User Manual of 11ac Wave2 Tri-band AP

This is the user manual of 11ac Wave2 Tri-band AP, which will approximate guide you how to set and apply the Ceiling AP, it provide a convenient graphical interface for network construction and maintenance person, as well as a user through a simple and accurate operation, and configuration management of the ceiling wireless access point.

1st Hardware and Operation mode Instruction



LED indicator:

Green: Power Indicator Blue: WiFi Indicator

AP Interface:



RST: Reset Button, it make AP revert to default data after press it 15 seconds.

WAN: Gigabit WAN Port, connect with ADSL modem or Internet mainly. It will be LAN port under Wireless AP and WiFi Repeater operation mode

LAN: Gigabit LAN Port to end users

LED: LED Indicator of WAN port and LAN port

DC: DC power connector

AP installation:



Power Supply and working diagram:

1. Work at home:

If work at home, this device can be power by DC adapter or PoE adapter. Then access into IP address 192.168.188.253, switch to FAT AP mode and setup the SSID. User can choose gateway or AP operation mode based on their Internet environment and structure.



P1 Working diagram

2. Work in business area:

This wireless AP work in most business area like hotel, school, hospital, shopping wall etc.

In this application, it work in FIT AP mode, powered by PoE switch, managed by AC controller in centrally or remotely. The working diagram showed as follow:



P2 Working Diagram



P3 Working Diagram

Connect Wireless AP with PC:

Use can connect the PC with wireless AP by Wireless SSID and LAN cable: The diagram of wireless connection showed as follow: PIs note: the default SSID is WirelessAP2.4G/5.8G, SSID's password is 66666666



The diagram of LAN cable connection showed as follow:



P5 Wired Connection

2nd: Login

1) Connect the Ceiling AP with computer

2) Configure the PC's local connection IP address as 192.168.188.X (X is number from 2 to 254), subnet mask is 255.255.255.0, follow P4 and P5 to finish.

8	Disable
	Status
	Repair
	Bridge Connections
	Create Shortcut
	Delete
	Rename
	Properties

P5 Setting of computer's IP address

different ?	Internet Protocol (TCP/IP) Properties 🛛 😰			
immal Advanced	Gerend			
Connect using Qualcom: Atheos AR8151 PCI E Bit Configure.	You can get IP settings arrighted automatically if your retrivoit, supports this capability. Ditremois, you need to ask your network administrator for the appropriate IP settings.			
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OK Carol	OK Cancel			

P 6 Setting of computer's IP address

Input 192.168.188.253 into IE browser, then pop up the login page, the default login user name: Admin,
 Passwords: admin, pls do following P6



P7 Login

3rd : WEB GUI interface Setting:

1) Home

After login, if default mode is FIT AP, then following device status will be showed:

Information		
	16 September 20211062002233	
	Selver 251252200	
	MACAABee 44012A200271	
	Germany, 192,108,108,1	
	AC AMERICA 102.346.03.1	
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In fit AP, user can configure the IP mode, reset and reboot this device. Other configurations is managed by AC

controller in centrally. Click FIT AP, then switch to FAT AP.

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-	# Devis Designer	\$1015-1	

For the FAT AP, the login page showed as follow:

P7: Device Status

FAT AP: Mean this AP in FAT mode now, click here to change to FIT AP if need. Pls note: FAT AP comply with SNMP protocol, can be configured through GUI interface or managed by SNMP controller. FIT AP comply with CAPWAP protocol, can be managed by CAPWAP controller.

Operation mode: the default operation mode is AP; But in FAT AP, it support gateway, repeater, WISP operation mode also.

In the above picture, showed in AP operation mode, CPU usage, AP location, LAN IP and Wi-Fi status. And it can view user Wi-Fi connection information after click user quantity:

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		•				

P8 client list

2) Wizard

In FAT AP ,support Gateway, Repeater, WISP and AP operation mode, which can be set in Wizard. Let's show this

operation mode one by one:



P9 Wizard

2.1 Gateway mode

Click Gateway mode, will ask for WAN settings, use choose the right internet mode based on their network structure,

then click to continue.

Image: Contract of the contra	-
WAN Settings Image: Contract of the set	
Marriel Missie Deck . *	

P10. WAN setting in Gateway Mode

After configure the WAN setting, continue to Wi-Fi setting, including 2.4G Wi-Fi setting and 5G Wi-Fi setting:

In this part, mainly to set the SSID, channel, password, security

Gateway Mode				×
0			-4	0
2G WiFi Setting				
WiFi Status	()			
SSID	Wireless 2.4G			
	Hide your SSID ?			,
Channel	20M v	9 1	7	
Encrypt	Encryption	,	7	
WiFi Password	66666666			
	Back	Next		

Gateway Mode				×
1 2 Set the first 5G WiFi	3)	0	0
WiFi Status				
SSID	Wireless 5.8G	1		
	Hide your SSID	1?		
Channel	40M •	44	τ.	
Encrypt	Encryption		¥	
WiFi Password	66666666			
	Back	Next		

P11 Wireless Setting in Gateway Mode

When click Next, then will complete the Gateway mode setting and show following picture, this AP will be reboot after

click OK.

Gateway Mode					
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			ОК	Cancel	



When return to Status, the page showed as follow:

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2.2 WiFi Repeater mode

Click WiFi Repeater operation mode in Wizard, then following page will pop up, scan the Wi-Fi and choose the SSID to

be bridged, then next.

	Repeater Mode			×
	• •			
	Repeater Settings			
	Select network	Une 20 repeater		
	Repeater 110	Windmis2.40	(Scien)	
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	Deception	WPAMTHOPSIC TROMOST		
		05060005		
	(Land Web)	2004		
	101			
		(Heat)		
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P14 Repeater Mode

After click Next button, then should configure the wireless setting as follow, then click Next to set SSID, password,

channel, for broadcast 2.4G Wi-Fi and 5G Wi-Fi	
Perester Mode	

Repeater Mode				×
00			-0	0
2G WiFi Setting				
WiFi Status	()			
SSID	Wireless 2.4G			
	Hide your SSID ?			
Encrypt	Encryption	•		
WiFi Password	66666666			
	Back	Next		

Repeater Mode				×
0 2	•		-0	0
Set the first 5G WiFi				
WiFi Status				
SSID	Wireless 5.8G_1			
	Hide your SSID ?			
Encrypt	Encryption	×		
WiFi Password	66666666			
	Back	Next		

P15 Wireless Setting in Repeater Mode

Click Return button, will back to Status, show Repeater mode data, show fail or success, and user can configure this

data in this page if required.

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P16 Status in Repeater Mode

2.3 WISP Operation mode:

Click WISP operation mode in Wizard, then will pop up the configure page, pls set the WISP operation mode based on the step showed in picture:

WISP Mode						×
1			•		0	0
Repeat	er Settings					
	BandWidth	Use 2G repeate	er			
	Repeater SSID	Wireless2.4G			Scan	
	Lock BSSID				D	
	Encryption	WPA/WPA2PSI	K_TKIPAES	×		
	Password	66666666				
	BandWidth	20M		2.98		
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		Ne	xt			
5						.19

P17 WISP Mode

Configure the right WAN setting in WISP operation mode, then next.



P18 WAN setting in WISP mode

Configure wireless data showed as follow, including 2.4G Wi-Fi and 5G Wi-Fi

2G WiFi	Setting					
	WiFi Status					Ð
	SSID	Wireless 2.4G				
		Hide your SSID ?				
	Encrypt	Encryption		×		
	WiFi Password	66666666				
		Back	Next			R,
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P19 Wireless Setting in WISP mode

Then complete and back to status, will show the connection fail or success, then can configure the data based on request:

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P20 Status in WISP mode

2.4 AP Operation mode:

For the AP mode, mainly from cable internet to Wi-Fi internet.

And for this AP, user can set fixed IP address for AP in LAN setting, or make AP obtain the IP address from gateway or

AC controller. If obtain the IP address from gateway, mean IP address will be same segment of gateway; And if obtain

IP address from AC controller, should set IP segment in the address server in AC controller part.

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LAN Settings			
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	Subret 205	P.Flort, Estimay 255.255.0	
	Gateway 102.	168.188.1	
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		Net	i i
			1995

P21 LAN setting in AP Mode

Click next in LAN setting, enter into wireless setting to set the SSID, password, channel, including 2.4G Wi-Fi and 5G

Wi-Fi

AP Mode							×	
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2G WiFi Settir	ıg							
	WiFi Status (
	SSID	Wireless 2	.4G					
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	Channel	20M	T	9	*			
	Encrypt	Encryption			iy:			
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P22 Wireless Setting in AP Mode

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P23 Status in AP Mode

In WiFi setting, user can set SSID, channel, password, bandwidth for 2.4G wireless, 5.8G Wireless

Let's Click WiFi in home page, will show return home, will show 2.4G WiFi, 5G WiFi, MAC ACL, WiFi Timer off and

Advance:

For 2.4G WiFi, 5G WiFi, it is same configuration we showed in Wizard.

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P24 WiFi

In the above picture, we can find WiFi Analyzer: Mainly to analyze the AP's signal strength in some channel, then make



AP work in the channel with small quantity of AP, to avoid WiFi interference.

P25 Wireless Analyzer

Virtural AP:

There are 3 virtual AP in 2.4G wireless, if need virtual SSID, then users can configure it showed in following picture: Click VAP1 in 2G WIFI--Enable WiFi status--input SSID, password--Click Apple to enable multi-SSID for 2.4G WiFi.

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	With Shares 552D Frangel With Parameters	MARKE		Analysis

P26 Virtual AP

MAC ACL: Mean MAC access control: allow or deny user access by MAC address.



P27 MAC Access Control

WiFi Timer Off: mean WiFi SSID will be off in the configured time.

Enable WiFi time off, set WiFi off time, then apply to finish.



P28 WiFi Timer Off

Advanced Settings:

In this page, will show the region, RF Power, Max user access...

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	303 Male	HAC		
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	TXT	Max		
	Protocold No.	1017		
	DFE	(0)++		

P29 Advanced Setting

Country Region: can choose China, USA, Brazil, UAE, ETSI, India.

2G mode: including 11n/g (40MHz), 11b/g(20MHz)

5G mode: including 11a(20MHz), 11an(40MHz), 11ac(80MHz)

Multicast Fast: Default is off, but can choose 6M,9M, 12M, 18M, 24M, 36M, 54M

Maximum for per AP: mean maximum user for each band.

WLAN Partition: mean user isolation, default is disable.

Short GI: data isolation, default is on.

Coverage Threshold: The input data is signal strength that user connect with AP. The data is smaller, then mean user will connect with weak signal AP; the data is larger, mean user will connect to the stronger signal AP. Recommend to input -90dBm.

TX Power: mean RF power is adjustable; Max mean the RF power showed in data sheet; Efficient: 4dBm lower than max; Enhanced: 4dBm lower than efficient...

Preferred 5G: mean band steering, 5G priority. Enable it, then mobile phone will connect with 5G SSID in priority.

DFS: special channel, most suit for USA, default is disable.

4.Network setting:

In this page, mainly to show the LAN setting, VLAN setting and cloud server setting.

	LAM Geninger, VLAN Series	#F	Cloud Server Settings		
	LAN Settings				
		Mode	Example TP		
		Lies.3F	192,168,188,253		
		Safarret	255,255,255,0		
		attemp	192.148.108.1		
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	DHCP Servet				
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P30 Network Setting

LAN Setting:

LAN Sector	State Dick	AN Settings Cla	aid Server Settings	
tive Generation				
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	Subort.	255,255,255,8		
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				Apple

P31 WiFi Timer Off

VLAN setting:

This AP support tag VLAN based on SSID. Input VLAN ID in 2G SSID, then when user access into this SSID, it get

data from VLAN switch.

Network--VLAN setting--ON- Input VLAN ID on SSID--Apply.

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36 86811	And the second particular	ALC: No. of Concession, Name	
SUMPLE .			

P32 Tag VLAN Setting

Cloud Server setting:

In this part, make AP access into cloud server for remote management. But make sure: A.the AP in Internet access

LAN Settings	VLAN Senlegs	Goul Sever Settings	
Cloud Server Settings	Cloud Server Cloud Server Binding Code	eeee yaardibist	(Apply)

already; B. Had registered ID from our cloud www.yowifi.net.

P33 Cloud setting

Management:

In this part, show the device backup, reboot, password modify, firmware upgrade and log.

	- Beckup	Save the configuration file to your computer
2	Reset Default	Restore the factory default settings, please press this button
	Televit	الافور كالشيد ويعربها والفاكر

P34 Management

Backup: Mean if you do some configure for this AP, then can save this configuration in file to computer. Next time if

reset the AP, then restore this backup file to restore this AP with same configuration before reset.

Reset default: mean restore to factory default settings, all configuration will be missed.

Telnet: Enable this, mean can do engineer debug, but have risk in hacking.

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Reboot: Reboot the device immediately, or reboot the device in certain time. Can reboot everyday or every week.

P35 Reboot

Modify password: Modify WEB GUI login password, the default is admin.

Configure Released Modily Present	stands from the	
Chil Passanti Nove Passanti Confirm Passanti		Applay

P36 Modify password

Upgrade firmware: Mean upgrade new firmware for this wireless AP, but before upgrade, pls note: A. the device can upgrade the firmware in newest version, can't upgrade old version; B. don't power off the device when upgrade the firmware; C. Reset the AP after firmware upgrade.

	Configure follows Medly Parsword Degrade: Time Log
	Tilgriede
	Tension/TT 10000 Advicts 3 Subattitions of
1	Whether to resume the factory strillguration
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P37 Firmware Upgrade

Time: Mean set system time for wireless AP.

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P38 Time

Log:this is for AP working information, can export for problem recovery.

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P39 System info

4th Share Internet and Obtain IP address automatically

Set computer's TPC/IP as Obtain an IP address automatically, Obtain DNS server address automatically as

following picture showed.

the computer will obtain the IP address from router or base station to get Internet.

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Paperter Don	Effektione where the connection has been a recommender.	(Atreat
	Toron Canada	

P40 Fix IP.

Trouble Shooting:

F 1 The Failure phenomenon and solution

Failure phenomenon	Solution
SYS Indicator off	Pls make sure the PoE module connection is right. POE Port connect with AP, LAN port connect with computer
Can't land to Wireless AP through Web page	Pls check the IP address of computer and Wireless AP to see whether they are in same networking segment, The method is click "start"-"Run" input"cmd", ping 192.168.188.253 to test the Wireless AP connectivity. Reset Wireless AP and load it again; Pls make sure the IP address 192.168.188.253 is not occupied by other device in Wireless AP's networking; Check computer and cable problem, recommend to use 10/100M UTP unshielded cable; Clean up Arp binding from "Start"-"Run" input"cmd" arp –d Clean the IE Brower's temporary files and Cache file。
Wireless AP can't connect with AP (the status display unconnected)	Try to scan the avaliable wireless networking again; Make sure the Wireless AP's wireless standard (11b/g/n, 2.4G) is correct; The Security and passwords are matched between Wireless AP and AP; The signal strength of AP is too weak to connect, should be more than -75dBm;
Can't scan the wireless AP	Scan it several times more; Make sure there are 5G signal existed. Reset the Wireless AP, scan it again after Wireless AP restart;
The connection of Wireless AP and AP is success, but the computer can't share internet	Pls Check the computer's IP address and DNS setting. If it is dynamin, set the network card as automatically obtain. If it is static IP, pls contact with ISP for correct IP address and DNS address.
How to Reset Wireless AP	Press the "Reset" button more than 15 seconds after power on. The Wireless AP will restore factory default after the Wireless AP restart.

Warning:

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the 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:

- Reorient or relocate the receiving antenna.
- -- Increase the separation between the equipment and receiver.
- -- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

NOTE: This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter

RF Exposure Statement

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance of 20cm the radiator your body. This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter