



Dahua 5G Wireless Equipment Quick Configuration Manual

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Important Safeguards and Warnings

Please read the following safeguards and warnings carefully before using the product in order to avoid damages and losses.

Note:

Do not expose the device to lampblack, steam or dust. Otherwise it may cause fire or electric shock.

Do not install the device at position exposed to sunlight or in high temperature.

Temperature rise in device may cause fire.

Do not expose the device to humid environment. Otherwise it may cause fire.

The device must be installed on solid and flat surface in order to guarantee safety under load and earthquake. Otherwise, it may cause device to fall off or turnover.

Do not place the device on carpet or quilt.

Do not block air vent of the device or ventilation around the device. Otherwise, temperature in device will rise and may cause fire.

Do not place any object on the device.

Do not disassemble the device without professional instruction.

Warning:

Please use battery properly to avoid fire, explosion and other dangers.

Please replace used battery with battery of the same type.

Do not use power line other than the one specified. Please use it properly. Otherwise, it may cause fire or electric shock.

Special Announcement

This manual is for reference only.

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If there is any uncertainty or controversy, please refer to the final explanation of us.

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Before Start

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Update and revision

- This user's manual for reference only. Slight difference may be found in the user interface.
- All the designs and software here are subject to change without prior written notice.
- If there is any uncertainty or controversy, please refer to the final explanation of us.
- Please visit our website or contact your local retailer for more information.

1 Line Connection

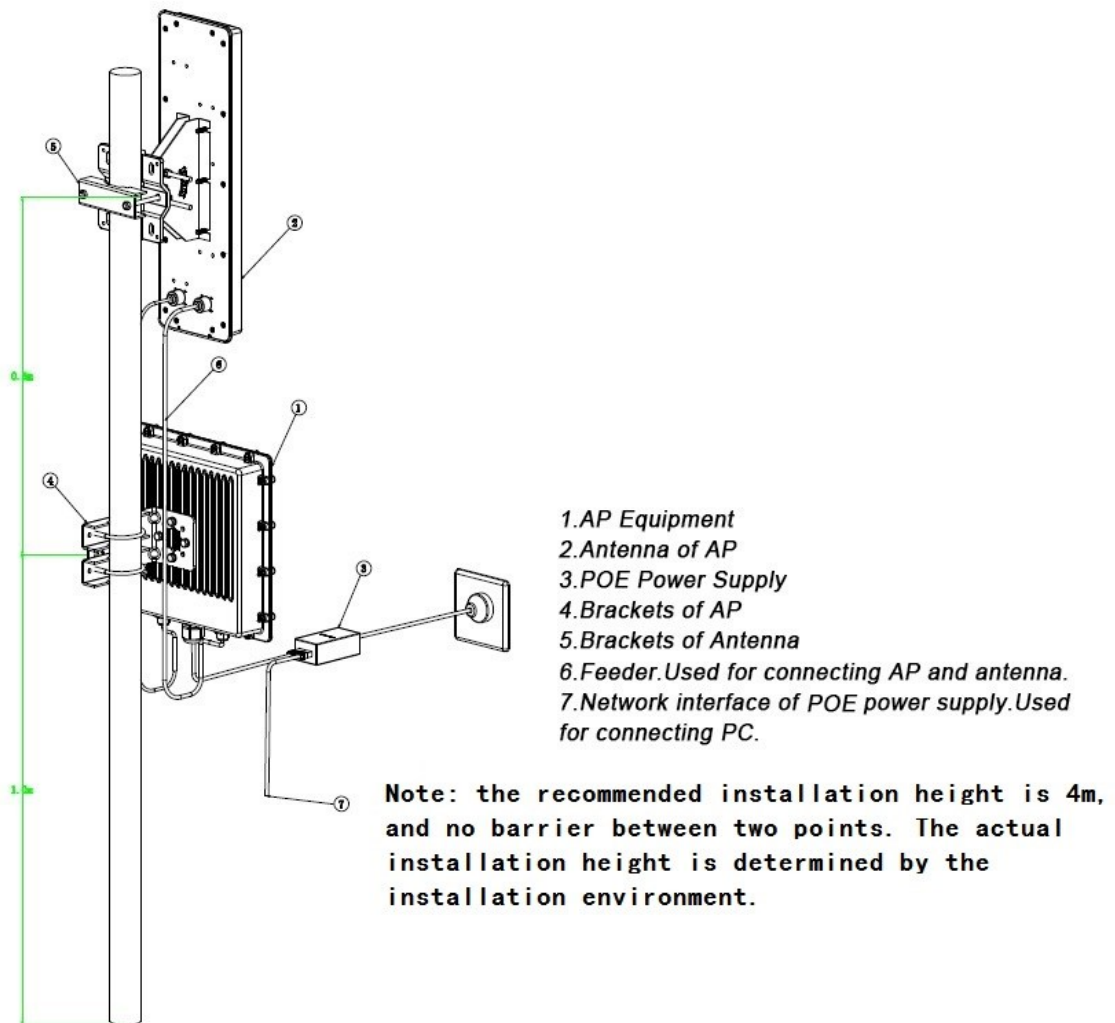


Figure 1-1

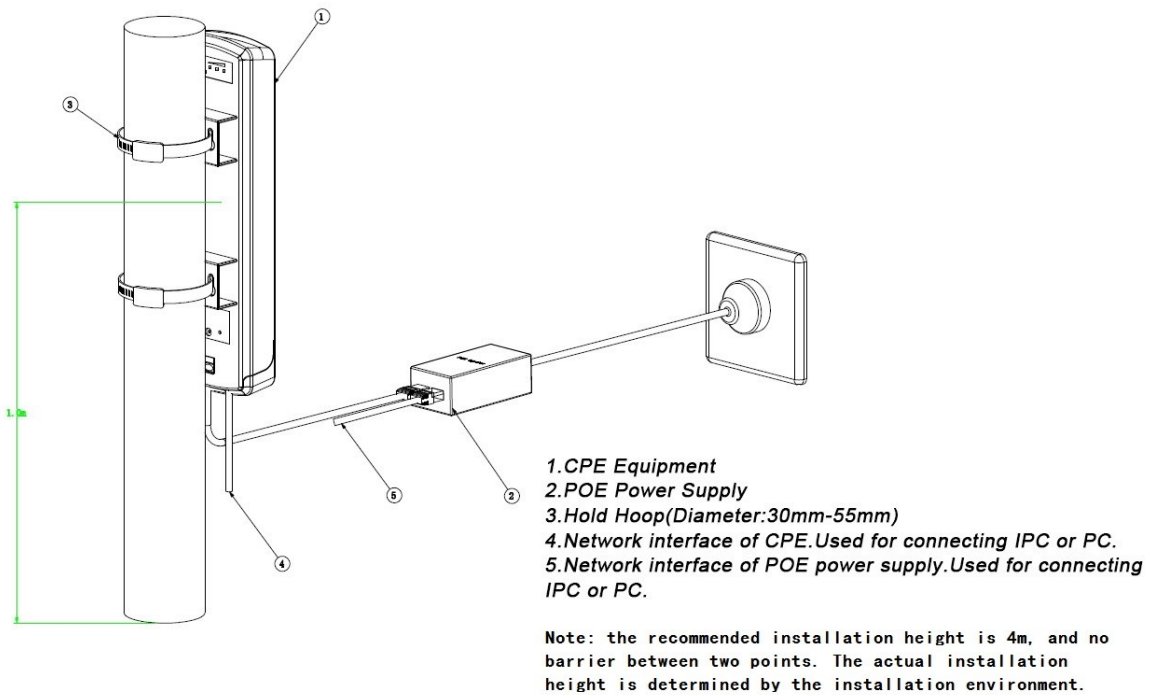


Figure 1-2

Please refer to the following sheet for detailed information.

Sheet 1-1

Device Model	Port	Port Name	Connection and Function
DH-PFM881	Two RJ45 ports	POE	Provide DH-PFM881 with 24V power supply and data transmission by connecting twisted-pair with POE port.
		LAN2	Can be used to connect IP camera just like "LAN" port, can choose either LAN port to do the device debugging.
DH-PFM880	One RJ45 port	None	Provide DH-PFM880 with 48V power and data transmission by connecting network cable with "POE" port on POE power. The "LAN"port on POE power can be connected to switch or other devices, and used as debugging port as well.

2 Typical Working Mode

The typical working modes for DH-PFM88X series are: point-to-point access mode, point-to-multipoint access mode and wireless coverage blind angle adjustment mode.

- Point-to-point access mode

Two DH-PFM88X devices, one is used as an access point, the other as a client, this mode can reach max system throughput rate, which can be applied to point-to-point scene.

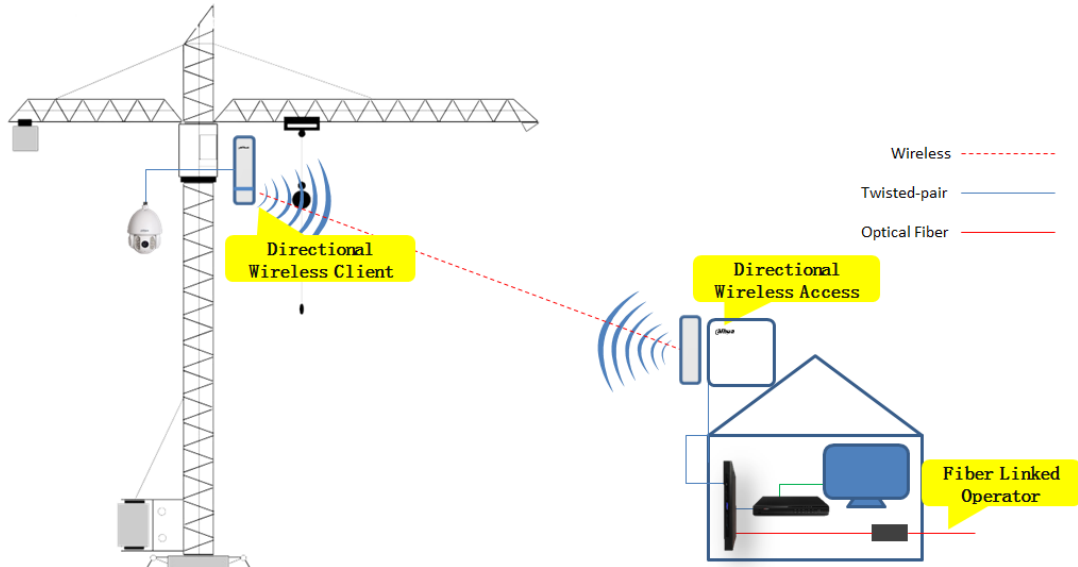


Figure 2-1

- Point-to- multipoint access mode

One DH-PFM880 device is used as access point while several other DH-PFM881 devices used as client, this mode can support several data links, but total system throughput rate is lower than point-to-point mode, it can be applied to one-to-many centralized wireless coverage scene.

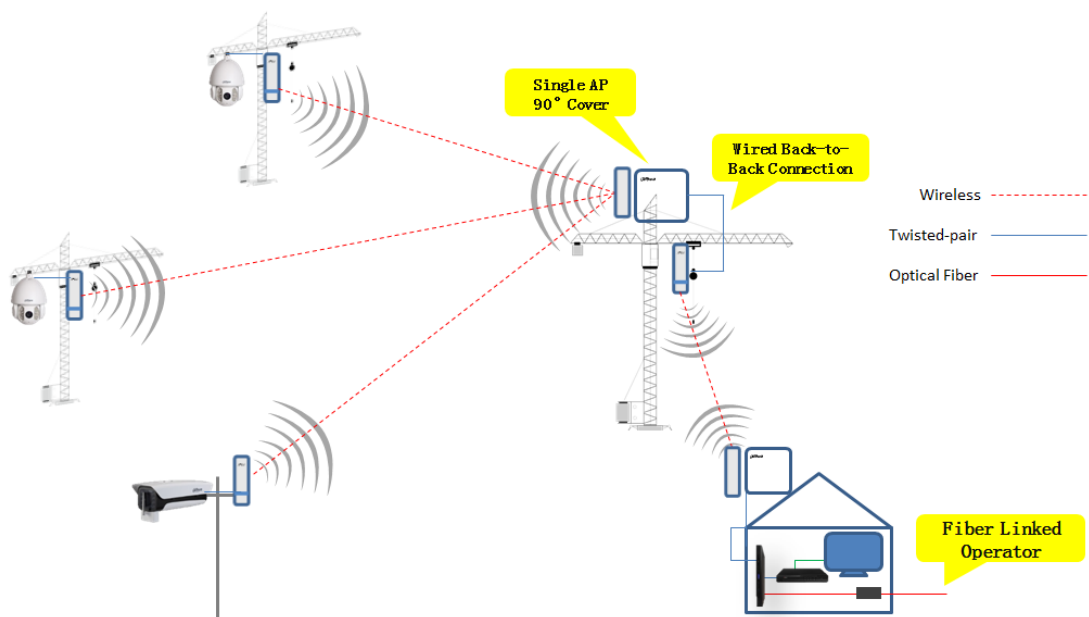


Figure 2-2

- Wireless coverage blind angle adjustment mode
It can realize different angle adjustment by back-to-back wired connection between two devices, which can be applied to the scene where individual point can't be directly covered by central point. It is generally recommended to use double CPE to realize the function.

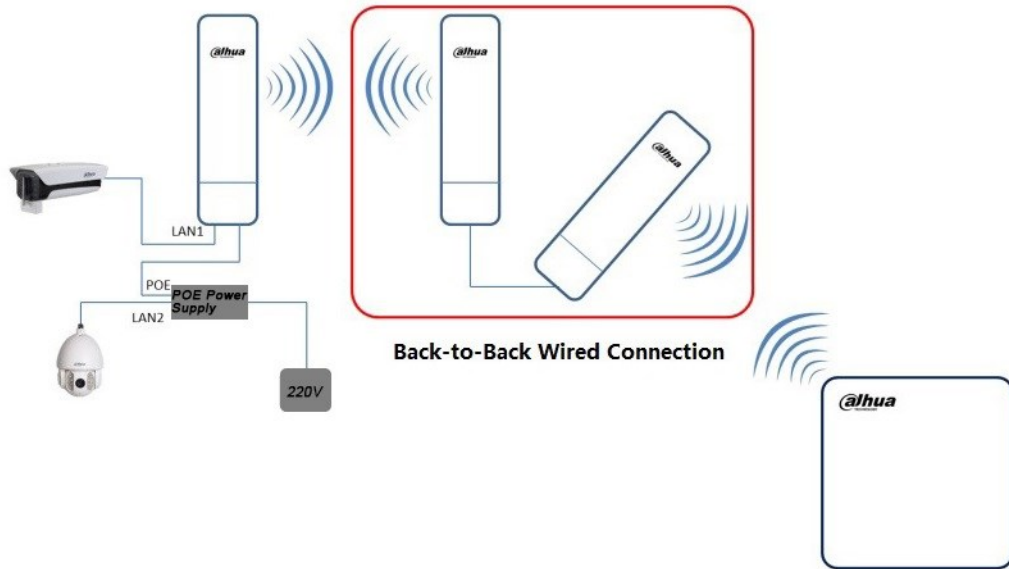


Figure 2-3

Attention:

When the server is deployed with many APs, make sure different AP “access point” mode device should be configured with different “frequency/channel” to avoid interference between devices.

3 Device Configuration

Precondition

Refer to Figure 1-1 and Figure 1-2, connect equipment with configuration host and power on.

Operation Steps

Step 1 Configure host IP address with “192.168.1.x” (x can't be 36) (For example 192.168.1.180)

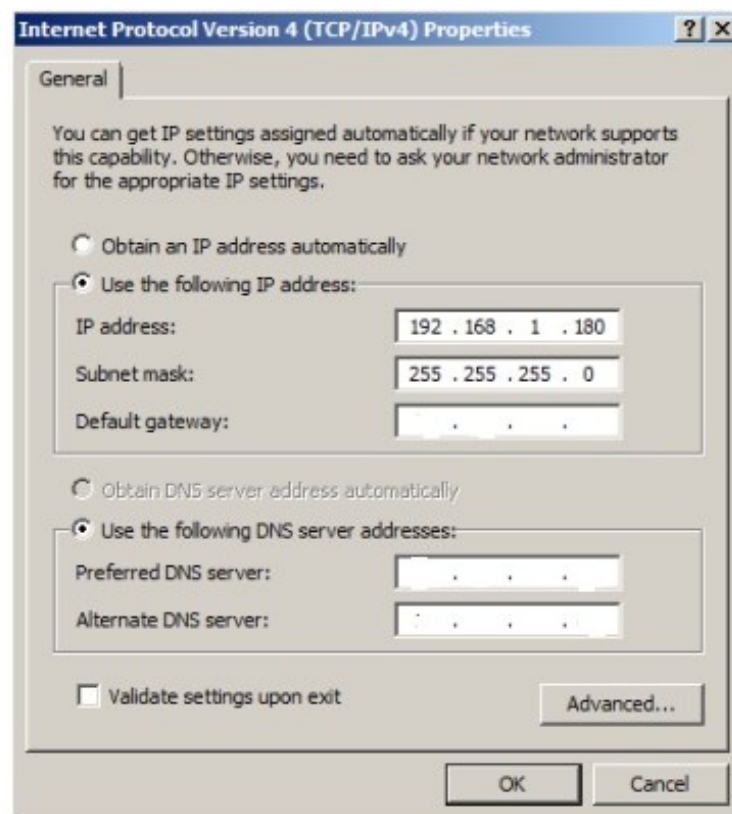


Figure 3-1

Step 2 Enter the default IP address **192.168.1.36** of DH-PFM88X equipment in the browser, the system will display login page.

Username: admin
Password:
Confirm Reset

Figure 3-2

Step 3 Enter user name and password (the default of both user name and password is admin), click “login”. The system displays the page of status display, which includes the equipment’s working condition, current setting, software version and some other basic information.

Wireless Video Transmission BaseStation

Logout

TDMA

Status

Status

Device Name: DH-PFM880

WiFi MAC: 9C:B7:93:A0:03:2F

Firmware Version: TB-v2.0.4.1563.9344_DH-PFM880F-CH

NetWork Mode: Bridge

Channel Mode: 11 a/n

WAN IP:

WAN MAC: 9C:B7:93:9E:03:2F

Connection: 0

SSID: DaHua

Frequency / Channel: 5745 MHz (149)

Channel Width: 40+ MHz

Wireless Mode: Access Point (TDMA)

Security Mode: WPA

Distance: 20 km

Noise Floor: -94 dBm

Time: 2015-08-20 17:47:43 UTC

Monitor

Throughput | Routes Table | Bridge Table | ARP Table | Station Information | Syslog

100
90
80
70
60
50
40
30
20
10
0

0bps 0bps

RX: 0bps
TX: 0bps

Figure 3-3

Step 4 Click “setup wizard” on the left, which can help users to configure the equipment very quickly, such as network configuration, wireless mode and etc. You can also enter the corresponding configuration page by clicking the menu on the left side of the page. It will display basic network parameter configuration. The equipment default configuration is “Bridge Mode”, the IP address of LAN port is “192.168.1.36”, so the users are strongly advised to modify the IP address as soon as they login the equipment.

Note:

The equipment IP is unique within the same LAN, so pay attention to modify the IP address according to the design and make sure IP won’t conflict within the same

network.

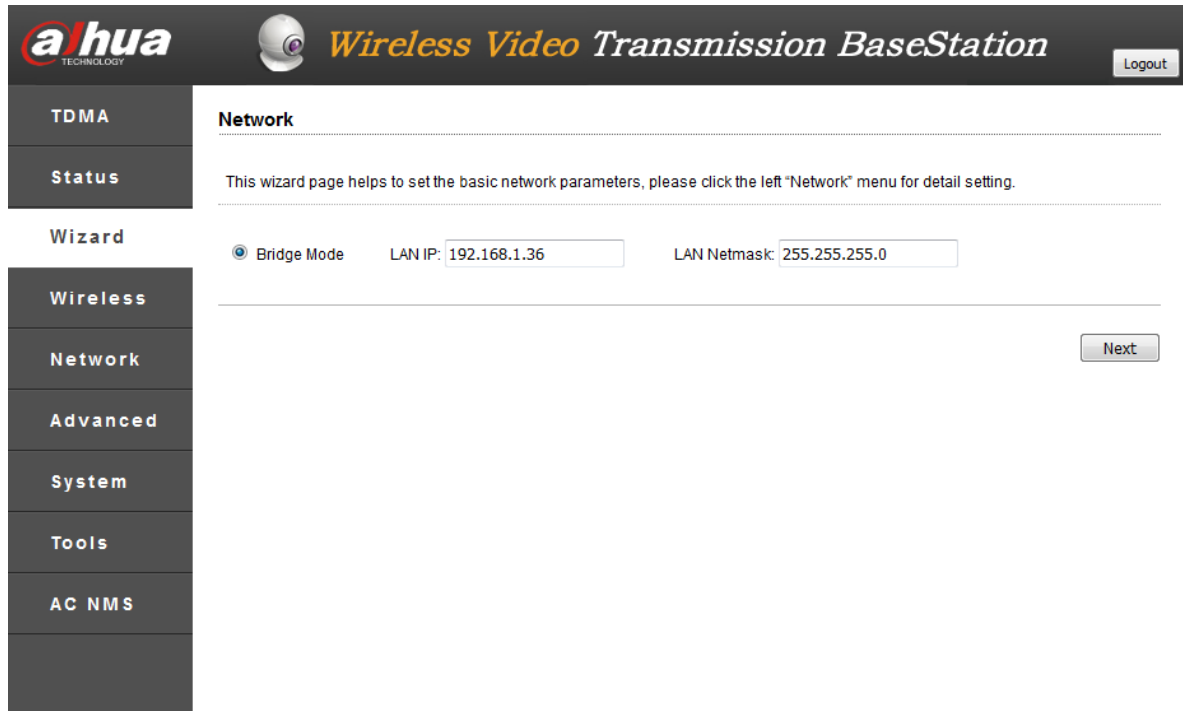


Figure 3-4

Step 5 Click "Next" and it will display basic wireless parameter configuration and wireless encryption options. Two most commonly used wireless modes of DH-PFM88X equipment are "Client" and "Access Point". Within the same LAN, the server should be in accordance with wireless encryption option, network name option and password option demand of client wireless device.

Note:

Under "Station" mode, the equipment which connects camera end is generally set as client mode.

Under "Access Point" mode, server DH-PFM880 equipment is generally set as access point mode and connected to monitoring room.

When there are several access points in the same area, pay attention to setting different frequency for different DH-PFM880.

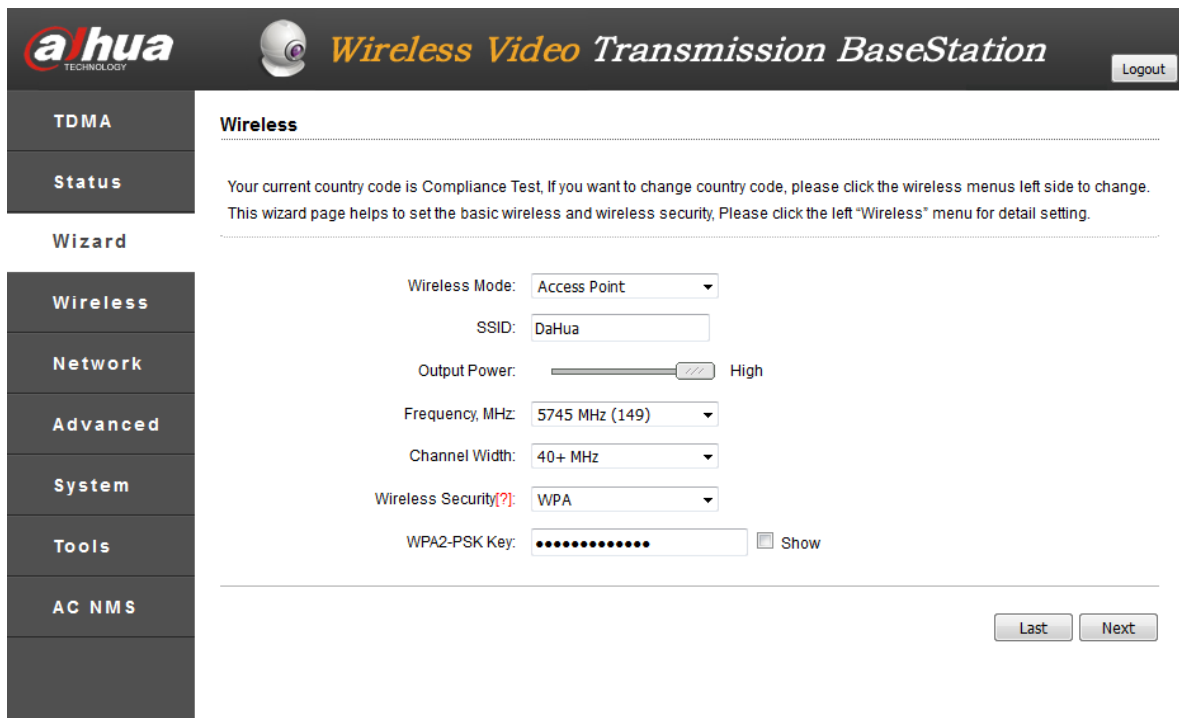


Figure 3-5

Step 6 Click “Next” and it will display “Wizard-Finish” page.

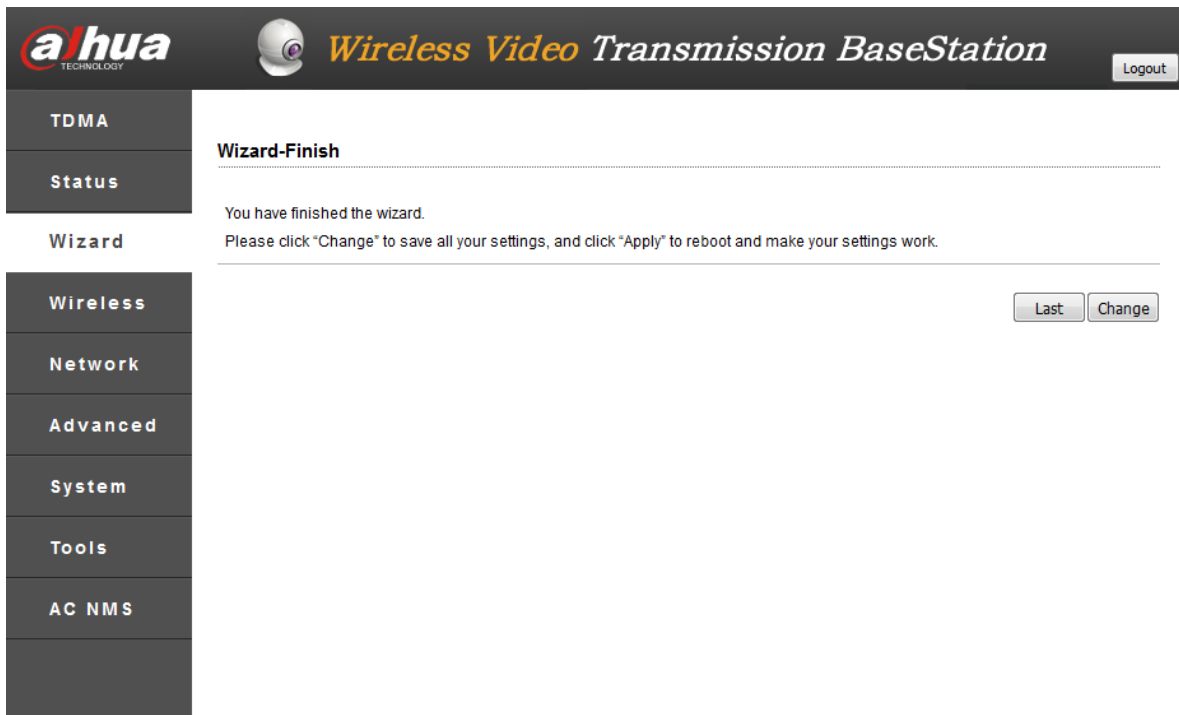


Figure 3-6

Step 7 Click “Change” button to save all the settings, then click “Apply” button to make your settings valid. You can also click “Last” to modify previous configuration.

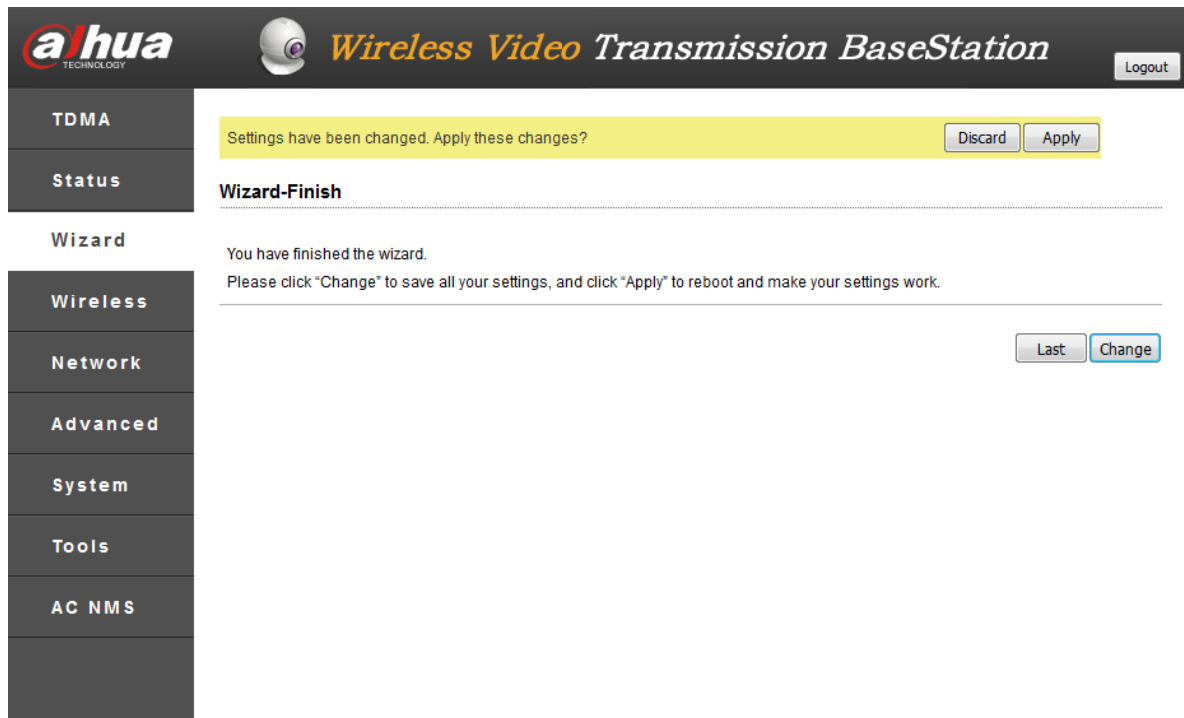


Figure 3-7

Step 8 When Wireless Mode is Station, Client's frequency limit function can increase connection speed. Click "Enable".

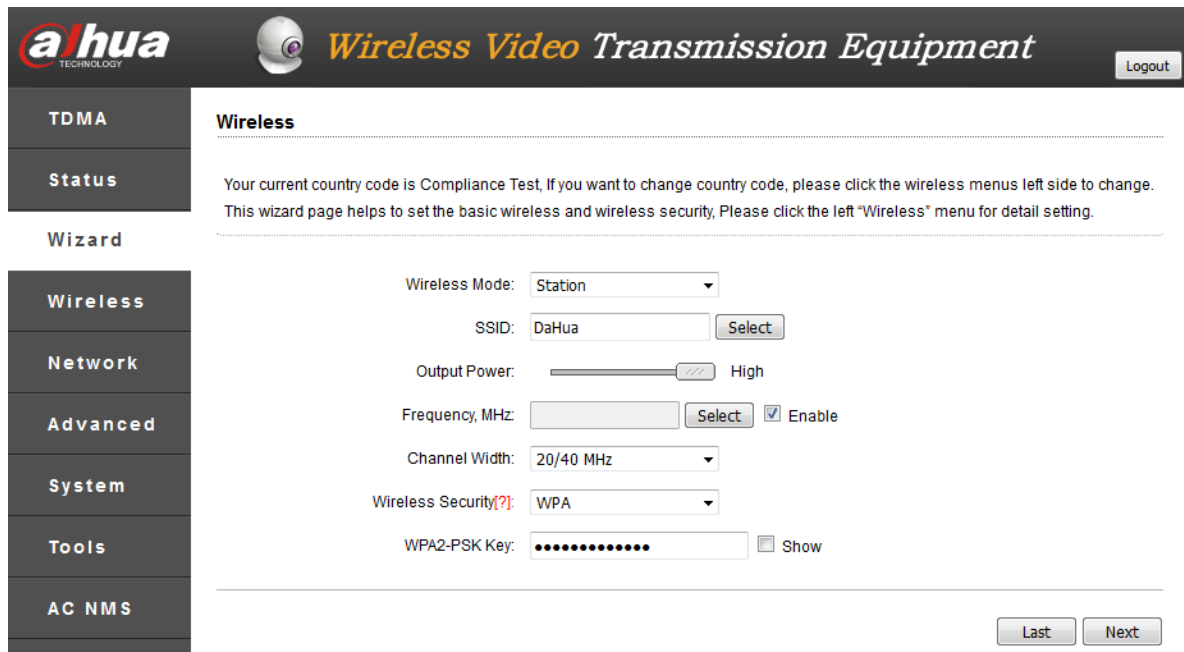


Figure 3-8

Step 9 Select the following frequency. The range of the frequency is determined by the Country code. Select the required frequency in the last step, click select.

Frequency Scan List

<input type="checkbox"/> Select All			
<input checked="" type="checkbox"/> 5265 MHz	<input checked="" type="checkbox"/> 5270 MHz	<input checked="" type="checkbox"/> 5275 MHz	<input checked="" type="checkbox"/> 5280 MHz
<input type="checkbox"/> 5285 MHz	<input type="checkbox"/> 5290 MHz	<input type="checkbox"/> 5295 MHz	<input type="checkbox"/> 5300 MHz
<input type="checkbox"/> 5305 MHz	<input type="checkbox"/> 5310 MHz	<input type="checkbox"/> 5315 MHz	<input type="checkbox"/> 5320 MHz
<input type="checkbox"/> 5500 MHz	<input type="checkbox"/> 5505 MHz	<input type="checkbox"/> 5510 MHz	<input type="checkbox"/> 5515 MHz
<input type="checkbox"/> 5520 MHz	<input type="checkbox"/> 5525 MHz	<input type="checkbox"/> 5530 MHz	<input type="checkbox"/> 5535 MHz
<input type="checkbox"/> 5540 MHz	<input type="checkbox"/> 5545 MHz	<input type="checkbox"/> 5550 MHz	<input type="checkbox"/> 5555 MHz
<input type="checkbox"/> 5560 MHz	<input type="checkbox"/> 5565 MHz	<input type="checkbox"/> 5570 MHz	<input type="checkbox"/> 5575 MHz
<input type="checkbox"/> 5580 MHz	<input type="checkbox"/> 5660 MHz	<input type="checkbox"/> 5665 MHz	<input type="checkbox"/> 5670 MHz
<input type="checkbox"/> 5675 MHz	<input type="checkbox"/> 5680 MHz	<input type="checkbox"/> 5685 MHz	<input type="checkbox"/> 5690 MHz
<input type="checkbox"/> 5695 MHz	<input type="checkbox"/> 5700 MHz	<input type="checkbox"/> 5735 MHz	<input type="checkbox"/> 5740 MHz
<input type="checkbox"/> 5745 MHz	<input type="checkbox"/> 5750 MHz	<input type="checkbox"/> 5755 MHz	<input type="checkbox"/> 5760 MHz
<input type="checkbox"/> 5765 MHz	<input type="checkbox"/> 5770 MHz	<input type="checkbox"/> 5775 MHz	<input type="checkbox"/> 5780 MHz
<input type="checkbox"/> 5785 MHz	<input type="checkbox"/> 5790 MHz	<input type="checkbox"/> 5795 MHz	<input type="checkbox"/> 5800 MHz
<input type="checkbox"/> 5805 MHz	<input type="checkbox"/> 5810 MHz	<input type="checkbox"/> 5815 MHz	<input type="checkbox"/> 5820 MHz
<input type="checkbox"/> 5825 MHz	<input type="checkbox"/> 5830 MHz	<input type="checkbox"/> 5835 MHz	<input type="checkbox"/> 5840 MHz

Figure 3-9

Step 10 Click "Next".

The screenshot shows the Dahua configuration wizard for wireless settings. The interface includes a sidebar with navigation options: TDMA, Status, Wizard, Wireless (selected), Network, Advanced, System, Tools, and AC NMS. The main content area is titled "Wireless" and contains the following configuration fields:

- Wireless Mode: Station
- SSID: DaHua
- Output Power: High
- Frequency, MHz: 5265,5270,5275,5280 (checked) Enable
- Channel Width: 20/40 MHz
- Wireless Security: WPA
- WPA2-PSK Key: [Masked]

Buttons for "Last" and "Next" are visible at the bottom right of the configuration area.

Figure 3-10

Step 11 Click “Change” button to save all the settings, then click “Apply” button to make your settings valid. You can also click “Last” to modify previous configuration.

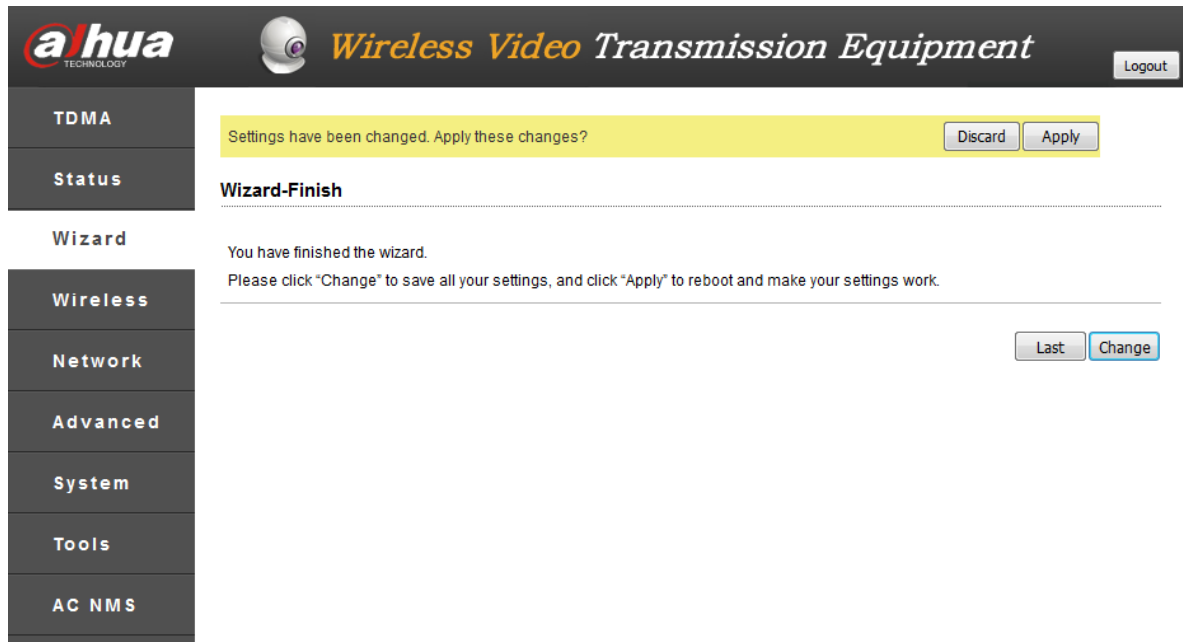


Figure 3-11

Appendix 1 Technical Specifications

Type	Item	DH-PFM880	DH-PFM881
Wireless Technology	Standard	IEEE802.11 a/n	
	Working Frequency	USA(FCC): 5.725~5.825 GHz ISM band	
		ETSI: 5.15~5.35 GHz; 5470~5725 MHz ISM band	
	Modulation Mode	802.11 a/n: OFDM	
	Antenna	External antenna: gain	Built-in antenna: gain 15dBi
	Output Power	30dBm(MAX)	27dBm(MAX)
	Receiving Sensitivity	-72dBm@65Mbps, -94dBm@6Mbps	-72dBm@65Mbps, -94dBm@6Mbps
	Optimal Transmission Distance	0-3KM	0-5KM
	Wireless Authentication	FCC,CE	
	Wireless Direction Angle	Horizontal 90° ,vertical 9°	Horizontal 40° ,vertical 15°
	Transmission Rate	11n: 300/270/216/162/108/54Mbps	
150/135/108/81/54/27Mbps			
135/121.5/108/81/54/40.5/27/13.5Mbps			
130/117/104/78/52/39/26/13Mbps			
65/58.5/52/39/26/19.5/13/6.5Mbps			
11a: 54/48/36/24/18/12/9/6Mbps(self-adaption)			
Hardware	Power	48V PoE	24V PoE
	Power Consumption	MAX 15W	MAX 8W
	Port	1*POE RJ45	1*POE RJ45、1*LAN RJ45
	Indicator Light	N/A	Wi-Fi status indicator light / LAN port indicator light / Power indicator light / Signal intensity indicator light
	Working Temperature	-30℃~+70℃	-30℃~+70℃
	Storage Temperature	-40℃~+85℃	
	Working Humidity	5%~95%RH(no condensation)	
	Equipment Dimension(mm)	265×265×47.5mm	280×30×80mm
	Equipment Weight	2.4Kg	0.45Kg
	Protection Level	IP66	N/A
Software	Encryption Way	WPA-PSK/WPA2/CCMP(AES)/TKIP	
	Network Mode	Route/Bridge	
	Working Mode	Access Point/Client/WDS AP/WDS client/WDS Repeater	
	Security Mechanism	IP/MAC address filtering, hide network name and etc.	
	Network Protocol	TCP/UDP/ARP/ICMP/DHCP/HTTP/NTP	
	TDMA Enhancement	Support (TDMA eliminate hidden nodes influence and greatly improve one-to-many performance)	

	Auto ACK timing Adjustment	Support (Auto optimize parameter within long-distance communication and make the performance optimal)
	Management and Log	NTP, SNMP, Syslog, Telnet
	Webpage Configuration Management	Support webpage configuration
	Firmware Update	Support Firmware webpage update
	Bandwidth Flexible Configuration	5M/10M/20M/40MHz

Appendix 2 Toxic or Hazardous Materials or Elements

Component Name	Toxic or Hazardous Materials or Elements					
	Pb	Hg	Cd	Cr VI	PBB	PBDE
Sheet Metal	○	○	○	○	○	○
Circuit Board Component	○	○	○	○	○	○
Device Case	○	○	○	○	○	○
Wire and AC adapter	○	○	○	○	○	○
Packing Components	○	○	○	○	○	○
Accessories	○	○	○	○	○	○

O: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the IEC62321 standard.

X: Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the IEC62321 standard. During the environmental-friendly use period (EFUP) period, the toxic or hazardous substance or elements contained in products will not leak or mutate so that the use of these (substances or elements) will not result in any severe environmental pollution, any bodily injury or damage to any assets. The consumer is not authorized to process such kind of substances or elements, please return to the corresponding local



authorities to process according to your local government statutes



Dahua Technology Co., Ltd

Address: No.1199 Bin'an Road, Binjiang District, Hangzhou, China.

Postcode: 310053

Tel: +86-571-87688883

Fax: +86-571-87688815

Email: overseas@dahuatech.com

Website: www.dahuatech.com