## oirlive® User's Manual

## Wi-Fi 5Ghz N300 Outdoor CPE

► AirMax5x II

## airlive°

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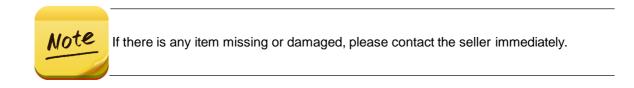
### **Chapter 1. Product Introduction**

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**1.1 Package Contents** 

Thank you for choosing AirLive AirMax5x II Wireless AP. Please verify the contents inside the package box.

Package Contents of AirMax5X II						
AirMax 5X II	Quick Guide	Ethernet Cable	Mounting Strap			
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### **1.2 Product Description**

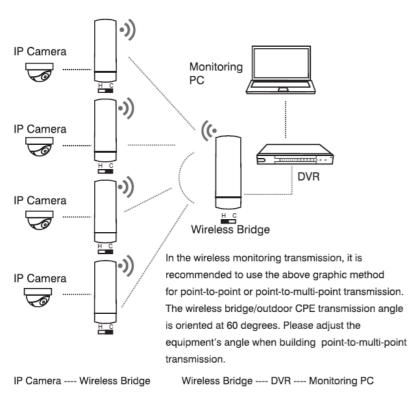
#### **Flexible and Reliable Outdoor Characteristics**

With the passive PoE design, the AirMax5X II(outdoor wireless CPE) can be easily installed in the areas where power outlets are not available. The outdoor wireless CPE is definitely suitable for wireless IP surveillance, and br idge link of building to building and backbone of public service. Additionally, the **self-healing** capability keeps connection alive all the time. With the **IP65-rated** outdoor enclosure, the outdoor wireless CPE can perform normally under rigorous weather conditions, meaning it can be installed in any harsh, outdoor environments

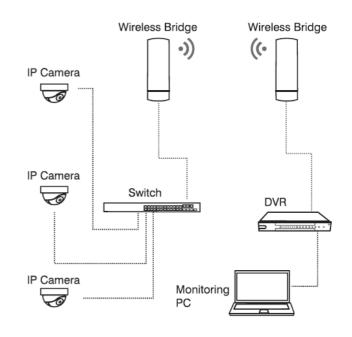
#### **Designed for Various Requirements**

The outdoor wireless CPE is specially designed for long-distance outdoor surveillance and wireless backhaul solutions that are capable of establishing stable bridge connection through the embedded antenna. To provide maximum performance, the outdoor wireless CPE can implement up to AP/Repeater operation modes where a multitude of applications in communities, warehouses, campuses, harbors, etc. can be made.

### Point to multiple point



#### Point to Point



IP Camera --Switch --Wireless Bridge Wireless Bridge--- DVR ---Monitoring PC

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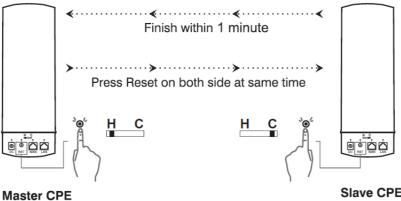
### **Multiple SSIDs with VLAN Tagging**

The outdoor wireless CPE supports WPA/WPA2, and the 802.1X RADIUS authentication to secure the wireless connection. Besides, the supported IEEE 802.1Q VLAN allows multiple VLAN tags to be mapped to multiple SSIDs to distinguish the wireless access. This makes it possible for the outdoor wireless CPE to work with managed Ethernet switches to have VLANs assigned to a different access level and authority.



### 3 Simple Steps to Set Up Point to Point/Point to Multi-Point

Without needing to enter the Web interface for configuration, the outdoor wireless CPE needs three simplesteps to establish the PtP/PtMP connection without any difficulty. By just clicking the Pair button on the AirMax5X II and within 2 minutes, you can connect two AirMax5X IIs without complicated configuration.







#### **Optimized Efficiency in AP Management**

The brand-new GUI configuration wizard helps the system administrator easily set up the outdoor wireless CPE 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 scheduling reboot setting, the outdoor wireless CPE is easier for the administrator to deploy and manage without on-site maintenance. Moreover, you can simply use AirLive AP Controller, to deliver wireless profiles to multiple APs simultaneously, thus making the central management simple.

### **1.3 Product Features**

### Industrial Compliant Wireless LAN and LAN

- Compliant with the IEEE 802.11b/g/n and IEEE 802.11a/n wireless technology
- 2T2R architecture with data rate of up to 300Mbps
- Equipped with two 10/100Mbps RJ45 ports with auto MDI/MDI-X supported

### Fixed Network Broadband Router

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

### RF Interface Characteristics

- Built-in 14dBi dual-polarization antenna (AirMax5X II)
- Built-in 10dBi dual-polarization antenna (AirMax2X II)

### > Outdoor Environmental Characteristics

- IP65 rating
- Passive PoE 48VDC inject
- Operating temperature: -20~70 degrees C

### Multiple Operation Modes and Wireless Features

- Multiple operation modes: AP, Repeater
- 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

### Secure Network Connection

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

- 3 simple steps to establish WDS connection easily
- Supports AirLive AP Controllers in AP mode
- Self-healing mechanism through system auto reboot setting
- System status monitoring through remote Syslog Server

### **1.4 Product Specifications**

Model Name	AirMax2 II			Airl	Max5X II			
Description	AirMax5X II:	AirMax5X II: 5.8GHz 802.11n 300Mbps			oor Wireless C	PE		
Description	AirMax2N: 2.4GHz 802.11n 300Mbps Outdoor Wireless CPE							
Hardware Features								
	Wireless IEEE802.11 a/n, 2T2R			Wireless IEEE 802.11a/b/n, 2T2R				
Interfaces	PoE: 1 x 10	/100BASE-TX	, auto-MD	I/MD	IX, Passive P	oE PD		
	LAN: 1x 10/	LAN: 1x 10/100BASE-TX, auto-MDI/MDIX						
	Built-in 8dBi directional antenna with			Buil	lt-in 14dBi dir	ectional anten	na with dual	
Antennas	dual polarization			pola	arization			
Button	Reset/Pair I	button, WiFi M	lode Switc	h				
Dimensions	26.19*8.82*	5.82 cm						
Weight	405g							
Power Requirements	48V Passiv	e PoE						
Power Consumption	<13W							
Wireless Interface Specificati	ons							
	IEEE 802.1	1b/g/n		IEE	E 802.11a/n			
		IEEE 802.11i			E 802.11i			
Standard	IEEE 802.3 10BASE-T				IEEE 802.3 10BASE-T			
	IEEE 802.3u100BASE-TX				IEEE 802.3u 100BASE-TX			
		IEEE 802.3x flow control			IEEE 802.3x flow control			
Media Access Control	CSMA/CA							
	802.11b/g/n: OFDM (BPSK/ QPSK/							
Modulation	16QAM/ 64QAM)			802	2.11a/n: OFDI	M (BPSK/ QP	SK/ 16QAM/	
	802.11b: DSSS (DBPSK/ DQPSK/			640	QAM)			
	ССК)							
Frequency Band	FCC: 2.412~2.462GHz			FC	C: 5.180~5.2	40GHz, 5.745	5~5.825GHz	
	ETSI: 2.412~2.472GHz			ET	SI: 5.180~5.7	00GHz		
				FCC: 36, 40, 44, 48, 149, 153, 157, 161,				
				165	(9 channels)			
				ET	ETSI: 36, 40, 44, 48, 100, 104, 108, 112,			
Operating Channels	FCC: 1~11	Channels		116	6, 132, 136, 1	40 (16 chann	els)	
Operating Channels	ETSI: 1~13 Channels							
						ist will very i		
			countries according to their					
				reg	ulations.			
Max. Transmit Power	FCC: up to 20 dBm		FCC: up to 26dBm					
(dBm)	ETSI: < 20dBm (EIRP) ETSI: < 20dBm (EIRP)							
	Network		Receive		Network		Receive	
		Data Rate	Sensitiv	ity	Mode	Data Rate	Sensitivity	
	Mode	Mode			moue		(dBm)	
	802.11b	1Mbps	-95					

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### User Manual of AirMax5X II

			1			-7-
		11Mbps	-90			
	802.11g	6Mbps	-90	802.11a	6Mbps	-92
	Ū	54Mbps	-72		54Mbps	-75
	802.11n	MCS0/MCS 8	-90	802.11n	MCS0/MC S8	-91
	HT20	MCS7/MCS 15	-72/-68	HT20	MCS7/MC S15	-72
	802.11n	MCS0/MCS 8	-90	802.11n	MCS0/MC S8	-88
	HT40	MCS7/MCS 15	-72/-68	HT40	MCS7/MC S15	-70
Environment & Certification						
Operating Temperature	-30 ~ 70 de	egrees C				
Operating Humidity	5 ~ 95% (n	on-condensing	)			
IP Level	IP65					
ESD Protection	± 8kV air-gap discharge ± 6kV contact discharge					
Surge Protection	±4kV					
Regulatory	CE, RoHS					
Software						
LAN	Static IP Supports IP-MAC binding					
WAN Type (GW/WISP mode)	Static IP					
Wireless Modes						
Channel Width	20MHz, 40	MHz				
Encryption Type	WPA, WPA-PSK, WPA2, WPA2-PSK, 802.1X					
	Enable/Dis	able SSID Broa	adcast			
Wireless Security	Wireless MAC address filtering					
14 0015	User Isolation					
Max. SSIDs	4					
Max. Wireless Clients	64 per radio					
Max. WDS Peers	4 (Up to 3 peers)					

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Wireless QoS	Supports Wi-Fi Multimedia (WMM)
	Auto Channel Selection
	WLAN Partition
Wireless Advanced	Client Limit Control, Coverage Threshold
	Distance control (Auto Ack Timeout)
	Wi-Fi channel analysis chart
	Fast Roaming
	Device status, wireless client List
Chattan Manufaction	AirLive 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 WEB/Telnet
	Configuration backup and restore
	Supports UPnP
Management	Supports IGMP Proxy
	Supports PPTP/L2TP/IPSec VPN Pass-through



### **Chapter 2. Hardware Installation**

### 2.1 Product Outlook

AirMax5X II/2X II

Dimensions: 87 x 38 x 260mm

**Front Side** 





**Rear Side** 



Figure 2-2 AirMax5X II/2XII Rear Side



**Right Side** 

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### Figure 2-3 AirMax5X II Right Side

Figure 2-4 AirMax2X II Right Side

### **LED Definition**

LED	State	Meaning
Dower	On	The device is powered on
Power	Off	The device is powered off
	On	Port linked
WAN Port	Blinking	Data is transmitting or receiving data
	Off	Nolink
	On	Port linked
LAN Port	Blinking	Data is transmitting or receiving data
	Off	Nolink
	On	The wireless radio is on
WLAN	Blinking	Data is transmitting or receiving over wireless
	Off	The wireless radio is off



### Port and Button

It provides a simple interface monitoring the AP. Figure 2-5 shows the hardware interface of the AirMax5X II/2XII.

AirMax5X II/2XII Hardware Interface:



Figure 2-5 AirMax5X II Interface

### **Hardware Description**

### Hardware Interface Definition

Object	Description
PoE LAN Port	10/100Mbps RJ45 port, auto MDI/MDI-X
LAN Port	10/100Mbps RJ45 port, auto MDI/MDI-X
PtP Switch	Position " <b>Master</b> " to "Slave" on the AP.
	Press and hold the <b>Reset</b> button on the device for over 15 seconds to return to the factory default setting.
Reset/Pair Button	Press the " <b>Reset/Pair</b> " button on both APs to be connected in 2 minutes. The connection has been successfully established.



### **Chapter 3. Connecting to the CPE**

### 3.1 System Requirements

- Broadband Internet Access Service (Cable/xDSL/Ethernet connection)
- Passive PoE 48V(supply power to the AirMax5X II/2XII)
- 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

Note 1. The CPE in the following instructions refers to AirLive AirMax5X II. 2. It is recommended to use Internet Explorer 11, Firefox or Chrome to access the CPE.

### 3.2 Installing the CPE

Before installing the CPE, 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 k eep your hands dry.

Step 1. Push the latch on the bottom of the Outdoor Wireless CPE to remove the sliding cover.

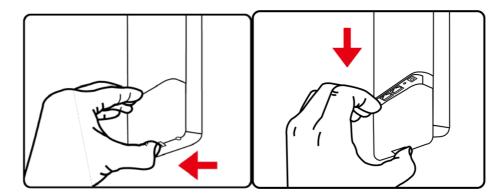


Figure 3-1 Connecting the Antenna

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**Step 2.** Plug the RJ45 Ethernet cable into the PoE port of the Outdoor Wireless CPE. Then, slide back the cover to finish the installation.

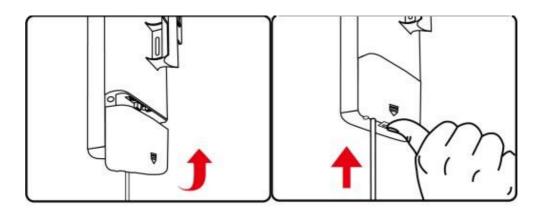
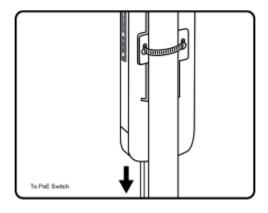


Figure 3-2 Connecting the Ethernet cable

**Step 3.** Place the mounting strap through the slot on the back of the Outdoor Wireless CPE and then around the pole. Tighten the mounting strap to secure the Outdoor Wireless CPE.





### Chapter 4. Quick Installation Guide

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



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

### 4.1 Manual Network Setup -- TCP/IP Configuration

The default IP address of the AirMax5X II 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 AirMax5X II with your PC by an Ethernet cable plugging in LAN port on one side and in LAN port of PC on the other side. Please power on the AirMax5X II by PoE switch through the PoE port.

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.

### **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 AirMax5X II 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, as the default IP address of the AirMax5X II is 192.168.1.253 and the DSL router is 192.168.1.254, you may choose from 192.168.1.1 to 192.168.1.252.

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nced

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.

=	<b>፼</b> <u>D</u> ⊚	Filters $\checkmark$
ଭ	Best match	
	Command Prompt Desktop app	
	Documents (3+)	
٢		
2		
	∽ 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: \>
· · · · · · · · · · · · · · · · · · ·

Figure 4-3 Successful Result of Ping Command



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

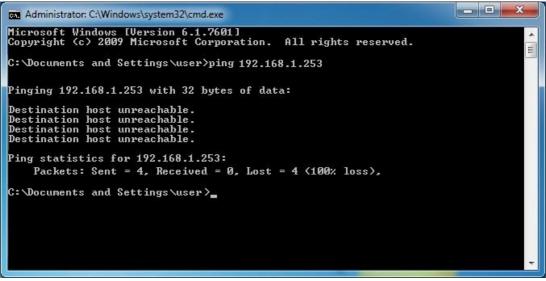


Figure 4-4 Failed Result of Ping Command

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.

### 4.2 Starting Setup in the Web UI

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

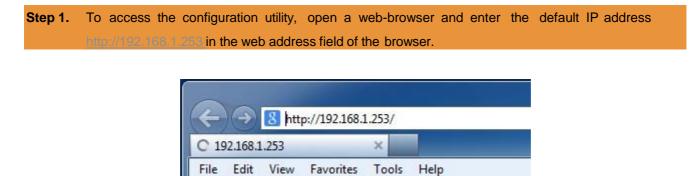


Figure 4-5 Login by Default IP Address

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.





### Default IP Address: 192.168.1.253

Default ID/Password: admin

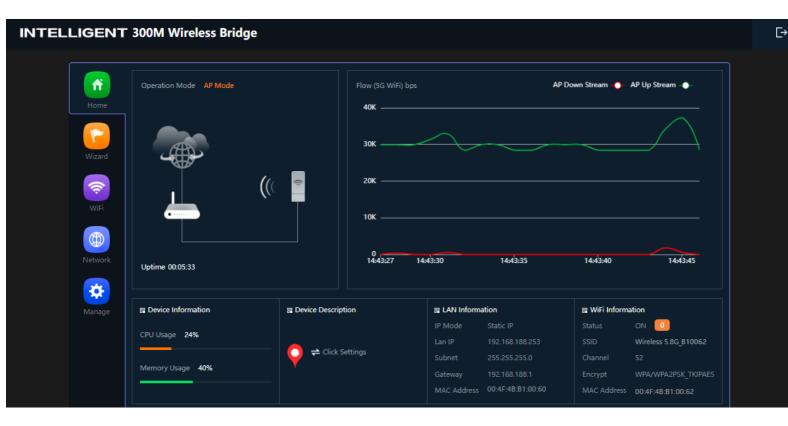
Note

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 5. Configuring the CPE

This chapter delivers a detailed presentation of CPE's functionalities and features 3 main items below, allowing you to manage the CPE with ease. The screen shots use the AirMax5X II as an example.



The page includes the following fields:

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 (2.4G/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.).



### 5.1 Wizard

The Wizard guides you to configuring the AirMax5X II in a different mode, including AP ,Repeater mode.



Figure 5-2 Operation Mode



The default operation mode is AP mode.

Change the PtP switch to optional AP/repeater mode.



### 5.2 AP Mode

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

AP Mode		×
1 LAN Settings		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	
	Next	

Figure 5-2 AP Mode

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	Enter the network mask
Gateway	Enter the default gateway IP address
Primary DNS	Enter the primary DNS IP address, or not insert ip address
Secondary DNS	Enter the secondary DNS IP address, or not insert the ip address

Image: Street Stree

Figure 5-21 AP Mode – Set up Wi-Fi The page includes the following fields:

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 "AirLive_2.4G" or "AirLive_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		

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### 5.3 Repeater Mode

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

Repeater Mode			×
0			
Repeater Settings			
Repeater SSID	Wireless2.4G	Scan	
Lock BSSID			
Encryption	WPA/WPA2PSK_TKIPAES		
Password	qj6x962k6		
BandWidth	40M		
P2P	0		
	Next		

Figure 5-3 Repeater Mode The page includes the following fields:

Object	Description		
Repeater SSID	Enter the root AP's SSID or press "Scan" to select		
Lock BSSID	Check to lock the root AP' 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		



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Press the "Scan" button to find the root AP that you need to repeat and press Choice to select the AP.

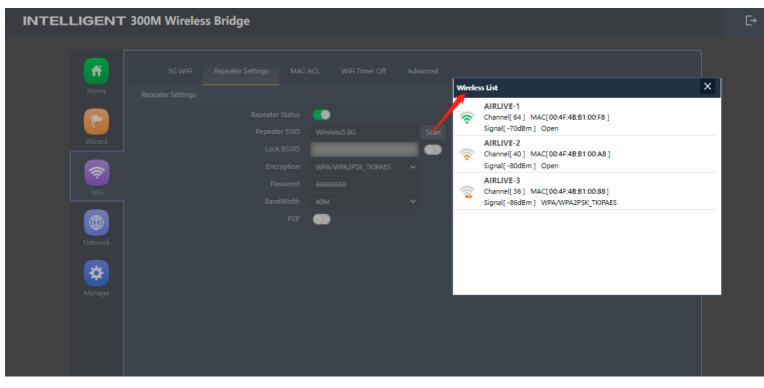


Figure 5-32 Repeater Mode -- Scan AP

Set up the repeater wireless network

AP Mode				×
1 e	)			
SSID	Airlive-AX-2.4G		_	
	Hide your SSID?			
Channel	20M 🗸			
Encrypt	Encryption			
WiFi Password	53110625			
	Back	Next		

Figure 5-20 Repeater Mode – Setting up Wi-Fi The page includes the following fields:

### User Manual of AirMax5X II

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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 "AirLive_2.4G" or "AirLive_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 LAN Settings		
IP Mode	Static IP v	
Lan IP	192.168.1.100	
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 5-33 Repeater Mode - Setting up Wi-Fi

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	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

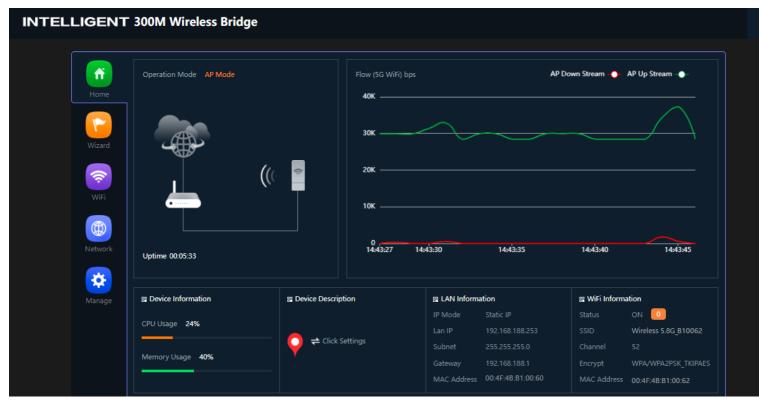
Enter the LAN IP address.



5.4 Wi-Fi

2.4G/5G Wi-Fi

5.4.1 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 <b>"AirLive_2.4G</b> " or " <b>AirLive_5G</b> "
Hide your SSID ?	Select ON (Green) or OFF (Gray) to hide wireless LAN or not
Channel	It shows the channel of the CPE. Default 2.4G channel is 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

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### 5.4.2 VAP

2G WiFi	5G WiFi	MAC ACL	WiFi Timer Off	Advanced		
	VAP 1					
_			WiFi Status	•••		
			SSID	AirLive VLAN100		
				Hide your SSID?		
			Encrypt	Encryption 🗸		
			WiFi Password	66666666		
			VLAN ID	100	Vlan-id range must be 3~4094, 0 means not enabled	
						Apply

Figure 5-23 VAP

Select VAP1~VAP3 to enable virtual AP

The page includes the following fields:

Object	Description	
Wi-Fi Status	Select <b>ON (Green)</b> or <b>OFF (Gray)</b> to enable or disable virtual wireless LAN	
SSID       It is the wireless network name. The default SSID is "AirLive_2.4G         _1" to       AirLive_2.4G_3" or "AirLive_5G_1" to         AirLive_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 5GHz is channel 36.	
Encryption	Select the wireless encryption. The default is "None"	
WMM	Enable/Disable WMM (Wi-Fi Multimedia ) function	



### MAC ACL

### 5.4.3 MAC ACL=MAC Access Control List

<b>f</b>	5G WiFi	MAC ACL	WiFi Timer Off Ad				
Home		SN	Name	MAC Address	Mark	Status	Config
				B6:58:BF:65:9F:90	Eddie	۲	٥
Wizard							
<b></b>							
WiFi	1						
Network							
*							
Manage							
	Add	Delete	Apply Disable				

### Figure 5-104 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 <b>Disable</b> .			
	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 through

Figure 5-25 ACL status



### 5.4.4 Wi-Fi Timer Off

	5G WiFi MAC ACL WiFi Timer Off Advanced
Home	Wifi Timer Off
<b>Wizard</b>	WiFi Timer Off Time Frame 17 • : 00 • - 23 • : 59 • Apply
WiFi	Арру
Network	
Manage	

### Figure 5-26 Wi-Fi Timer Off

The page includes the following fields:

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		



### Advanced

### 5.4.5 Advanced

	5G WiFi MAC ACL WiFi Timer Off	Advanced		
Home	Advanced			
	5G Mode	11AC	•	
Wizard		64	(Range 1-64)	
wizaru		OFF	*	
		-90	(-95dBm~-65dBm)	
WiFi		Max		
VVIII		OFF		
		ON	•	
Network		2346	(256-2346)	
		2347	(0-2347)	
<b>*</b>		ON	*	
Manage		OFF	•	
				Apply
0				

Figure 5-27 Advanced The page includes the following fields:

Object	Description				
2.4G/5G Mode	Select 802.11A or 802.11AN or 802.11AC in CPE				
Maximum 2.4G/5G per AP	The maximum users are <b>64</b> per radio				
2.4G/5G WLAN Partition	Enable it to isolate each connected wireless client so that they cannot				
	access mutually.				
2.4G/5G Coverage	The coverage threshold is to limit the weak signal of clients occupying				
Threshold	session. The default is -90dBm				
2.4G/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 d ata packet exceeds this value, the router will				



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	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 <b>2346</b>				
<b>RTS Threshold</b>	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 <b>2347</b>				
Dial Switch	Enable or Disable physical PtP switch				
Terminal Fast Roam	Enable or Disable 802.11k, 802.11v and 802.11r				



### 5.5 Network

### 5.5.1 LAN Settings

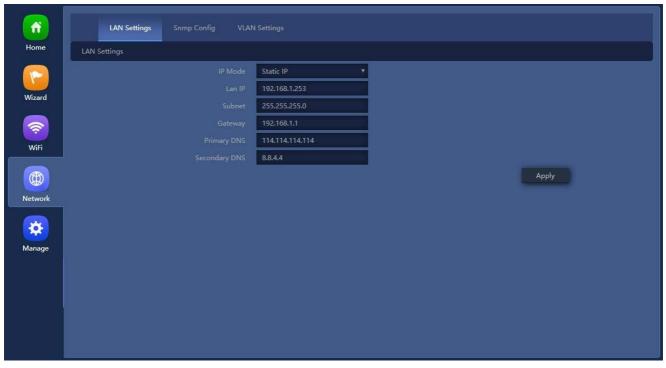


Figure 5-28 LAN Settings The page includes the following fields:

Object	Description	
IP Mode	Select "Static IP" or "DHCP Client" for setting up device IP	
LAN IP	Enter the AP static IP address	
Subnet	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	

### 5.5.2 SNMP Config

LAN Settings	Snmp Config	VLAN	Settings			
Snmp Config						
		private				
		public				
		192.168.1.100				
						Apply

Figure 5-29 SNMP Config



The page includes the following fields:

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

### 5.5.3 VLAN Settings

LAN Settings	Snmp Config VLAN	Settings		
	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	T			

### Figure 5-11 VLAN Settings

The page includes the following fields:

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

### 5.5.4 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.

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

### Figure 5-31 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 <b>1000000</b> Kbps	
Downstream	Enter limited downstream throughput, default is <b>1000000</b> Kbps	

### PPPoE (ADSL)

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

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LAN Settings Static DHCP WAN	Settings WAN Advanced Set	tings URL Mapping	
WAN Settings			
	PPPoE		5
	Please enter account.		
	Please enter password.		
	If not, please do not fill out		
	If not, please do not fill out		
	1452	(1400-1492)	
	6,8,8,8		
	2.2.2.3		
	1000M Fiber		
	1000000	Kbps	
	1000000	Kbps	
			Apply

Figure 5-32 PPPoE (ADSL) The page includes the following fields:

Object	Description	
Username	Enter the PPPoE User Name provided by your ISP	
Password	Enter the PPPoE password provided by your ISP	
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	
MTU	Maximum Transmission Unit. Default is 1452	
Band Type	Select the band type provided by your ISP	
Upstream	Enter limited upstream throughput, default is <b>1000000</b> Kbps	
Downstream	Enter limited downstream throughput, default is <b>1000000</b> Kbps	

#### DHCP

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

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		-3	86-
LAN Settings Static DHCP WAN	Settings WAN Advanced Se	ettings URL Mapping	
WAN Settings			
	DHCP		
	1492	(1400-1500)	
Set DNS Manually			
	8.8.8.8		
	4,4,4,4		
Band Type	1000M Fiber		
	1000000	Kbps	
	1000000	Кыра	
		Apply	



The page includes the following fields:

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 <b>1000000</b> Kbps
Downstream	Enter limited downstream throughput, default is <b>1000000</b> Kbps

#### 5.5.5 WAN advanced settings

LAN Settings	Static DHCP	WAN Settings	WAN Advanced Settings	URL Mapping
WAN Advanced Settings				
		Enable well	server access on WAN port	8060 (1-65535)
		MAC Clone		Scan
		🕖 Enable Pin		
		Enable IPse		
		Enable PP1		
		Enable L2T		
		Line Detec	tion Host Name 1 114.114	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.

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### 5.6 Security

Url Filter					×
Url Filter					
Status					
Rule Name	Black list				
Time Group	Any	¥	Add		
URL	www.faceback.com				
Mark					
				Save	
				Save	
Url Filter					×
<b>Url Filter</b>					×
	••••••••••••••••••••••••••••••••••••				×
Url Filter					×
Url Filter Status			Add		×
Url Filter Status Rule Name Time Group	Black list Custom	•	Add		×
Url Filter Status Rule Name Time Group	Black list Custom		Add		×
Url Filter Status Rule Name Time Group Time Range Work Date	Black list Custom 00 ▼ : 00 ▼ - 00 ▼ : 00		Add		×
Url Filter Status Rule Name Time Group Time Range Work Date	Black list Custom 00 ▼ : 00 ▼ - 00 ▼ : 00 Everyday		Add		×
Url Filter Status Rule Name Time Group Time Range Work Date URL	Black list Custom 00 ▼ : 00 ▼ - 00 ▼ : 00 Everyday		Add	Cont	×
Url Filter Status Rule Name Time Group Time Range Work Date URL	Black list Custom 00 ▼ : 00 ▼ - 00 ▼ : 00 Everyday		Add	Save	×

Figure 5-35 URL Filtering

Object	Description
Add	Press the " <b>Add</b> " button to add the rule
Delete	Press the " <b>Delete</b> " button to delete the rule

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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 Blacklist
Mark	Enter the mark string, or not

#### Enable/disable URL filter function



Figure 5-36 URL Filtering

#### 5.6.2 IP/Port Filtering

IP Filter					×
IP Filter					
Status	<b>()</b>				
Rule Name					
Time Group	Any	•	Add		
IP Group	Custom	Ŧ	Add		
IP Address				Scan	
Port Range			No e	mpty,range:1-65535	
Protocol	TCP+UDP	v			
Mark					
				Save	

Figure 5-37 IP/Port Filtering



The page includes the following fields:

Object	Description
Add	Press the "Add" button to add the rule in the Black- or Whitelist
Delete	Press the " <b>Delete</b> " button to delete the rule
Apply	Press the " <b>Apply</b> " 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 Whitelist
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 <b>Disable</b> .
	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 5-38 IP/Port Filtering



#### 5.6.3 MAC Filtering

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MAC Filter					×
MAC Filter					
Status	•••				
Rule Name					
Time Group	Any	¥	Add		
MAC Address			Scan		
Mark					
				Save	
MAC Filter					×
MAC Filter					
Status	<b>()</b>				
Rule Name					
Time Group	Custom	•	Add		
Time Range	00 • : 00 • - 00 • : 00	×			
Work Date	Everyday	×			
MAC Address			Scan		
Mark					
				Save	

Figure 5-39 MAC Filtering



The page includes the following fields:

Object	Description								
Add	Press the "Add" button to add the rule in the Black- or Whitelist								
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 Whitelist								
Mark	Enter the mark string, or not								
MAC Filtering Status	Select the rule of MAC Filtering, default is <b>Disable</b> .								
	Whitelist: Allow the devices to pass in the rule								
	Blacklist: Prohibited rules within the device through								
Add Delete	Apply Disable 🔻								

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

Figure 5-40 MAC Filtering



#### 5.6.4 Security (Port Mapping/Port Forwarding)

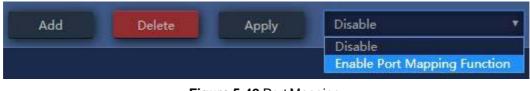
Security					×
Security					
Status					
Rule Class	User Defined	٣			
Rule Name					
Protocol	TCP+UDP	٣			
Lan IP			Scan		
External Port			No empty,ra	ange:1-65535	
Internal Port			No empty,ra	ange:1-65535	
Mark					
				Save	

Figure 5-41 Port Mapping

Object	Description
Add	Press the "Add" button to add the rule in the black or white list
Delete	Press the " <b>Delete</b> " 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



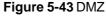
#### Enable/disable Port Mapping function





#### 5.6.5 DMZ

	Url Filter	IP Filter	MAC Filter		DMZ			
DMZ								
				192.168.1.1	50			

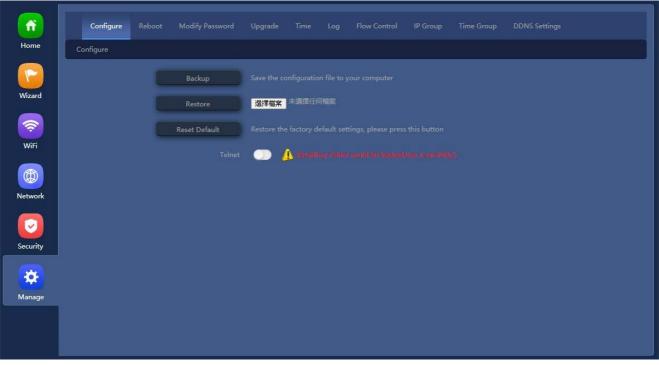


Object	Description
Enable DMZ	Select Enable DMZ Host or Disable
DMZ Host IP	Enter the DMZ LAN IP



### 5.7 Manage

#### 5.7.1 Configure



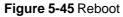
#### Figure 5-44 Configure

Object	Description
Backup	Press the " <b>Backup</b> " button to save the configuration file to your computer
Restore	Press the " <b>Restore</b> " button to reload the configuration file from your computer
Reset Default	Press the "Reset Default" button to do factory default, be careful.
Telnet	(Enabling Telnet could be hacked,Use it carefully!) Only for AirLive support team using.

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#### 5.7.2 Reboot

Configure	Reboot	Modify Password	Upgrade	Time		Flow Control		DDNS Settings
Reboot								
			Reboot					
		Timed Reboot						
		O Reboot Time	Everyday	<b>~</b> a	3:00	<b>~</b>		
		🔵 Restart Interval						
								Apply



The page includes the following fields:

Object	Description
Reboot	Press the " <b>Reboot</b> " button to restart system
Timed Reboot	Select ON (Green) or OFF (Gray) to enable or disable schedule reboot
Reboot Time	Option " <b>Reboot Time</b> " to set the date and time of the rule
Restart Interval	Option "Restart Interval" to select duty day of the rule

#### 5.7.3 Modify Password

The page you can change the password.

Configure	Reboot	Modify Password	Upgrade			Flow Control	Time Group	DDNS Settings
Modify Password	)							
		Old Password						
				_	_			
					_			
								Apply

Figure 5-46 Modify Password

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#### 5.7.4 Upgrade

	Configure	Reboot	Modify Password	Upgrade		Flow Control		DDNS Settings
Upgi	rade							
			選擇檔案 未選	譯任何檔案				
					ation 🥑			
			🚺 Note: Do n					
							U	ograde

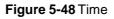
Figure 5-47 Upgrade

The page includes the following fields:

Object	Description
Selectfile	Press the " <b>Select file</b> " button to reload the firmware file from your computer <b>Be careful, choose the wrong file will crash the database</b>
Whether to resume the	Select <b>ON (Green)</b> or <b>OFF (Gray)</b> to enable or disable factory default
factory configuration	after upgrade firmware
Upgrade	Press the " <b>Upgrade</b> " button to start the process

### 5.7.5 Time

Co	onfigure	Reboot	Modify Password	Upgrade	Time	Log	Flow Control			DDNS Settings
Time						-				
				(GMT-08:	:00)Pacific	Time (US	5,Canada); Tijuana	~		
				time.winc	lows.com		~			
									A	pply



The page includes the following fields:

Object	Description
System Time	Show the system time status

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	-48-
NTP Enable	Select ON (Green) or OFF (Gray) to enable or disable NTP
Time Zone Select	Select the time zone for GMT
Manual IP settings	Select <b>ON (Green)</b> or <b>OFF (Gray)</b> to enable or disable manual IP function
NTP Server	Select the NTP server

### 5.7.6 Log

Configure	Reboot	Modify Password	Upgrade	Log	Flow Control		DDNS Settings
Log							
			ON	_	~		
			0.0.0				
Log							

### Figure 5-49 Log

Object	Description
Log	Select ON (Green) or OFF (Gray) to enable or disable
Remote Log Service	Select <b>ON (Green)</b> or <b>OFF (Gray)</b> to enable or disable remote log function and enter the log server IP address
Export	Press the "Export" button to export the log.bin file
Delete	Press the " <b>Delete</b> " button to clear the log
Refresh	Press the " <b>Refresh</b> " button to refresh the log
Apply	Press the " <b>Apply</b> " button to save the configuration



#### 5.7.7 Flow Control

	Configure	Reboot Modify Pas	ssword Upgrade	Time Log <b>Flo</b>	w Control IP Group		DDNS Settings		
	SN	Address Name	Time Group	Limited Mode	Up	Down	Status	Mark	Config
									۲
									۲
Ac		Delete Apply	Enable QoS	~					

#### Figure 5-50 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	

Figure 5-51 Enable or Disable QoS Rule

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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 5-52 Add rule of flow control(Speed Limit)

The page includes the following fields:

airlive

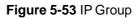
Object	Description
Status	Select enable or disable flow control rule
IP Group	Select custom or Add an IP group
IP Address	Enter an IP address range or use scan to select
Time Group	Select any or custom or Add a Time group
Limited Mode	Select limited mode for shared limited bandwidth or exclusive limited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

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#### 5.7.8 IP Group

Configure	Reboot	Modify Password	Upgrade	Time	Log	Flow Control	IP Group	Time Group	DDNS Settings	
	SN	Group	Name			IP Range			Mark	Config



Object	Description
Add	Press the "Add" button to add IP group in list
Delete	Press the " <b>Delete</b> " button to delete the group

×
Scan
Save

Figure 5-54 Add IP Group



The page includes the following fields:

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

#### 5.7.9 Time Group

	Configure	Reboot Modify Passw	ord Upgrade	og Flow Control		Time Group	DDNS Settings		
	SN	Time Group	Time Range		Work Date			Mark	Config
									Ø
-	Add	Delete							

#### Figure 5-55 Time Group

Object	Description
Add	Press the "Add" button to add time group in list
Delete	Press the " <b>Delete</b> " button to delete the group

## oirlive®

			-53-
Time Group			×
Time Group			
Time Group			
Time Range	00 🗸 : 00 🗸 - 00 🗸 :	00 🗸	
Work Date	Everyday	~	
Mark			
			Save

Figure 5-56 Add Time Group

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

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## Chapter 6. Quick Connection to a Wireless Network

In the following sections, the default SSID of the AirMax5X II is configured to "default".

### 6.1 Windows XP (Wireless Zero Configuration)

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



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

<sup>(1</sup> 1 <sup>0)</sup> Wireless Network Connect	ion	$\mathbf{X}$
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	((p))	^
Related Tasks	((p)) <b>•••</b>	≡
<ul> <li>Learn about wireless networking</li> <li>Change the order of preferred networks</li> </ul>	Image: Security-enabled wireless network       Image: Security-enabled wireless network	
Change advanced settings	(( )) default	
	To connect to this network, click Connect. You might need to enter additional information.	
	(( <b>ရ</b> ))	~

Figure 6-2 Choosing a Wireless Network



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#### 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 Con	inection	×
	uires a network key (also called a WEP key or WPA key). ent unknown intruders from connecting to this network. ck Connect.	
Network <u>k</u> ey:	•••••	
Confirm network key:	•••••	
	Connect	

Figure 6-3 Entering the Network Key

#### Step 5: Check if "Connected" is displayed

(1)) Wireless Network Connec	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 rai information.	nge or to get more
Set up a wireless network for a home or small office	((p)) default	Connected 👷 📤
	📕 😚 Security-enabled wireless network (WPA)	
Related Tasks	(( <b>Q</b> ))	
Learn about wireless	🛛 💡 🖁 Security-enabled wireless network (WPA)	•B008•
networking	((Q))	
A Change the order of preferred networks	🖡 👸 Security-enabled wireless network	
🏈 Change advanced	(( <b>Q</b> ))	
settings	🖡 👸 Security-enabled wireless network	
	(( <b>Q</b> ))	
	Unsecured wireless network	
	(( <b>Q</b> ))	
	Unsecured wireless network	• 100 🗸 🗸
		Connect
		Connoct

Figure 6-4 Choosing a Wireless Network -- Connected



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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.

## 6.2 Windows 7 (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.

#### 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



Figure 6-6 WLAN AutoConfig



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歐
Note

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
- (3) Click the [OK] button

Connect to a Netw	ork
Type the networ	k security key
Security key:	
	Hide characters
9	You can also connect by pushing the button on the router.
	OK Cancel

Figure 6-7 Typing the Network Key

X
Cancel

Figure 6-8 Connecting to a Network

#### Step 5: Check if "Connected" is displayed



Figure 6-9 Connected to a Network



### 6.3 Mac OS X 10.x

In the following sections, the default SSID of the AirMax5X II is configured to "default".

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

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
- (2) Click the [OK] button

-	6	0	-

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.

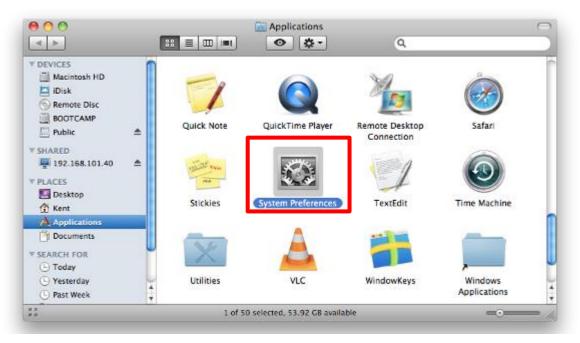
If "Yes", then there will be a "check" symbol in front of the SSID.

	Ð	* 🛜	•		ŀ Ø	Q
AirPort: On Turn AirPort Off						
√default		6 1		100		
The second se		((:-				
		9 🛜				
(10)-000(m)(a)		((+				
					1.2	
a share at						
and the second						
post, resolution						
THE PARTY OF		<b>₽</b> 🛜				
Join Other Network						
Create Network Open Network Preferences	5					
	1000					

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

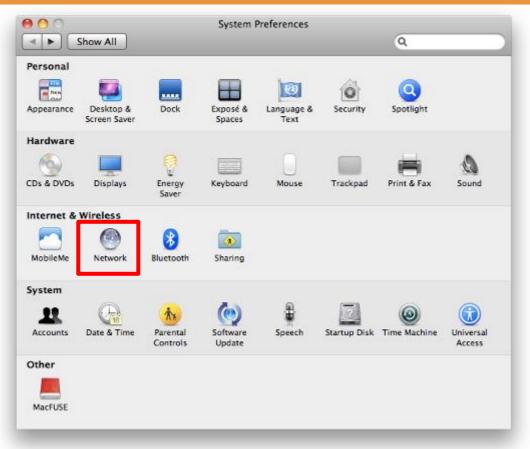


Figure 6-15 System Preferences -- Network



#### 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 "Not network selected".

0	Network	
Show All		٩
Locat	ion: Automatic	•
USB Ethernet	Status: On	Turn AirPort Off
802.11dapter	AirPort is turn a network.	ned on but is not connected to
AirPort	Network Name 🗸 No networ	rk selected
Home VPN		€ (;;
	default	<u> </u>
	100 mm	
	1	
	in terms	€ () () () () () () () () () ()
	Join Other Create Net	Network twork
- 0-	Show AirPort status in menu b	par Advanced)

Figure 6-16 Selecting the Wireless Network

### 6.4 iPhone/iPod Touch/iPad

In the following sections, the default SSID of the AirMax5X II is configured to "default".

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



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".

Pad	10:35 AM	100
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 >
Mail, Contacts, Calendars	Spotlight Search	>
Safari		

Figure 6-18 Wi-Fi Setting

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#### User Manual of AirMax5X II

Pad	10:35 AM	@ 100%
Settings	Coveral Network	
Airplane Mode     OFF     WI-Fi     Not Connected	VPN	Not Connected >
Notifications On	Wi-Fi	Not Connected >
Carrier		
🔣 Cellular Data		
🙀 Brightness & Wallpaper		
Picture Frame		
General		
🧧 Mail, Contacts, Calendars		
Magazari 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	6 76%
Settings	Network Wi-Fi Networks	
Airplane Mode OFF		
Wi-Fi Not Connected	Wi-Fi	ON
Notifications On	Choose a Network	
Location Services On	default	ê 🗢 📀
Cellular Data	Other	>
🙀 Brightness & Wallpaper	Ask to Join Networks	ON
Picture Frame	Known networks will be joined automaticall	
🚳 General	known networks are available, you will be before joining a new network.	askeu

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
- (3) Tap the [Join] button

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Pad 🜩		11:20 PI	1			30	76%
Settings		Betweek	Wi-	Fi Netw	orks		
Airplane Mode	OFF						
WI-FI	CA8-4	Wi-Fi				ON.	
Notifications	Qn	Choose	a Network				
Location	31	V CAB-4	Transformer in			89	0
Cellular Cent		er the password Enter Pass					۲
Brightne						- 10	>
Picture   Passw	ord						
						2NR	
						a ll m	
Mail, Co							
Safari							
iPod							
Video							
Photos							
Notes							
Store Store							
Appr							
1 2 3	4	5 6	7	8	9	0	G
- / :	;		\$	&	@	Γ	Join
#+= undo		, ?	!	•			#+=
			-	-		_	-

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.

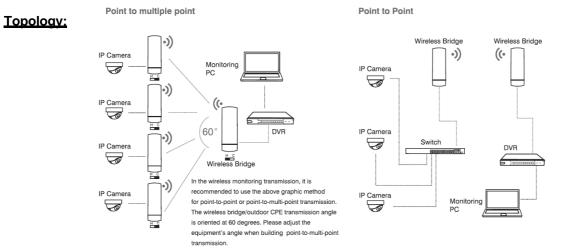
oir live®

iPad	11:25 PM	@ 75%
Settings	Network Wi-Fi Networ	ks
Airplane Mode OFF	Constant	
🛜 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 a known networks are available,	
Seneral	before joining a new n	

Figure 6-22 iPhone -- Connected to the Network

## Appendix A: FAQs

### Q1: How to set up the AP Client Connection



Step1. 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 "192.168.1.101", and Site-2 is "192.168.1.200".

etworking	General	
Connect using:		automatically if your network supports ed to ask your network administrator
Realtek PCIe FE Family Controller	for the appropriate IP settings.	cu to day your recorder duministrator
Configure	🕑 Obtain an IP address autom	atically
This connection uses the following items:	O Use the following IP address	8
Client for Microsoft Networks	IP address:	192.168.1.101
AVG network filter driver     Gos Packet Scheduler	Subnet mask:	255 . 255 . 255 . 0
Read Printer Sharing for Microsoft Networks	Default gateway:	
Link-Layer Topology Discovery Mapper I/O Driver	Obtain DNS server address	automatically
Link-Layer Topology Discovery Responder	Use the following DNS serve	r addresses:
Install Uninstall Properties	Preferred DNS server:	40 A 34
Description	Alternate DNS server:	10 A 34
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.	🕅 Validate settings upon exit	Advanced
		OK Cance

Step2. In AP-2, change the PtP switch to slave, the default IP is 192.168.1.100.

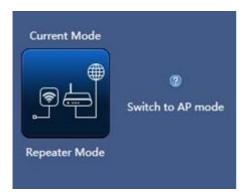


Step 3. In AP-1, go to "Wizard" to configure it to AP Mode. In AP-2, configure it to Repeater Mode.

AP-1



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.

Wirele	ss List	×
((;	WDS-3 Channel[ 100 ] MAC[ C2:F7:E0:55:41:7C ] Signal[ -69dBm ] WEP	•
<b>R</b>	Wireless 5.8G_006544 Channel[ 36 ] Signal[ -70dBm ] WPA/WPA2PSK_AES	1

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INTELLIGE	NT 300M Wireless Bridge		÷
	5G WiFi Repeater Settings MAC ACL WiFi Timer Off Advanced		
Home			
	Repeater Status Repeater SSID Wireless5.8G Scan		
Wizard			
	Encryption WPA/WPA2PSK_TKIPAES V		
WiFi	Password 66666666 BandWidth 40M		
	P2P		
Netwo	rk	Apply	
*			
Manag			

Step 5. Click "Next" to finish the setting. ( The default Password is "12345678" )

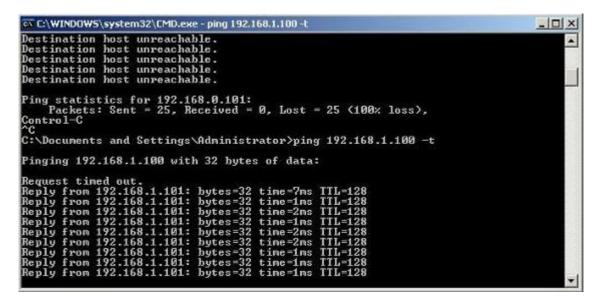
Step 6. Click "Device Status" to check connection status.

INTELLIGENT	300M Wireless Bridge							E
Home Home Wizard Wizard WiFi WiFi Kitwork	Operation Mode AP Mode		0	43:30	14:43:35	AP Down Stream 14:43:40	AP Up Stream	
Manage	Device Information	B Device Descript	ion	🖀 LAN Informa	ation	🛱 WiFi Inform	ation	
Wahaye	CPU Usage 24% Memory Usage 40%	Ç ≠ Click Si		IP Mode Lan IP Subnet Gateway	Static IP 192.168.188.253 255.255.255.0 192.168.188.1 00:4F:4B:B1:00:60	Status SSID Channel Encrypt	ON 0 Wireless 5.8G_B10062 52 WPA/WPA2PSK_TKIPAES 00:4F:4B:B1:00:62	



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 192.168.1.101.



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

General Alternate Configuration You can get IP settings assigned aut this capability. Otherwise, you need for the appropriate IP settings.			
		ing chings	k administrator
Obtain an IP address automatic	ally		
Use the following IP address:			
IP address:			
Subnet mask:	( in the second s	14	p.
Default gateway:	(	19	-
Obtain DNS server address aut	omatically		
💮 Use the following DNS server a	ddresses:		
Preferred DNS server:			
Albernate DNS server:			10
Validate settings upon exit			Advanced
- L		OK	Cance
	IP address; Subnet mask: Default gateway: Obtain DNS server address aut O Use the following DNS server a Preferred DNS server; Alternate DNS server;	IP address; Subnet mask: Default gateway: Obtain DNS server address automatically Obtain DNS server addresses: Preferred DNS server: Alternate DNS server:	IP address: Subnet mask: Default gateway: Obtain DNS server address automatically Obtain DNS server addresses: Preferred DNS server: Alternate DNS server: +

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

wireless connection.

ST C:\Windows\system32\cmd.exe - ping 192.168.1.1 -t	
Reply from 192.168.1.1: bytes=32 time <ins ttl="64&lt;br">Reply from 192.168.1.1: bytes=32 time<ins ttl="64&lt;/th"><th>*</th></ins></ins></ins></ins></ins></ins></ins></ins></ins></ins></ins></ins></ins></ins></ins>	*
C/Windows/system32/cmd.exe - ping 8.8.8.9 -t	
Reply from 8.8.8.8: bytes=32 time=37ns TTL=53 Reply from 8.8.8.8: bytes=32 time=38ns TTL=53 Reply from 8.8.8.8: bytes=32 time=36ns TTL=53 Reply from 8.8.8.8: bytes=32 time=36ns TTL=53 Reply from 8.8.8.8: bytes=32 time=37ns TTL=53 Reply from 8.8.8.8: bytes=32 time=38ns TTL=53 Reply from 8.8.8.8: bytes=32 time=37ns TTL=53	

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.
- 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.