wi-Fi Analyzer	Press this button to analyze local area wireless signal.

4.7.1.2. VAP

2G WiFi		MAC ACL	WiFi Timer Off	Advanced				
Basic	VAP 1							
			PLANET_2.4G_1					
					0			
			Open	¥				
							Apply	
		WMM					Apply	

Figure 5-30 VAP

Select VAP1~VAP3 to enable virtual AP.

Object	Description
Wi-Fi Status	Select ON (Green) or OFF (Gray) to enable or disable virtual wireless
	LAN.
SSID	It is the wireless network name. The default 2.4G SSID is
	"PLANET_2.4G_1" to "PLANET_2.4G_3" and 5G SSID is
	"PLANET_5G_1" to "PLANET_5G_3".
Hide your SSID	Select ON (Green) or OFF (Gray) to hide wireless LAN or not.
Channel	It shows the channel of the CPE. Default 2.4GHz is channel 6.and
Channel	5GHz is channel 36.
Encryption	Select the wireless encryption. The default is "None".
WMM	Enable/Disable WMM (Wi-Fi Multimedia) function.



4.7.2 MAC ACL

4.7.2.1. MAC ACL

ń			MAC ACL	WiFi Timer Off	Advanced			
Home		SN	Nar	ne	MAC Address	Mark	Status	Config
	Z				12:BA:FB:0C:6D:A4		0	٥
Wizard								
1								
WiFi								
	1							
Network								
_								
*								
Manage								
	Add	Delete	Apply	Disable	~			

Figure 5-11 MAC ACL

The page includes the following fields:

Object	Description
Add	Press the " Add " button to add end-device that is scanned from wireless network and mark them.
Delete	Press the " Delete " button to delete device from list.
Apply	Press the " Apply " button to enable/disable the rule.
ACL Status	Select the rule of ACL, default is Disable . Whitelist: Allows the devices to pass in the rule
	Blacklist: Prohibited rules within the device through

Add	Delete	Apply	Allows the device to pass in th ▼
			Disable
			Allows the device to pass in the rule
			Prohibited rules within the device throug

Figure 5-32 ACL status



4.7.3 Wi-Fi Timer Off

4.7.3.1. Wi-Fi Timer Off

	2G WiFi	5G WiFi	MAC ACL	WiFi Timer Off	Advanced
WiFi T	imer Off				
			WiFi Timer Off Time Frame		✓ — 07 ✓ : 00 ✓ Apply

Figure 5-33 Wi-Fi Timer Off

Object	Description	
Wi-Fi Timer Off	Select ON (Green) or OFF (Gray) to enable or disable timer.	
Time Frame	Choose the time frame of Wi-Fi.	



4.7.4 Advanced

4.7.4.1. Advanced

	2G WiFi	5G WiFi	MAC ACL	WiFi Timer Off	Advanced	
Adv	vanced					
			2G Mode	11N/G	~	
				11AC	~	
				64		
				64		(
			i WLAN Partition	OFF	~	
			i WLAN Partition	OFF	Ý	
				-90		
				-90	1	
			2G TX Power	Max	~	
			5G TX Power	Max	Ý	
				OFF	~	
				ON	Ý	
				2346		
				2347		
				OFF	~	
			minal Fast Roam	OFF	Ý	

Figure 5-34 Advanced

Object	Description				
2.4G Mode	Select 802.11B/G or 802.11N/G in CPE.				
5G Mode	Select 802.11A or 802.11AN or 802.11AC in CPE.				
Maximum 2.4G per AP	The maximum users are 64.				
Maximum 5G per AP	The maximum users are 64.				
2.4G WLAN Partition	Enable it to isolate each connected wireless client so that they cannot				
	access mutually.				
5G WLAN Partition	Enable it to isolate each connected wireless client so that they cannot				
	access mutually.				
2.4G Coverage Threshold	The coverage threshold is to limit the weak signal of clients occupying				
	session. The default is -90dBm.				
5G Coverage Threshold	The coverage threshold is to limit the weak signal of clients occupying				
	session. The default is -90dBm.				
2.4G TX Power	The range of transmit power is Max (100%), Efficient (75%),				
	Enhanced (50%), Standard (25%) or Min (12.5%). In case of				
	shortening the distance and the coverage of the wireless network,				
	input a smaller value to reduce the radio transmission power.				



5G TX Power	The range of transmit power is Max (100%), Efficient (75%),					
	Enhanced (50%), Standard (25%) or Min (12.5%). In case of					
	shortening the distance and the coverage of the wireless network,					
	input a smaller value to reduce the radio transmission power.					
Multicast Fast	A part of the 802.11n standard that allows sending multiple frames per					
	single access to the medium by combining frames together into one					
	larger frame. It creates the larger frame by combining smaller frames					
	with the same physical source, destination end points, and traffic class					
	(QoS) into one large frame with a common MAC header.					
Short GI	Guard intervals are used to ensure that distinct transmissions do not					
	interfere with one another.					
Packet Threshold	When the length of a data packet exceeds this value, the router will					
	send an RTS frame to the destination wireless node, and the latter will					
	reply with a CTS frame, and thus they are ready to communicate. The					
	default value is 2346.					
RTS Threshold	Enable or Disable RTS/CTS protocol. It can be used in the following					
	scenarios and used by Stations or Wireless AP.					
	1) When medium is too noisy or lots of interferences are present. If the					
	AP/Station cannot get a chance to send a packet, the RTS/CTS					
	mechanism can be initiated to get the packet sent.					
	2) In mixed mode, the hidden node problem can be avoided.					
	The default value is 2347.					
Preferred 5G	Enable or Disable to let client connect with 5G first.					
Terminal Fast Roam	Enable or Disable 802.11k, 802.11v and 802.11r.					



4.7.5 Network

4.7.5.1. LAN Settings

	LAN Settings Snmp Config VLAN	N Settings
Home	LAN Settings	
		Static IP 🗸
		192.168.1.253
Wizard		255.255.255.0
		192.168.1.1
WiFi		114.114.114
		8.8.4.4
Network		Apply
Manage		

Figure 5-35 LAN Settings

The page includes the following fields:

Object	Description			
IP Mode	Select "Static IP" or "DHCP Client" for setting up device IP.			
LAN IP	Enter the AP static IP address.			
Subnet	Subnet Enter the network mask.			
Gateway	Enter the default gateway IP address.			
Primary DNS	Enter the primary DNS IP address, or not.			
Secondary DNS	Enter the secondary DNS IP address, or not.			

4.7.5.2. SNMP Config

	LAN Settings	Snmp Config	VLAN	l Settings
Snn	np Config			
				private
				public
			Idress	192.168.1.100

Figure 5-12 SNMP Config



Object	Description		
Read Community	Enter the read community, default is public.		
Write Community	Enter the write community, default is private.		
Trap Destination Address	Enter the SNMP trap IP address, default is 192.168.1.100.		

4.7.5.3. VLAN Settings

LAN Settings	Snmp Config VLAN Se	ttings		
	АР	VAP 1	VAP 2	VAP 3
5G WiFi	VLAN-ID range 3-4094	VLAN-ID range 3-4094	VLAN-ID range 3-4094	VLAN-ID range 3-4094
Apply OFF				

Figure 5-37 VLAN Settings

Object	Description
AP	Select AP or VAP included in the VLAN.
VLAN ID	Enter the VLAN ID from 3 to 4094.



4.7.5.4. WAN Settings

Static IP

If your ISP offers you static IP Internet connection type, select "**Static IP**" and then enter IP address, subnet mask, default gateway and primary DNS information provided by your ISP in the corresponding fields.

LAN Settings Static DHCP WAN	Settings WAN Advanced Sett	ings URL Mapping
WAN Settings		
	Static IP 🔹	
	1500	(1400-1500)
	8.8.8.8	
	4.4.4.4	
	1000M Fiber 🔹 🔻	
	1000000	Kbps
	1000000	Кbps
		Apply

Figure 5-38 Static IP

The page includes the following fields:

Object	Description
IP Address	Enter the WAN IP address provided by your ISP. Enquire your ISP if you are not clear.
Subnet	Enter WAN Subnet Mask provided by your ISP.
Default Gateway	Enter the WAN Gateway address provided by your ISP.
MTU	Maximum Transmission Unit. Default is 1500.
Primary DNS	Enter the necessary DNS address provided by your ISP.
Secondary DNS	Enter the secondary DNS address provided by your ISP.
Upstream	Enter limited upstream throughput, default is 1000000 Kbps.
Downstream	Enter limited downstream throughput, default is 1000000 Kbps.

PPPoE (ADSL)

Select **PPPOE** if your ISP is using a PPPoE connection and provide you with PPPoE user name and password info.



LAN Settings Static DHCP WAN	Settings WAN Advanced Sett	ings URL Mapping
WAN Settings		
	РРРоЕ 🗸	
	Please enter account.	
	Please enter password.	
	If not, please do not fill out	
	If not, please do not fill out	
	1452	(1400-1492)
	<u></u>	
	8.8.8.9	
	44.4.4	
	1000M Fiber 🗸 🗸	
	1000000	Kbps
	1000000	Кыра
		Apply

Figure 5-39 PPPoE (ADSL)

Object	Description			
Username	Enter the PPPoE User Name provided by your ISP.			
Password	Enter the PPPoE password provided by your ISP.			
Server Name	Enter the server description or not.			
Service Name	Enter the service description or not.			
MTU	Maximum Transmission Unit. Default is 1452.			
Set DNS Manually	Enable/Disable DNS Manually.			
Primary DNS	Enter the necessary DNS address provided by your ISP.			
Secondary DNS	Enter the secondary DNS address provided by your ISP.			
Band Type	Select the band type provided by your ISP.			
Upstream	Enter limited upstream throughput, default is 1000000 Kbps.			
Downstream	Enter limited downstream throughput, default is 1000000 Kbps.			

DHCP

Choose "**DHCP**" and the router will automatically obtain IP addresses, subnet masks and gateway addresses from your ISP.



LAN Settings Static DHCP WAN	Settings WAN Advanced Set	tings URL Mapping
WAN Settings		
	рнср 🗸	
	1492	(1400-1500)
	8.8.8.8	
Secondary DNS	4.4.4.4]
	1000M Fiber 🗸 🗸 🗸	
	1000000	Кbps
	1000000	Кыря
		Apply



Object	Description			
MTU	Maximum Transmission Unit. Default is 1452.			
Set DNS Manually	Enable/Disable DNS Manually.			
Primary DNS	Enter the necessary DNS address provided by your ISP.			
Secondary DNS	Enter the secondary DNS address provided by your ISP.			
Band Type	Select the band type provided by your ISP.			
Upstream	Enter limited upstream throughput, default is 1000000 Kbps.			
Downstream	Enter limited downstream throughput, default is 1000000 Kbps.			



LAN Settings	Static DHCP	WAN Settings	WAN Advanced Settings	URL Mapping
WAN Advanced Settings				
		Enable wel	o server access on WAN port	8080 (1-65535)
		MAC Clone	-	Scan
		Enable Pin		
		Enable IPs		
		Enable PP1		
		Enable L21		
		Une Detection	tion Host Name 1 114.114	14.114.114 Host Name 2 114.114.115.115 Apply

Figure 5-13 WAN advanced settings



Object	Description			
Enable web server access on WAN port	Enable to access from WAN, default port is 8080			
MAC clone	Enable and scan to clone the MAC address			
Enable Ping Access on WAN	Enable or Disable this function			
Enable IPsec passthrough on VPN connection	Enable or disable IPSec to pass through IPSec communication data.			
Enable PPTP passthrough on VPN connection	Enable or disable PPTP to pass through PPTP communication data.			
Enable L2TP passthrough on VPN connection	Enable or disable L2TP to pass through L2TP communication data.			
Line Detection	Enable to ping Host 1 and Host 2 IP. If ping fails, the WAN will be disconnected.			

4.7.6 Security

4.7.6.1. URL Filtering

Url Filter				×
Url Filter				
Status	•••			
Rule Name	Black list			
Time Group	Any 🔻	Add		
URL	www.faceback.com			
Mark				
			Save	



Url Filter				×
Url Filter				
Status	•••			
Rule Name	Black list			
Time Group	Custom	Add		
Time Range	00 • : 00 • - 00 • : 00			
Work Date	Everyday			
URL	www.faceback.com			
Mark				
			Save	

Figure 5-24 URL Filtering

Object	Description			
Add	Press the "Add" button to add the rule			
Delete	Press the "Delete" button to delete the rule			
Apply	Press the "Apply" button to enable/disable the rule			
Status	Select ON (Green) or OFF (Gray) to enable or disable			
Rule Name	Enter the rule name, e.g. Black list			
Time Group	Select Any or Customer to set up time range and work data.			
URL	Enter the URL that you need to put in black list			
Mark	Enter the mark string, or not			

Enable/disable URL filter function



Figure 5-43 URL Filtering



4.7.6.2. IP/Port Filtering

IP Filter					×
IP Filter					
Status	()				
Rule Name					
Time Group	Any	*	Add		
IP Group	Custom	٣	Add		
IP Address				Scan	
Port Range			No e	mpty,range:1-	-65535
Protocol	TCP+UDP	*			
Mark					
				Save	;

Figure 5-44 IP/Port Filtering

Object	Description
Add	Press the "Add" button to add the rule in the black or white list
Delete	Press the "Delete" button to delete the rule
Apply	Press the "Apply" button to enable/disable the rule
Status	Select ON (Green) or OFF (Gray) to enable or disable
Rule Name	Enter the rule name, e.g. Black list
Time Group	Select Any or Customer to set up time range and work data.
IP Group	Select IP Group for adding IP by entering IP range or by scanning devices
IP Address	Enter the IP that you need to put in black or white list



Port Range	Enter the web port to access		
Protocol	Select TCP, UDP or TCP+UDP		
Mark	Enter the mark string, or not		
IP/Port Filtering Status	Select the rule of IP/Port Filtering, default is Disable . Whitelist: Allow the devices to pass in the rule Blacklist: Prohibited rules within the device through		

Add	Delete	Apply	Disable v
			Disable Allows the device to pass in the rule Prohibited rules within the device through

Figure 5-45 IP/Port Filtering

4.7.6.3. MAC Filtering

MAC Filter					×
MAC Filter					
Status	•				
Rule Name					
Time Group	Any	۳	Add		
MAC Address			Scan		
Mark					
				Save	



MAC Filter			×
MAC Filter			
Status	•		
Rule Name			
Time Group	Custom •	Add	
Time Range	00 • : 00 • - 00 • : 00 •		
Work Date	Everyday v		
MAC Address		Scan	
Mark			
			Save

Figure 5-46 MAC Filtering

Object	Description
Add	Press the "Add" button to add the rule in the black or white list
Delete	Press the "Delete" button to delete the rule
Apply	Press the "Apply" button to enable/disable the rule
Status	Select ON (Green) or OFF (Gray) to enable or disable
Rule Name	Enter the rule name, e.g. Black list
Time Group	Select Any or Customer to set up time range and work data.
MAC Address	Enter the MAC address that you need to put in black or white list
Mark	Enter the mark string, or not
MAC Filtering Status	Select the rule of MAC Filtering, default is Disable .
	Whitelist: Allow the devices to pass in the rule
	Blacklist: Prohibited rules within the device through



Add	Delete	Apply	Disable 🔹
			Disable Allows the device to pass in the rule Prohibited rules within the device through

Figure 5-47 IP/Port Filtering

4.7.6.4. Security (Port Mapping/Port Forwarding)

Security					×
Security					
Status	()				
Rule Class	User Defined	•			
Rule Name					
Protocol	TCP+UDP	T			
Lan IP			Scan		
External Port			No empty,ra	ange:1-65535	
Internal Port			No empty,ra	ange:1-65535	
Mark					
				Save	

Figure 5-48 Port Mapping

Object	Description
Add	Press the "Add" button to add the rule in the black or white list
Delete	Press the " Delete " button to delete the rule
Apply	Press the "Apply" button to enable/disable the rule
Status	Select ON (Green) or OFF (Gray) to enable or disable
Rule Name	Enter the rule name, e.g. Black list
Protocol	Select TCP, UDP or TCP+UDP



LAN IP	Enter the IP address that you need for port forwarding
External Port	Enter the external port range
Internal Port	Enter the internal port range
Mark	Enter the mark string, or not

Enable/disable Port Mapping function



Figure 5-49 Port Mapping

4.7.6.5. DMZ

	Url Filter	IP Filter	MAC Filter		DMZ		
DMZ							
				192.168.1.1	50	Scan	
							Apply

Figure 5-50 DMZ

Object	Description
Enable DMZ	Select Enable DMZ Host or Disable
DMZ Host IP	Enter the DMZ LAN IP



4.7.7 Management

4.7.7.1. Configure

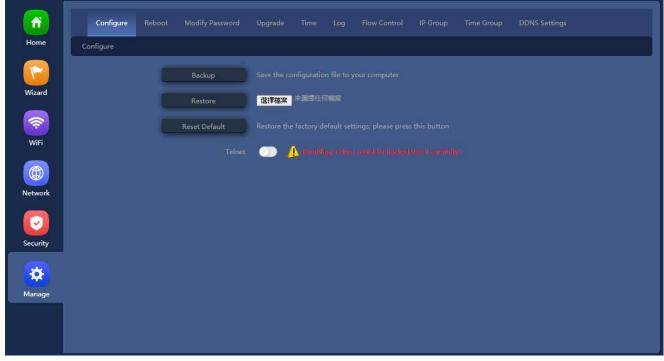


Figure 5-14 Configure

Object	Description				
Backup	Save the configuration file to your computer				
Restore	Reload the configuration from your computer				
Reset Default	Restore the factory default settings, please press this button				
Telnet	Enabling Telnet could be hacked, Use it carefully!				
	(Only for support using, default is disable)				



4.7.7.2. Reboot

Configure	Reboot	Modify Password	Upgrade			Flow Control		DDNS Settings
Reboot								
			Reboot					
		O Reboot Time	Everyday	~ 3	8:00	~		
		🔵 Restart Interval						
								Apply

Figure 5-15 Reboot

The page includes the following fields:

Object	Description				
Reboot	Reboot device immediately				
Timed Reboot	Select Enable or Disable to start schedule reboot				
Reboot Time	Select reboot time for clock				
Restart Interval	Select reboot duty by day				

4.7.7.3. Modify Password

Configure Reboo	t Modify Password	Upgrade		Flow Control	Time Group	DDNS Settings
Modify Password						
						Apply

Figure 5-16 Modify password

Object	Description
Old Password	Enter old password for change the password
New Password	Enter new password



Confirm Password

Enter new password again

4.7.7.4. Upgrade

Configure	Reboot	Modify Password	Upgrade Time Log
Upgrade			
		選擇檔案 未選	豊澤任何檔案
			sume the factory configuration 🕖
		🔔 Note: Do n	
			Upgrade

Figure 5-54 Upgrade Firmware

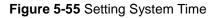
The page includes the following fields:

Object	Description
Choose File	Press to select the firmware file
Whether to resume the factory configuration	Select to reset the device to default when upgrading firmware
Upgrade	Press to upgrade the firmware

Note: Do not power off during the process of upgrading the software

4.7.7.5. Time

Configure	Reboot	Modify Password	Upgrade	Time		Flow Control	IP Group	Time Group	DDNS Settings
Time									
			(GMT)Ca	sablanca, N	Monrovia	_	~		
			time.wind	dows.com		~			
								A	Apply





Object	Description
System Time	Show system time of device
NTP Enable	Select Enable or Disable NTP function
Time Zone Select	Select time zone
Manual IP Settings	Enable to manual IP setting
NTP Server	Select NTP server
Sync with Host	Press to sync system time with host server

Note: If you want to use any function that needs scheduling, must enable NTP function.

4.7.7.6. Log

		ON	~				
Aug 18 07:52:45 WDAP-C7210E Aug 18 07:52:45 WDAP-C7210E						d cache entries	<u>^</u>
Aug 18 07:52:45 WDAP-C7210E							-
Aug 18 07:52:45 WDAP-C7210E							
Aug 18 07:52:45 WDAP-C7210E				sent 0, retr	ried or failed	10	
Aug 18 07:52:48 WDAP-C7210E							
Aug 18 07:52:48 WDAP-C7210E Aug 18 07:52:48 WDAP-C7210E						a cache entries	
Aug 18 07:52:48 WDAP-C7210E					ocarry 5		
Aug 18 07:52:48 WDAP-C7210E					ried or failed	10	
Aug 18 07:52:48 WDAP-C7210E							
Aug 18 07:52:48 WDAP-C7210E							
Aug 18 07:52:48 WDAP-C7210E						d cache entries	
Aug 18 07:52:48 WDAP-C7210E					ocally 3		
Aug 18 07:52:48 WDAP-C7210E Aug 18 07:52:48 WDAP-C7210E					nied on failed	1.0	
Aug 18 07:52:48 WDAP-C7210E Aug 18 07:52:48 WDAP-C7210E							
Aug 18 07:52:48 WDAP-C7210E				Jene 0, ree	fice of fullet		
Aug 18 07:52:48 WDAP-C7210E				Insertions re	-used unexpire	d cache entries	
Aug 18 07:52:48 WDAP-C7210E							
Aug 18 07:52:48 WDAP-C7210E							
10 07.51.40 LIDAD C71105	daemon.info dnsmasq[2						
		(1131) conver 10 1 1	3#53: queries	sent 0, ret	ried or failed	0	
Aug 18 07:52:48 WDAP-C7210E							
Aug 18 07:52:48 WDAP-C7210E Aug 18 07:52:48 WDAP-C7210E Aug 18 07:52:50 WDAP-C7210E Aug 18 07:52:50 WDAP-C7210E	daemon.info dnsmasq[2	2113]: time 15977371	.70				-

Figure 5-56 Setup System Time

Object	Description
Log	Select ON/OFF to record log or not
Remote Log Service	Enable remote log server and enter the server IP address



Export	Export a log.bin file to you PC
Delete	Press to delete all of the system log
Refresh	Press to refresh the system log

4.7.7.7. Flow Control

1 2	istom istom	Time Group Any Custom	Limited Mode Shared Limited Exclusive limited	Up 1000000 10000000	Down 1000000 10000000	Status	Mark Any Custom	Config O O
2								۲
Add								

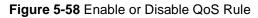
Figure 5-57 Setup Flow Control

The page includes the following fields:

Object	Description
Add	Press the "Add" button to add the rule in the control list
Delete	Press the "Delete" button to delete the rule
Apply	Press the "Apply" button to enable/disable the rule
Status	Select enable or disable QoS rule

Enable/disable Port Mapping function

Add	Delete	Apply	Enable QoS	~
			Disable QoS	`
			Enable QoS	





Speed Limit						×
Speed Limit						
Status						
IP Group	Custom	~	Add			
IP Address				Scan		
Time Group	Any	~	Add			
Limited Mode	Shared Limited Band	width 🗸 🗸				
Up			Kbps			
Down			Kbps			
Mark						
					Save	

Figure 5-59 Adding rule of flow control(Speed Limit)

Object	Description
Status	Select enable or disable flow control rule
IP Group	Select custom or Add an IP group
IP Address	Enter an IP address range or use scan to select
Time Group	Select any or custom or Add a Time group
Limited Mode	Select limited mode for shared limited bandwidth or exclusive limited bandwidth
Up	Enter the upstream limited for kbps
Down	Enter the downstream limited for kbps
Mark	Enter the mark string, or not



4.7.7.8. IP Group

	Configure	Reboot	Modify Password	Upgrade		Flow Control	IP Group	DDNS Settings	
		SN	Group	Name		IP Range		Mark	Config
			WDAP-C7	200E_2F	192	2.168.1.100-192.1	68.1.120		٥
	٩dd	Delete							
L′		Benetes							

Figure 5-60 IP Group

The page includes the following fields:

Object	Description
Add	Press the "Add" button to add IP group in list
Delete	Press the "Delete" button to delete the group

×
Scan
Save

Figure 5-17 Add IP Group



Object	Description	
Group Name	Enter an IP group description	
IP Address	Enter an IP address range or use scan to select	
Mark	Enter the mark string, or not	

4.7.7.9. Time Group

					Flow Control		Time Group	DDNS Settings		
	SN	Time Group	Time Range			Work Date			Mark	Config
										۲
Ad	łd	Delete								

Figure 5-62 Time Group

Object	Description
Add	Press the "Add" button to add time group in list
Delete	Press the " Delete " button to delete the group



Time Group				×
Time Group				
Time Group				
Time Range	00 🗸 : 00 🗸 - 00 🗸 : 00	~		
Work Date	Everyday	~		
Mark				
			Save	

Figure 5-18 Add Time Group

Object	Description
Time Group	Enter an time group description
Time Range	Select start time and end time for time range
Work Date	Select work day by option table
Mark	Enter the mark string, or not



4.7.7.10. DDNS Setting

Configure	Reboot	Modify Password	Upgrade			Flow Control			DDNS Settings	
DDNS Settings										
			•							
		DDNS Option	PLANET D	DNS	_		ł	~		
					_	_	_			
				_	_					
							_			
		Public IP								
								4	spply	

Figure 5-64 DDNS Setting

Object	Description
DDNS	Select ON (Green) or OFF (Gray) to enable or disable PLANET DDNS
DDNS Option	Select PLANET DDNS or Easy DDNS function
User Name	Enter user account for PLANET DDNS. If you use Easy DDNS it was not necessary.
Password	Enter password for PLANET DDNS. If you use Easy DDNS it was not necessary.
Domain	Enter unique domain name for device. If you use Easy DDNS it will be automatically generated
Public IP	Public IP address is necessary for WAN IP
No Account Registration Forget Password	Hyperlink to <u>http://www.planetddns.com/?view=registration</u>



DDNS			
DDNS Option	PLANET EasyDDNS	~	
User Name	pt55417a		
Password			
Domain			
Public IP	N/A		
	No Account? Registration Forget Password		
			Apply

Figure 5-65 PLANET EasyDDNS



Chapter 5. Quick Connection to a Wireless Network

In the following sections, the default SSID of the WDAP series is configured to "default".

Windows XP (Wireless Zero Configuration)

Step 1: Right-click on the wireless network icon displayed in the system tray

5.1



Figure 6-1 System Tray – Wireless Network Icon

Step 2: Select [View Available Wireless Networks]

Step 3: Highlight and select the wireless network (SSID) to connect

- (1) Select SSID [default]
- (2) Click the [Connect] button

⁹⁰ Wireless Network Connect	ion 🔀
Network Tasks	Choose a wireless network
🔁 Refresh network list	Click an item in the list below to connect to a <u>w</u> ireless network in range or to get more information.
Set up a wireless network for a home or small office	
Related Tasks	Contraction of the second seco
Learn about wireless networking	Security-enabled wireless network
Change the order of preferred networks	((P))
Change advanced settings	(()) default
	To connect to this network, click Connect. You might need to enter additional information.
	((p))

Figure 6-2 Choosing a Wireless Network



Step 4: Enter the encryption key of the wireless AP

- (1) The Wireless Network Connection box will appear
- (2) Enter the encryption key that is configured in section 5.7.2.1
- (3) Click the [Connect] button

Wireless Network Connection				
	es a network key (also called a WEP key or WPA key). unknown intruders from connecting to this network. Connect.			
Network <u>k</u> ey:	•••••			
C <u>o</u> nfirm network key:	•••••			
	<u>Connect</u> Cancel			

Figure 6-3 Entering the Network Key

Step 5: Check if "Connected" is displayed

((†)) Wireless Network Connection					
Network Tasks	Choose a wireless network				
💋 Refresh network list	Click an item in the list below to connect to a <u>w</u> ireless network in range or to get more information.	э			
Set up a wireless network for a home or small office	((Q)) default Connected	*			
For a nome or small office	Contract of the security-enabled wireless network (WPA)				
Related Tasks	((p))				
Learn about wireless networking	Contract of the security-enabled wireless network (WPA)	الان			
Change the order of preferred networks	((p))	00			
Change advanced settings	((p))	00			
		333			
		000			
	((q))				
	Unsecured wireless network	oll 🗸			
		nnect			

Figure 6-4 Choosing a Wireless Network -- Connected



Some laptops are equipped with a "Wireless ON/OFF" switch for the internal wireless LAN. Make sure the hardware wireless switch is switched to "ON" position.



Windows 7/8/10 (WLAN AutoConfig)

WLAN AutoConfig service is built-in in Windows 7 that can be used to detect and connect to wireless network. This built-in wireless network connection tool is similar to wireless zero configuration tool in Windows XP.

- 5.2
 - Step 1: Right-click on the **network icon** displayed in the system tray



Figure 6-5 Network Icon

Step 2: Highlight and select the wireless network (SSID) to connect

- (1) Select SSID [default]
- (2) Click the [Connect] button

Not connected	fy.	-	
Connections are available			
Dial-up and VPN	^		
Office VPN	×		
Wireless Network	^	Ш	
default	ul		
Connect automatically			
the dealership of	đ		
A-0.65	d		
co-mage a	dl		
A.8	al.	Ŧ	
Open Network and Sharing Center			

Figure 6-6 WLAN AutoConfig



If you will be connecting to this Wireless AP in the future, check [Connect automatically].



Step 4: Enter the encryption key of the wireless AP

- (1) The Connect to a Network box will appear.
- (2) Enter the encryption key that is configured in section 5.7.2.1
- (3) Click the [OK] button.

Connect to a Netw		
Type the networ	k security key	
Security key:		1
	Hide characters	-
0	You can also connect by pushing the button on the router.	
	ОК	Cancel

Figure 6-7 Typing the Network Key

Provide the set of the	×
Connecting to default	
Ĭ	
	Cancel

Figure 6-8 Connecting to a Network



Step 5: Check if "Connected" is displayed.



Figure 6-9 Connected to a Network



Mac OS X 10.x

In the following sections, the default SSID of the WDAP series is configured to "default".

Step 1: Right-click on the network icon displayed in the system tray

5.3 The AirPort Network Connection menu will appear.



Figure 6-10 Mac OS - Network Icon

Step 2: Highlight and select the wireless network (SSID) to connect

- (1) Select and SSID [default].
- (2) Double-click on the selected SSID.



Figure 6-11 Highlighting and Selecting the Wireless Network



Step 4: Enter the encryption key of the wireless AP

- (1) Enter the encryption key that is configured in section 5.7.2.1
- (2) Click the [OK] button.

The network "default" requires a WPA password.
Password:
 Show password Remember this network
(Cancel) (OK

Figure 6-12 Enter the Password





Step 5: Check if the AirPort is connected to the selected wireless network.

If "Yes", then there will be a "check" symbol in front of the SSID.

• • •	* 🛜	🔹 🔳 💽 📿 🔍
AirPort: On Turn AirPort Off		
√default	6 🛜	
Contraction of the local distance of the loc	A 🔅	
	(i:	
- diam		and the set of the
The second secon	() ()	
Transie of the second sec		
1980 C		
jost field	₽ 🔶	
ing disease	A 🔅	A CONTRACTOR
ALC: NO	A 🔶	
Join Other Network Create Network Open Network Preferences		
	_	

Figure 6-13 Connected to the Network



There is another way to configure the MAC OS X wireless settings:

Step 1: Click and open the [System Preferences] by going to Apple > System Preference or Applications

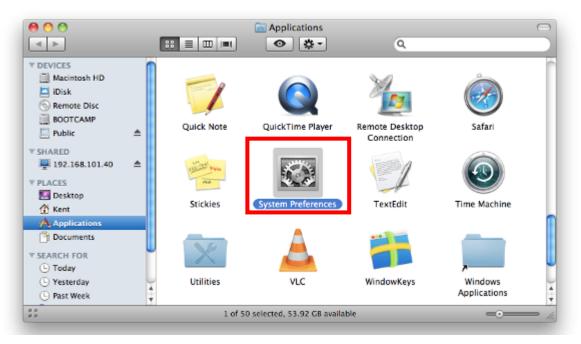


Figure 6-14 System Preferences

Step 2: Open Network Preference by clicking on the [Network] icon



Figure 6-15 System Preferences -- Network



Step 3: Check Wi-Fi setting and select the available wireless network

- (1) Choose the AirPort on the left menu (make sure it is ON)
- (2) Select Network Name [default] here

If this is the first time to connect to the Wireless AP, it should show "No network selected".

\varTheta 🔿 🔿 Network					
Show All			٩		
L	ocation: Automatic	\$			
USB Ethernet Not Connected	Status:	On T	urn AirPort Off)	
● 802.11dapter Not Connected		AirPort is turned on but is a network.	not connected to		
• AirPort	Network Name	No network selected			
● Home VPN Not Connected		1000 C	•	(f : ();-	
		default	<u> </u>	<u></u>	
				(i)	
				(î;	
			<u> </u>	(i)	
		-	0	÷ ((;	
		Join Other Network Create Network			
+ - \$-	Show AirPort statu	s in menu bar	Advanced	?	
Click the lock to preven	nt further changes.	Assist me	Revert Ar	oply	

Figure 6-16 Selecting the Wireless Network



iPhone/iPod Touch/iPad

In the following sections, the default SSID of the WDAP series is configured to "default".

Step 1: Tap the [Settings] icon displayed in the home screen 5.4



Figure 6-17 iPhone – Settings icon

Step 2: Check Wi-Fi setting and select the available wireless network

- (1) Tap [General] \ [Network]
- (2) Tap [Wi-Fi]

If this is the first time to connect to the Wireless AP, it should show "Not Connected".

iPad	10:35 AM	100% I			
Settings	General				
Airplane Mode OFF					
Wi-Fi Not Connected	About	>			
Notifications On	Usage	>			
Carrier	Sounds	>			
🕎 Cellular Data					
🙀 Brightness & Wallpaper	Network	>			
Picture Frame	Bluetooth	Off >			
General	Location Services	On >			
Salendars Mail, Contacts, Calendars	Spotlight Search	>			
Mafari Safari					

Figure 6-18 Wi-Fi Setting



Pad	10:35 AM	④ 100%
Settings	General	Network
Airplane Mode OFF		
Wi-Fi Not Connected	VPN	Not Connected >
On Notifications	Wi-Fi	Not Connected >
Carrier		
🕎 Cellular Data		
🙀 Brightness & Wallpaper		
Picture Frame		
General		
Mail, Contacts, Calendars		
M Safari		

Figure 6-19 Wi-Fi Setting - Not Connected

Step 3: Tap the target wireless network (SSID) in "Choose a Network..."

- (1) Turn on Wi-Fi by tapping "Wi-Fi"
- (2) Select SSID [default]

iPad		11:23 PM	76%	
Setting	S	Network Wi-Fi Net	works	
Mirplane Mode	OFF			
🛜 Wi-Fi 💦	Not Connected	Wi-Fi	ON	
Notifications	On	Choose a Network		
Location Service	s On	default	₽ 🌫 📀	
Cellular Data		Other	>	
🙀 Brightness & Wa	llpaper	Ask to Join Networks	ON	
Picture Frame		Known networks will be joined automatically. If no known networks are available, you will be asked		
Seneral		before joining a		

Figure 6-20 Turning on Wi-Fi



Step 4: Enter the encryption key of the Wireless AP

- (1) The password input screen will be displayed.
- (2) Enter the encryption key that is configured in section 5.7.2.1
- (3) Tap the [Join] button.

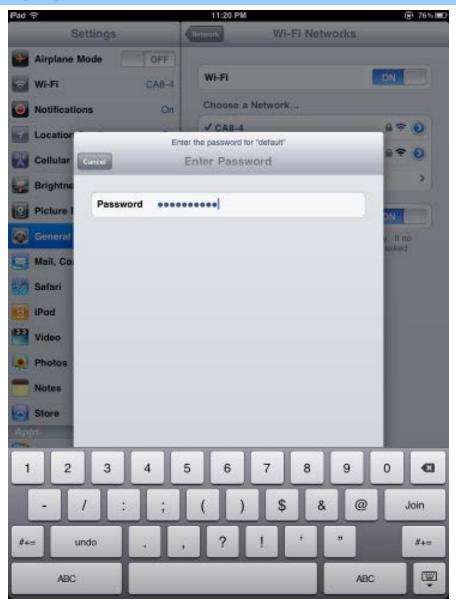


Figure 6-21 iPhone -- Entering the Password



Step 5: Check if the device is connected to the selected wireless network.

If "Yes", then there will be a "check" symbol in front of the SSID.

iPad 11:25 PM @ 75% 🗩								
Settings	Network Wi-Fi Networks							
Airplane Mode OFF								
🛜 Wi-Fi default	Wi-Fi	ON						
Notifications On	Choose a Network							
Location Services On	✓ default	₽ 🌫 🕥						
🕎 Cellular Data	Other	>						
🙀 Brightness & Wallpaper	Ask to Join Networks	ON						
Picture Frame	Known networks will be joined automatically. If no known networks are available, you will be asked							
General	before joining a new networks							

Figure 6-22 iPhone -- Connected to the Network



Appendix A: Planet Smart Discovery Utility

To easily list the WDAP series in your Ethernet environment, the Planet Smart Discovery Utility is an ideal solution.

The following installation instructions guide you to running the Planet Smart Discovery Utility.

Step 1: Deposit the Planet Smart Discovery Utility in administrator PC.

Step 2: Run this utility and the following screen appears.



Step 3: Press "**Refresh**" for the current connected devices in the discovery list as shown in the following screen:

	🤣 PLANET Smart Discovery Lite - 🗆 🗙										
Fi	File Option Help										
		C Refresh		🔀 Exit			9		RN ng & Comm		
	MAC Address	Device Name	Version	DevicelP	NewPassword	IP Address	NetMask	Gateway	Descript	ion	
1	A8-F7-E0-55-81-01	WDAP-C7210E	AP-ETSI-V3.0	10.1.20.41		10.1.20.41	255.255.255.0	10.1.20.254			
I											
Select Adapter : 10.1.20.22 (04:D4:C4:B2:69:C3)					Control Pac	ket Force Broa	dcast				
	Update Device Update Multi Update All					Connect to	Device				

Device : WDAP-C7210E (A8-F7-E0-55-81-01) Get Device Information done.

Step 3: Press "Connect to Device" and then the Web login screen appears.



The fields in white background can be modified directly and then you can apply the new setting by clicking "**Update Device**".



Appendix B: FAQs

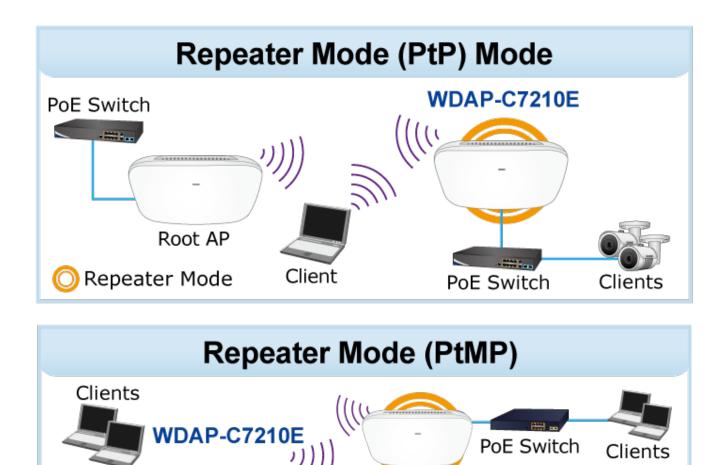
Q1: How to Set Up the AP Client Connection

Root AP

Topology:

PoE Switch

Repeater Mode



(0)

PoE Switch

Clients



Step 1. Use static IP in the PCs that are connected with AP-1(Site-1) and AP-2(Site-2). In this case, Site-1 is "192.168.1.100", and Site-2 is "192.168.1.200".

etworking			General	2010-00-00	1.12		_	
Connect using:			You can get IP settings assign this capability. Otherwise, yo					
Realtek PCIe FE	Family Controller		for the appropriate IP setting		Jurne	WORK	aun	nnstrator
		Configure	Obtain an IP address au	utomatically				
This connection uses th	e following items:		Use the following IP add	iress:				
Client for Micro			IP address:	192	. 168	. 1	•	100
QoS Packet So			Subnet mask:	255	. 255	. 255	5.	o
File and Printer	Sharing for Microsof		Default gateway:					
🗹 📥 Internet Protoc	ol Version 4 (TCP/IP	v4)	Obtain DNS server addr	ecc automatical				
 Link-Layer Top Link-Layer Top 			Use the following DNS set					
E - Bik-Layer Top	lology Discovery hes	ponder			202			
Install	Uninstall	Properties	Preferred DNS server:		÷.	•		
Description		A TRACTOR AND A	Alternate DNS server:			•		
Transmission Control wide area network pri across diverse interco	otocol that provides		Validate settings upon e	exit		(A	dvanced
deress erverse interet		<u>.</u>		180.30			-	avanceum

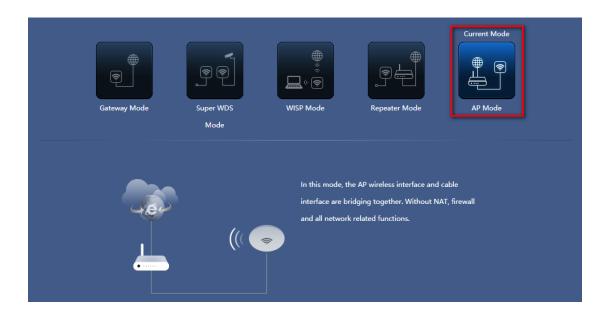
Step 2. In AP-2, change the default IP to the same IP range but different from AP-1. In this case, the IP is changed to **192.168.1.252**.

LAN Settings Snmp C	Config VLAN		
LAN Settings			
		Static IP	~
		192.168.1.252	
		255.255.255.0	
		192.168.1.1	
		114.114.114.114	
		8.8.4.4	

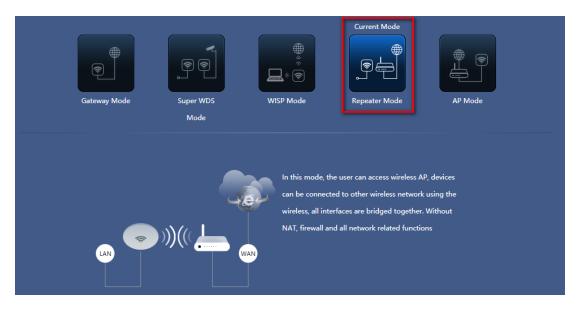
Step 3. In AP-1, go to "**Wizard**" to configure it to **AP Mode**. In AP-2, configure it to **Repeater Mode**. AP-1



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AP-2



Step 4. In AP-2, press **Scan AP** to search the AP-1. You can also enter the MAC address, SSID, encryption and bandwidth if you know what they are.

2G WiFi 5	5G WiFi	Repeater Settings	MAC ACL		Off	Advanced		
Repeater Settings								
		elect network	Jse 2G repeater	~				
			•	_				
		epeater SSID	Wireless2.4G		Scan			
		Lock BSSID						
		Encryption \	WPA/WPA2PSK_TKIPA	es 💌				
		Password	דדדדד					
		BandWidth	20M	~				
		P2P						
							Apply	



	2G WiFi	5G WiFi	Repeater Setting	gs MAC ACL	WiFi Timer Of	Off Advanced
Repeate	er Settings					
				Use 2G repeater	~	
				0		
				PLANET_2.4G	S	Scan
				A8:F7:E0:4B:27:31		•
				Open	~	
				20M	~	
				0		
						Apply

Step 5. Click "Next" to finish the setting.

ome					— Repeater I	lown Stream —	 Repeater Up Stream
			5000				
2			4500				/
izard		484					/ \
			3000				
<u> </u>	<pre>>>)))(((</pre>		2500				$+\wedge$
ViFi		WAN	2000				
				epeater Down Stre			
			10002	epeater Down Stre 020-06-09 17:15:5			
twork			1000 — <mark>R</mark>	020-06-09 17:15:			
twork	Uptime 00:11:02		1000 <u>2</u> 500 <u>0</u>	020-06-09 17:15:	4	17:16:30	17:16:45
twork			1000 R 1000 2 500 0 0	020-06-09 17:15: .00 45 17:16:	4 00 17:16:15		
twork	Uptime 00:11:02	Si LAN Inform	ation	020-06-09 17:15: .00 45 17:16: ≌ Repeater In	4 00 17:16:15 formation	2G WiFi 5G WiFi	
twork			ation 192.168.1.253	020-06-09 17:15: .00 45 17:16: # Repeater In Repeater SSID	4 00 17:16:15 formation 1 10F Lab_2:4/G	2G WiFi 5G WiFi Status	i on 🚺
twork	. Burvice Information	Lan IP Subnet	1000 2 500 0 17.15: ation 192.168.1.253 255.255.25.0	020-06-09 17:15: .00 45 17:16: Repeater Ir Repeater SSIE Channel	6 60 17:16:15 formation 1 10F Lab_2:4G 8	2G WiFi 5G WiFi Status SSID	ON 0 PLANET_2.4G_C7200
twork	Device Information CPU Usage 25%	Lan IP Subnet	ation 192.168.1.253	020-06-09 17:15: .00 45 17:16: # Repeater In Repeater SSID	4 00 17:16:15 formation 1 10F Lab_2:4/G	2G WiFi SG WiFi Status SSID Channel	0N 0 PLANET_2.4G_C7200 6
twork	. Burvice Information	Lan IP Subnet	1000 2 500 0 17.15: ation 192.168.1.253 255.255.25.0	020-06-09 17:15: .00 45 17:16: Repeater Ir Repeater SSIE Channel	6 60 17:16:15 formation 1 10F Lab_2:4G 8	2G WiFi 5G WiFi Status SSID	i ON 0 PLANET_2.4G_C7200

Step 6. Click "Repeater Information" to check connection status.

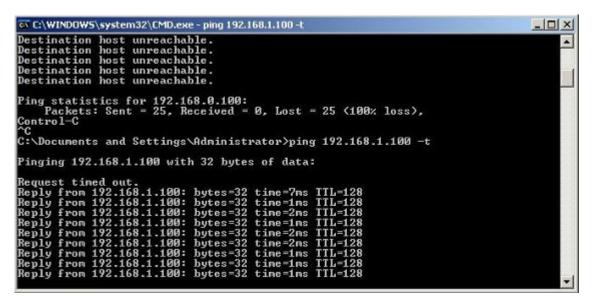
[Remark] If the signal was too high or too low that will effects the connection quality, please adjust the Tx power from web GUI or antenna to get best value about -60~-65 dBm.

Wireless Signal Status	Signal (dBm)
Too Strong	>-60dBm
Strong	-61dBm~-70 dBm
Good	-71dBm~-80 dBm
Bad	-81dBm~-90 dBm
Very Bad	<-90dBm



Step 7. Use command line tool to ping each other to ensure the link is successfully established.

From Site-1, ping 192.168.1.200; and in Site-2, ping 192.168.1.100.



Step 8. Configure the TCP/IP settings of Site-2 to "Obtain an IP address automatically".

etworking	General Alternate Configuration		
Connect using: Intel(R) PRO/1000 MT Desktop Adapter	You can get IP settings assigned au this capability. Otherwise, you need for the appropriate IP settings.		
Configure	Obtain an IP address automatic	ically	
This connection uses the following items:	O Use the following IP address:		
Client for Microsoft Networks	IP address:	(*) * *	
BAVG network filter driver Gos Packet Scheduler	Subnet mask:		
File and Printer Sharing for Microsoft Networks Anternet Protocol Version 6 (TCP/IPv6)	Default gateway:		1
Internet Protocol Version 4 (TCP/IPv4) Link-Layer Topology Discovery Mapper I/O Driver	Obtain DNS server address au	tomatically	
🗹 🛶 Link-Layer Topology Discovery Responder	O Use the following DNS server a	addresses:	
Instal Uninstal Properties	Preferred DNS server;		
Description	Alternate DNS server:		
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.	Validate settings upon exit	Adva	nced
		ОК	Cance



Step 9. Use command line tool to ping the DNS (e.g., Google) to ensure Site-2 can access internet through the

wireless connection.

C:\Windows\system32\cmd.exe - ping 192.168.1.1 -t	0 11
Reply from 192.168.1.1: bytes=32 time <ins ttl="64<br">Reply from 192.168.1.1: bytes=32 time<ins ttl="64</th"><th>-</th></ins></ins></ins></ins></ins></ins></ins></ins></ins></ins></ins></ins></ins></ins>	-
C:\Windows\system32\cmd.exe - ping 8.8.8.8 -t	
Reply from 8.8.8.8: bytes 32 time 37ms TTL-53 Reply from 8.8.8.8: bytes 32 time 38ms TTL-53 Reply from 8.8.8.8: bytes 32 time 36ms TTL-53 Reply from 8.8.8.8: bytes 32 time 36ms TTL-53 Reply from 8.8.8.8: bytes 32 time 37ms TTL-53 Reply from 8.8.8.8: bytes	

The following hints should be noted:

1) The encryption method must be the same as that of both sites if configured.

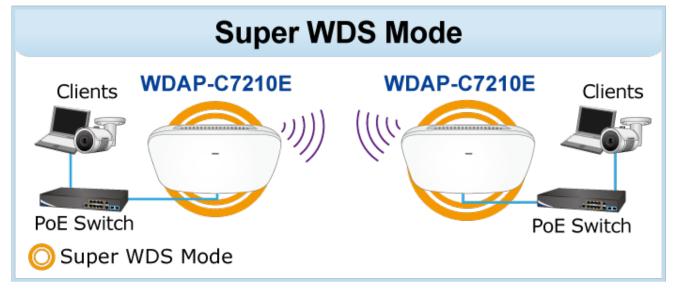


- 2) Both sites should be Line-of-Sight.
- 3) For the short distance connection less than 1km, please reduce the "RF Output Power" of both sites.
- 4) For the long distance connection over 1km, please adjust the "Distance" to the actual distance or double the actual distance.



Q2: How to set up the WDS Connection

Topology:



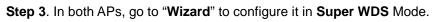
Step 1. Use static IP in the PCs that are connected with WDAP-C7210E-1 (Site-1) and WDAP-C7210E-2 (Site-2). In this case, Site-1 is "192.168.1.100", and Site-2 is "192.168.1.200".

connect using:		automatically if your network supports
Realtek PCIe FE Family Controller	this capability. Otherwise, you no for the appropriate IP settings.	eed to ask your network administrator
Configure	Obtain an IP address autom	atically
This connection uses the following items:	Use the following IP address	5:
Client for Microsoft Networks	IP address:	192 . 168 . 1 . 100
BOS Packet Scheduler	Subnet mask:	255 . 255 . 255 . 0
File and Printer Sharing for Microsoft Networks Anternet Protocol Version 6 (TCP/IPv6)	Default gateway:	• •
Internet Protocol Version 4 (TCP/IPv4) Internet Protocol Version 4 (TCP/IPv4) Internet Protocol Version 4 (TCP/IPv4)	Obtain DNS server address	automatically
Link-Layer Topology Discovery Responder	Output the following DNS served	er addresses:
Install	Preferred DNS server:	· · ·
Description	Alternate DNS server:	
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.	🔲 Validate settings upon exit	Advanced
	L	



Step 2. In AP-2, change the default IP to the same IP range but different from AP-1. In this case, the IP is changed to **192.168.1.252**.

LAN Settings		
IP Mode	Static IP	
Lan IP	192.168.1.252	
Subnet	255.255.255.0	



Home Wizard	Image: Current Mode Image: Current Mo
WiFi	In this mode, the wireless interface can be connected
WiFi	with other wireless AP through WDS, and the wireless
Network	interface and cable interface. Without NAT, firewall and
Manage	all network related functions.

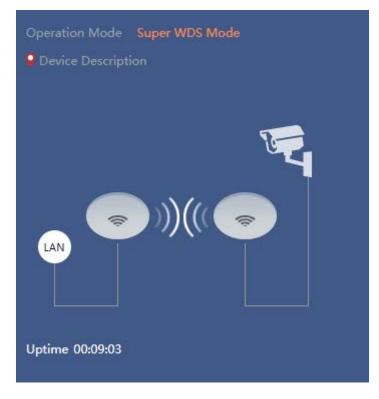
Step 4. In AP1 set up WDS SSID, for example WDS-1. Select Encrypt for WEP and enter password.



Super WDS Mode			×
0			
WDS			
SSID	WDS-1		
AP BSSID		Mark	Scan
AP BSSID		Mark	Scan
AP BSSID		Mark	Scan
AP BSSID		Mark	Scan
Encrypt	WEP 🗸	User Password 1234567890	
		Next	

Step 5. Finish the 2.4G/5G Wi-Fi and LAN setting.

Step 6. Click "Home" to check WDS status.



Step 7. In AP2 scan AP1 WDS SSID, for example WDS-1. Select Encrypt for WEP and enter password.



Wireless List		×
1	C7200E-5-1 Channel[100] MAC[A8:F7:E0:55:41:7C] Signal[-39dBm] WPA/WPA2PSK_AES	Î
();	WDS-3 Channel[100] MAC[C2:F7:E0:55:41:7C] Signal[-46dBm] WEP	
(î:	scap-ap Channel[100] MAC[BA:F7:E0:55:65:D9] Signal[-50dBm] Open	
R	WDS-1 Channel[100] MAC[C2:F7:E0:55:65:D9] Signal[-52dBm] WEP	
(]	512AC-1 Channel[100] MAC[A8:F7:E0:55:65:D9] Signal[-52dBm] WPAPSK_AES	
	VAP 5G	



Step 8. Confirm SSID and MAC. Select Encrypt for WEP and enter password.

Super W	DS Mode			×
0				
wD	s			
	SSID	WDS-2		
	AP BSSID	C2:F7:E0:55:65:D9	Mark WDS-1	Scan
	AP BSSID		Mark	Scan
	AP BSSID		Mark	Scan
	AP BSSID		Mark	Scan
	Encrypt	WEP 🗸	User Password 1234567890	
			Next	

Step 9. Finish the 5G Wi-Fi and LAN setting.

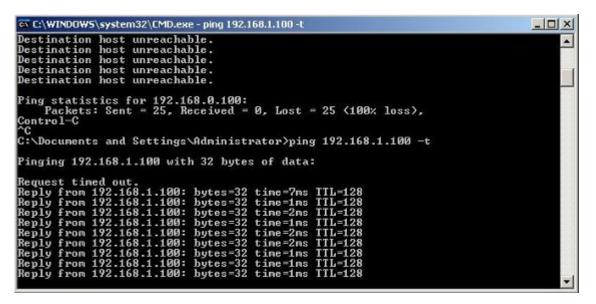
Step 10. Go to "WDS Information" to check connection status.





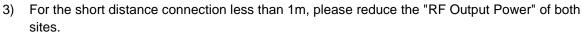
Step 11. Use command line tool to ping each other to ensure the link is successfully established.

From Site-1, ping 192.168.1.200; and in Site-2, ping 192.168.1.100.



The following hints should be noted:

- 1) The encryption method must be the same as that of both sites if configured.
- 2) Both sites should be Line-of-Sight.



4) For the long distance connection over 1m, please adjust the "Distance" to the actual distance or double the actual distance.



Appendix C: Troubleshooting

If you find the AP is working improperly or stop responding to you, please read this troubleshooting first before contacting the dealer for help. Some problems can be solved by yourself within a very short time.

Scenario	Solution	
The AP is not responding to	a. Please check the connection of the power cord and the	
me when I want to access it	Ethernet cable of this AP. All cords and cables should be	
by Web browser.	correctly and firmly inserted into the AP.	
	b. If all LEDs on this AP are off, please check the status of	
	power adapter, and make sure it is correctly powered.	
	c. You must use the same IP address section which AP uses.	
	d. Are you using MAC or IP address filter? Try to connect	
	the AP by another computer and see if it works; if not,	
	please reset the AP to the factory default settings by	
	pressing the 'reset' button for over 7 seconds.	
	e. Use the Smart Discovery Tool to see if you can find the AP or not.	
	f. If you did a firmware upgrade and this happens, contact	
	your dealer of purchase for help.	
	g. If all the solutions above don't work, contact the dealer	
	for help.	
I can't get connected to the	a. Go to 'Status' -> 'Internet Connection' menu on the router	
Internet.	connected to the AP, and check Internet connection	
	status.	
	b. Please be patient. Sometimes Internet is just that slow.	
	c. If you've connected a computer to Internet directly	
	before, try to do that again, and check if you can get	
	connected to Internet with your computer directly	
	attached to the device provided by your Internet service provider.	
	d. Check PPPoE / L2TP / PPTP user ID and password entered in the router's settings again.	
	e. Call your Internet service provider and check if there's	
	something wrong with their service.	
	f. If you just can't connect to one or more website, but you	
	can still use other internet services, please check	
	URL/Keyword filter.	
	g. Try to reset the AP and try again later.	
	h. Reset the device provided by your Internet service	
	provider too.	



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Scenario	Solution	
	i. Try to use IP address instead of host name. If you can	
	use IP address to communicate with a remote server,	
	but can't use host name, please check DNS setting.	
I can't locate my AP by my	a. 'Broadcast ESSID' set to off?	
wireless device.	b. Both two antennas are properly secured.	
	c. Are you too far from your AP? Try to get closer.	
	d. Please remember that you have to input ESSID on your	
	wireless client manually, if ESSID broadcast is disabled.	
File downloading is very slow	a. Internet is slow sometimes. Please be patient.	
or breaks frequently.	b. Try to reset the AP and see if it's better after that.	
	c. Try to know what computers do on your local network. If	
	someone's transferring big files, other people will think	
	Internet is really slow.	
	d. If this never happens before, call you Internet service	
	provider to know if there is something wrong with their	
	network.	
I can't log into the web	a. Make sure you're connecting to the correct IP address of	
management interface; the	the AP!	
password is wrong.	b. Password is case-sensitive. Make sure the 'Caps Lock'	
	light is not illuminated.	
	c. If you really forget the password, do a hard reset.	
The AP becomes hot	a. This is not a malfunction, if you can keep your hand on	
	the AP's case.	
	b. If you smell something wrong or see the smoke coming	
	out from AP or A/C power adapter, please disconnect	
	the AP and power source from utility power (make sure	
	it's safe before you're doing this!), and call your dealer of	
	purchase for help.	



Appendix D: Glossary

- 802.11ac 802.11ac is a wireless networking standard in the 802.11 family (which is marketed under the brand name Wi-Fi), developed in the IEEE Standards Association process, providing high-throughput wireless local area networks (WLANs) on the 5 GHz band.
- 802.11n 802.11n builds upon previous 802.11 standards by adding MIMO (multiple-input multiple-output). MIMO uses multiple transmitter and receiver antennas to allow for increased data throughput via spatial multiplexing and increased range by exploiting the spatial diversity, perhaps through coding schemes like Alamouti coding. The Enhanced Wireless Consortium (EWC) [3] was formed to help accelerate the IEEE 802.11n development process and promote a technology specification for interoperability of next-generation wireless local area networking (WLAN) products.
- 802.11a 802.11a was an amendment to the IEEE 802.11 wireless local network specifications that defined requirements for an orthogonal frequency division multiplexing (OFDM) communication system. It was originally designed to support wireless communication in the unlicensed national information infrastructure (U-NII) bands (in the 5–6 GHz frequency range) as regulated in the United States by the Code of Federal Regulations, Title 47, Section 15.407.
- 802.11b The 802.11b standard specifies a wireless networking at 11 Mbps using direct-sequence spread-spectrum (DSSS) technology and operating in the unlicensed radio spectrum at 2.4GHz, and WEP encryption for security. 802.11b networks are also referred to as Wi-Fi networks.
- 802.11g specification for wireless networking at 54 Mbps using direct-sequence spread-spectrum (DSSS) technology, using OFDM modulation and operating in the unlicensed radio spectrum at 2.4GHz, and backward compatibility with IEEE 802.11b devices, and WEP encryption for security.
- DDNS (Dynamic Domain Name System) The capability of assigning a fixed host and domain name to a dynamic Internet IP Address.
- DHCP (Dynamic Host Configuration Protocol) A protocol that automatically configure the TCP/IP parameters for the all the PC(s) that are connected to a DHCP server.
- DMZ (Demilitarized Zone) A Demilitarized Zone allows one local host to be exposed to the Internet for a special-purpose service such as Internet gaming or videoconferencing.
- DNS (Domain Name System) An Internet Service that translates the names of websites into IP addresses.
- > **Domain Name -** A descriptive name for an address or group of addresses on the Internet.
- DSL (Digital Subscriber Line) A technology that allows data to be sent or received over existing traditional phone lines.
- > MTU (Maximum Transmission Unit) The size in bytes of the largest packet that can be transmitted.



- NAT (Network Address Translation) NAT technology translates IP addresses of a local area network to a different IP address for the Internet.
- PPPoE (Point to Point Protocol over Ethernet) PPPoE is a protocol for connecting remote hosts to the Internet over an always-on connection by simulating a dial-up connection.
- SSID A Service Set Identification is a thirty-two character (maximum) alphanumeric key identifying a wireless local area network. For the wireless devices in a network to communicate with each other, all devices must be configured with the same SSID. This is typically the configuration parameter for a wireless PC card. It corresponds to the ESSID in the wireless Access Point and to the wireless network name.
- WEP (Wired Equivalent Privacy) A data privacy mechanism based on a 64-bit or 128-bit or 152-bit shared key algorithm, as described in the IEEE 802.11 standard.
- Wi-Fi A trade name for the 802.11b wireless networking standard, given by the Wireless Ethernet Compatibility Alliance (WECA, see http://www.wi-fi.net), an industry standards group promoting interoperability among 802.11b devices.
- WLAN (Wireless Local Area Network) A group of computers and associated devices communicate with each other wirelessly, which network serving users are limited in a local area.



EC Declaration of Conformity

English	Hereby, PLANET Technology Corporation , declares that this 11ac Wireless AP is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.	Lietuviškai	Šiuo PLANET Technology Corporation ,, skelbia, kad 11ac Wireless AP tenkina visus svarbiausius 2014/53/EU direktyvos reikalavimus ir kitas svarbias nuostatas.
Česky	Společnost PLANET Technology Corporation, tímto prohlašuje, že tato 11ac Wireless AP splňuje základní požadavky a další příslušná ustanovení směrnice 2014/53/EU.	Magyar	A gyártó PLANET Technology Corporation , kijelenti, hogy ez a 11ac Wireless AP megfelel az 2014/53/EU irányelv alapkövetelményeinek és a kapcsolódó rendelkezéseknek.
Dansk	PLANET Technology Corporation, erklærer herved, at følgende udstyr 11ac Wireless AP overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/53/EU	Malti	Hawnhekk, PLANET Technology Corporation, jiddikjara li dan 11ac Wireless AP jikkonforma mal-ħtiģijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 2014/53/EU
Deutsch	Hiermit erklärt PLANET Technology Corporation , dass sich dieses Gerät 11ac Wireless AP in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 2014/53/EU befindet". (BMWi)	Nederlands	Hierbij verklaart , PLANET Technology orporation, dat 11ac Wireless AP in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2014/53/EU
Eestikeeles	Käesolevaga kinnitab PLANET Technology Corporation, et see 11ac Wireless AP vastab Euroopa Nõukogu direktiivi 2014/53/EU põhinõuetele ja muudele olulistele tingimustele.	Polski	Niniejszym firma PLANET Technology Corporation , oświadcza, że 11ac Wireless AP spełnia wszystkie istotne wymogi i klauzule zawarte w dokumencie "Directive 2014/53/EU .
Ελληνικά	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ , PLANET Technology Corporation, ΔΗΛΩΝΕΙ ΟΤΙ ΑΥΤΟ 11ac Wireless ΑΡΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2014/53/EU	Português	PLANET Technology Corporation, declara que este 11ac Wireless AP está conforme com os requisitos essenciais e outras disposições da Directiva 2014/53/EU.
Español	Por medio de la presente, PLANET Technology Corporation, declara que 11ac Wireless AP cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 2014/53/EU	Slovensky	Výrobca PLANET Technology Corporation , týmto deklaruje, že táto 11ac Wireless AP je v súlade so základnými požiadavkami a ďalšími relevantnými predpismi smernice 2014/53/EU.
Français	Par la présente, PLANET Technology Corporation , déclare que les appareils du 11ac Wireless AP sont conformes aux exigences essentielles et aux autres dispositions pertinentes de la directive 2014/53/EU	Slovensko	PLANET Technology Corporation, s tem potrjuje, da je ta 11ac Wireless AP skladen/a z osnovnimi zahtevami in ustreznimi določili Direktive 2014/53/EU
Italiano	Con la presente , PLANET Technology Corporation, dichiara che questo 11ac Wireless AP è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/53/EU.	Suomi	PLANET Technology Corporation, vakuuttaa täten että 11ac Wireless AP tyyppinen laite on direktiivin 2014/53/EU oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Latviski	Ar šo PLANET Technology Corporation, apliecina, ka šī 11ac Wireless AP atbilst Direktīvas 2014/53/EU pamatprasībām un citiem atbilstošiem noteikumiem.	Svenska	Härmed intygar, PLANET Technology Corporation, att denna 11ac Wireless AP står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2014/53/EU.