Dahua 5G Wireless Equipment Quick Configuration Manual

V 1.0.0
Zhejiang Dahua Technology CO., LTD

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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

Copyrights

Trademark

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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.
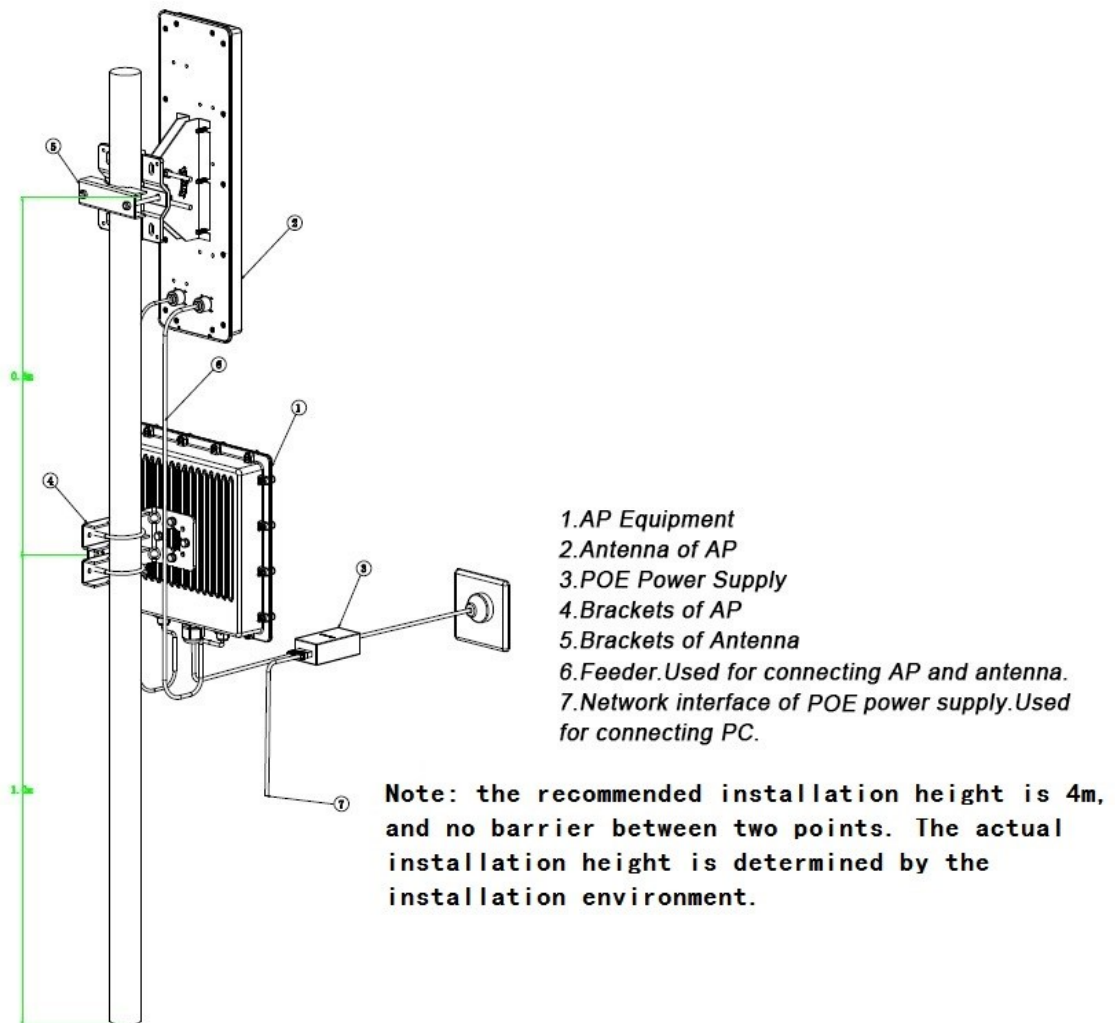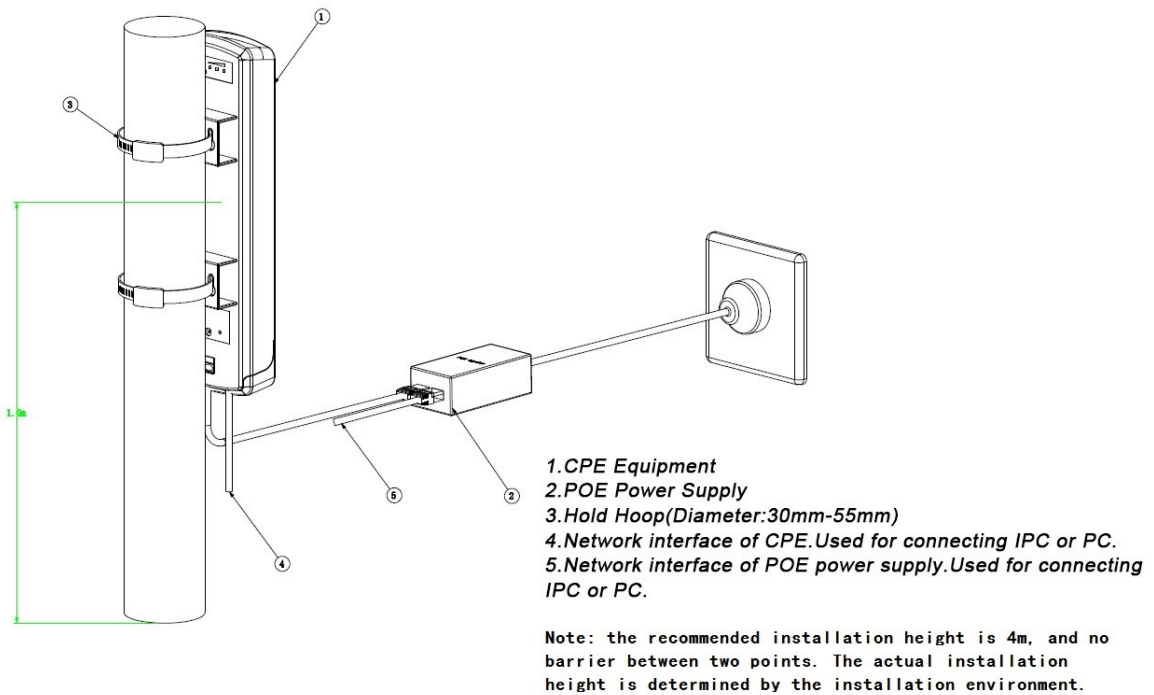
1 Line Connection

1.AP Equipment
2.Antenna of AP
3.POE Power Supply
4.Brackets of AP
5.Brackets of Antenna
6.Feeder.Used for connecting AP and antenna.
7.Network interface of POE power supply.Used for connecting PC.

Note: the recommended installation height is 4m, and no barrier between two points. The actual installation height is determined by the installation environment.

Figure 1-1

1. CPE Equipment
2. POE Power Supply
3. Hold Hoop(Diameter:30mm-55mm)
4. Network interface of CPE.Used for connecting IPC or PC.
5. Network interface of POE power supply.Used for connecting IPC or PC.

Note: the recommended installation height is 4m, and no barrier between two points. The actual installation height is determined by the installation environment.

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.
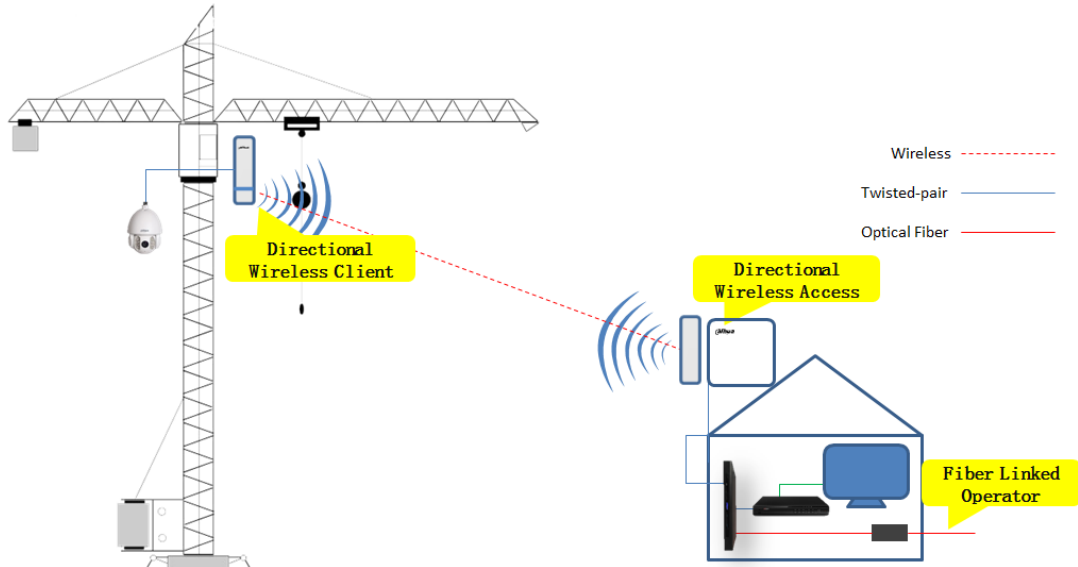

Figure 2-1

● 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.
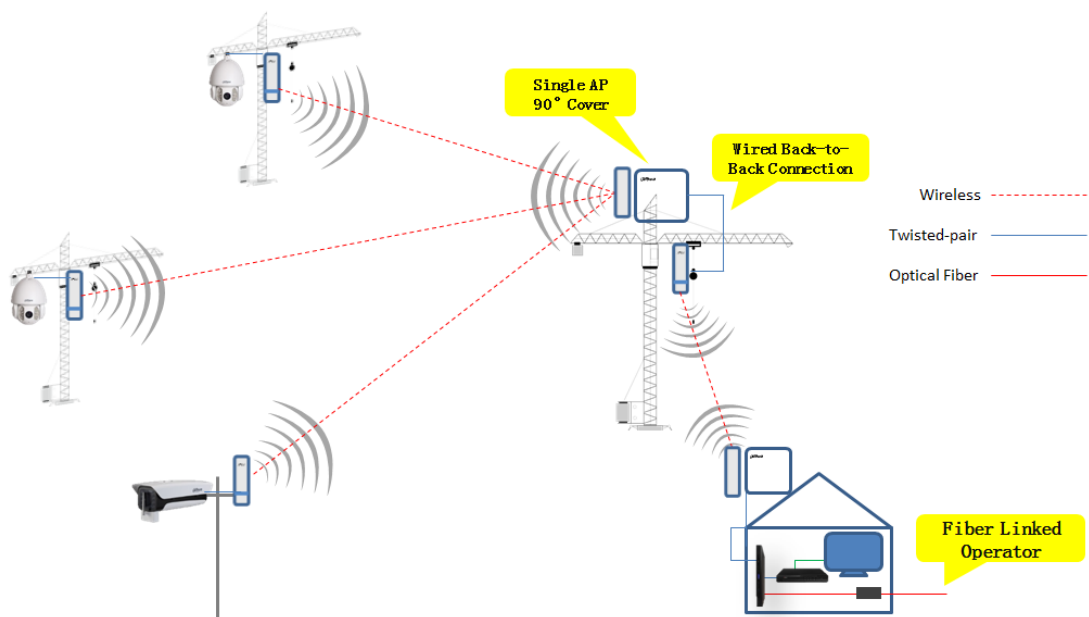

Figure 2-2

● 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.
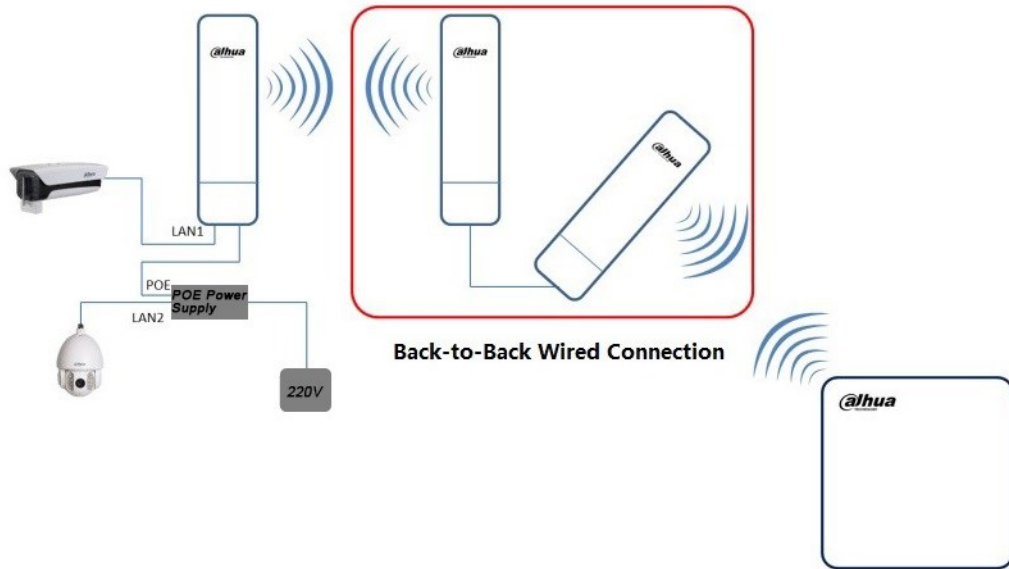

Figure 2-3

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

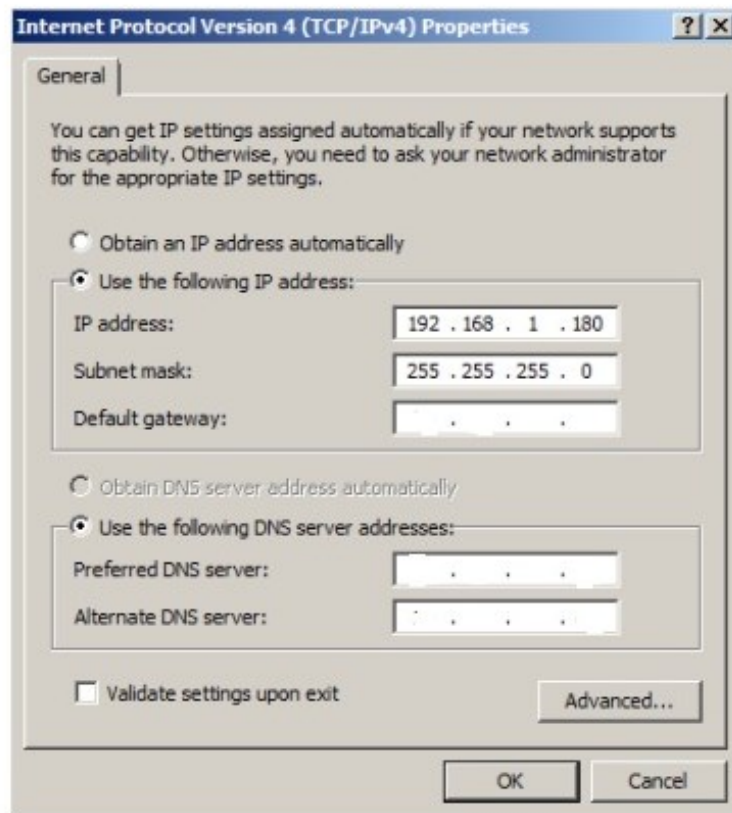Step 1 Configure host IP address with "192.168.1.x" (x can't be 36) (For example 192.168.1.180)

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.

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.
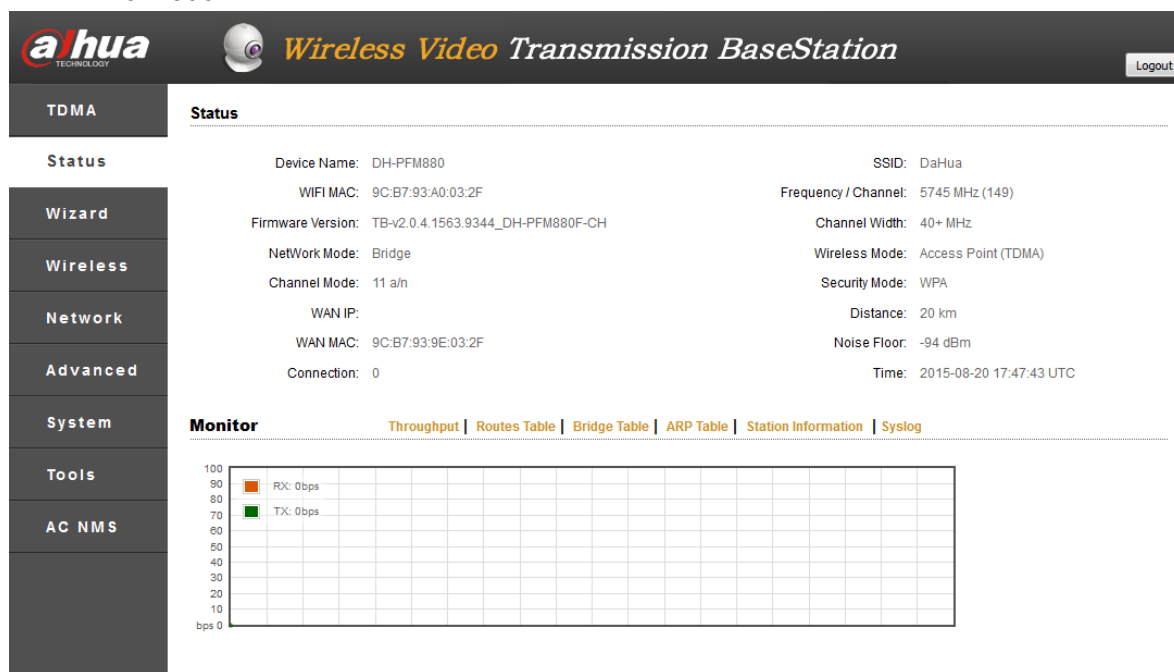

Figure 3-3

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
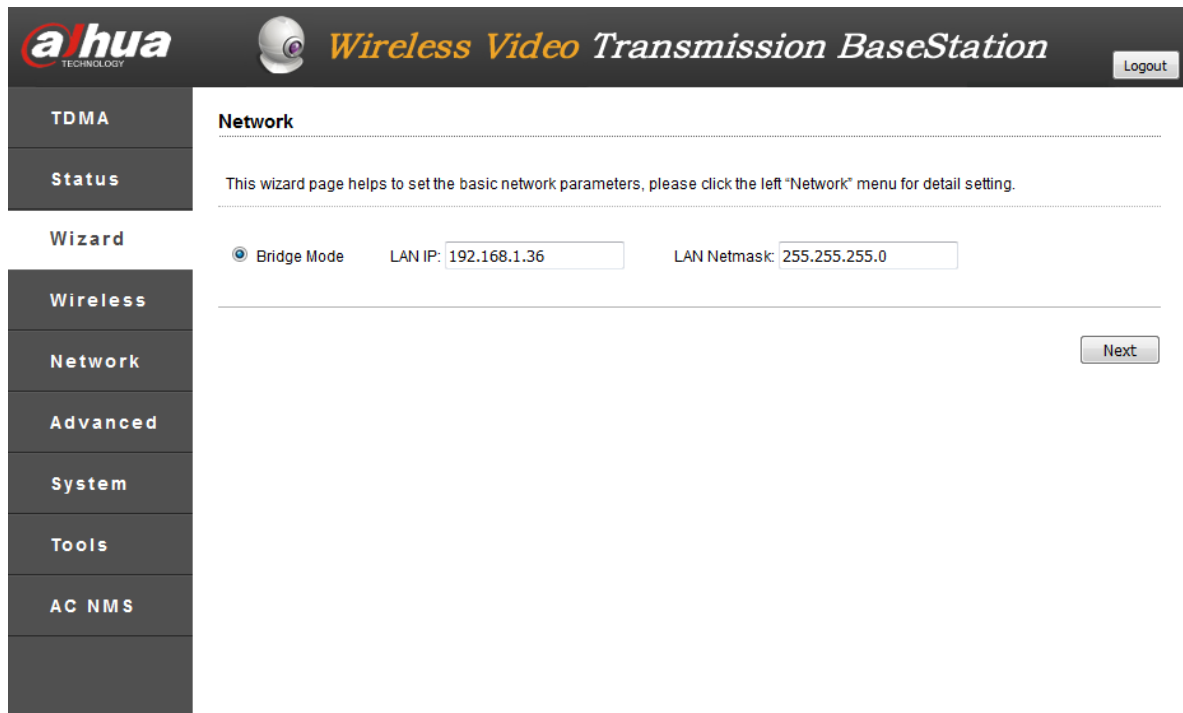
network.

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.
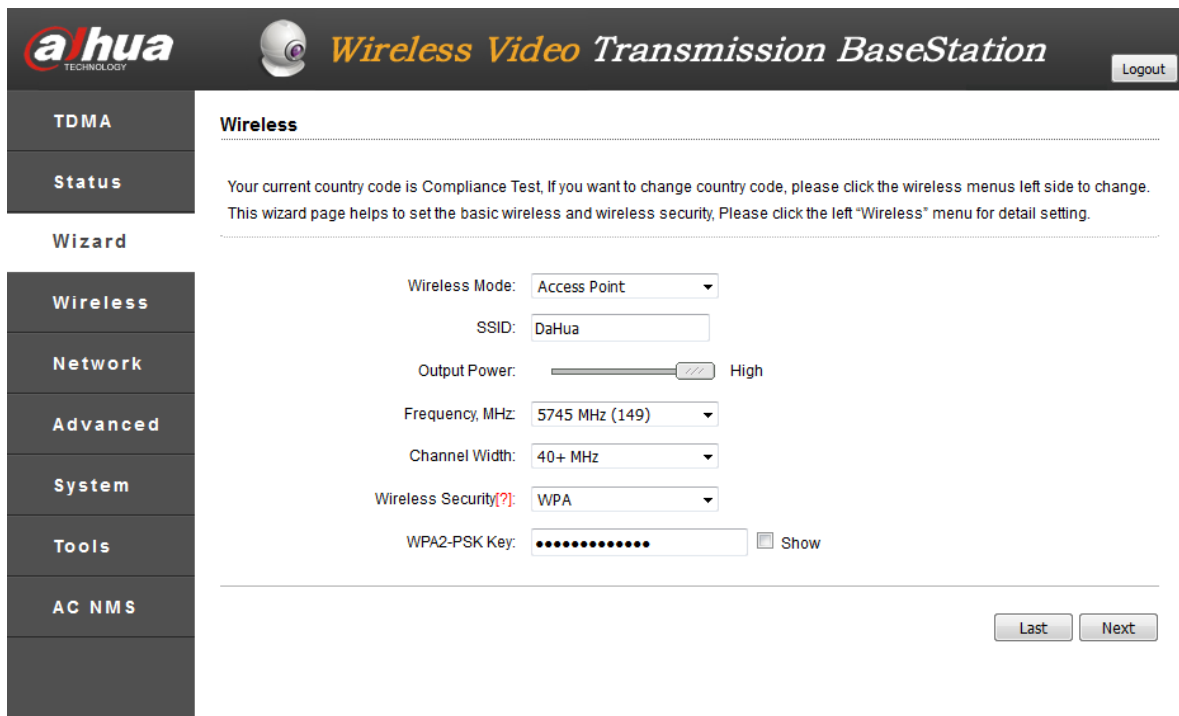
Figure 3-5

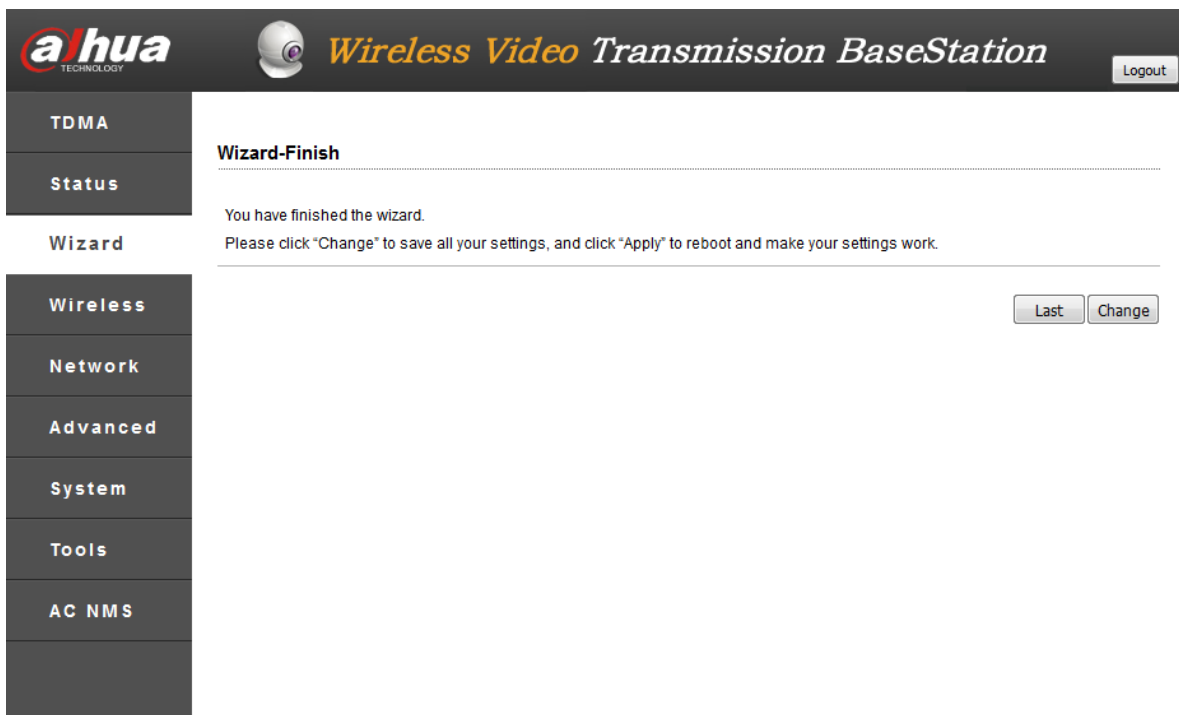Step 6 Click "Next" and it will display "Wizard-Finish" page.

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.
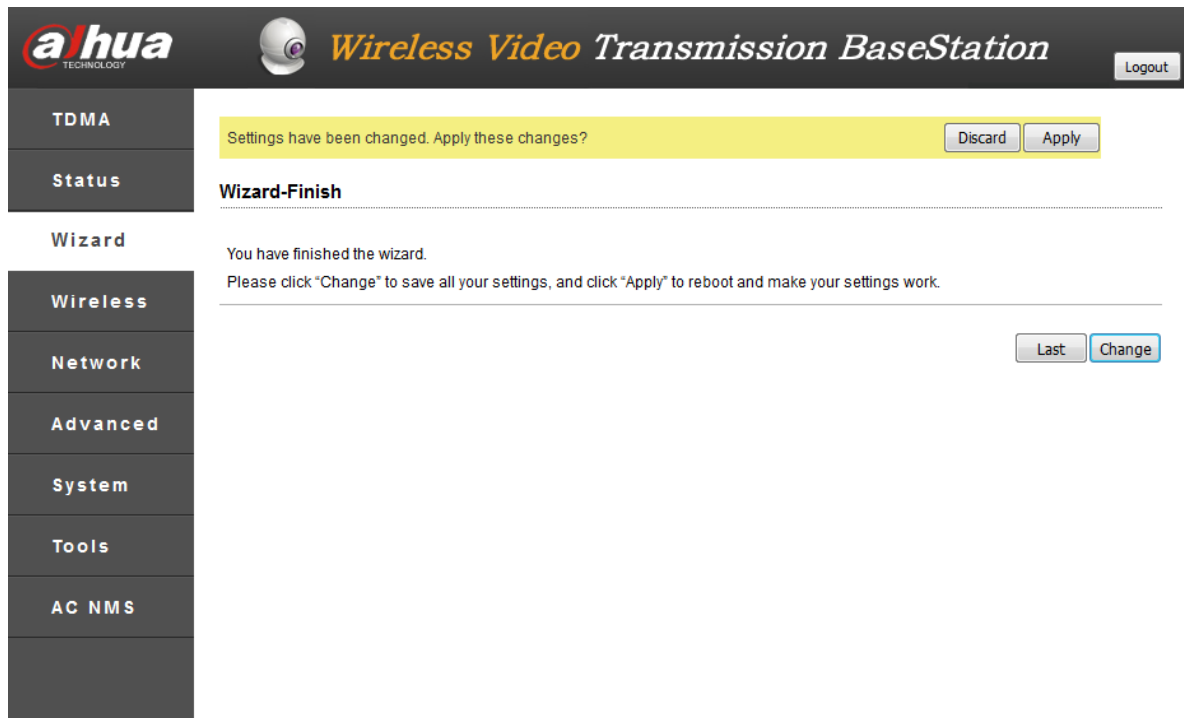
Figure 3-7

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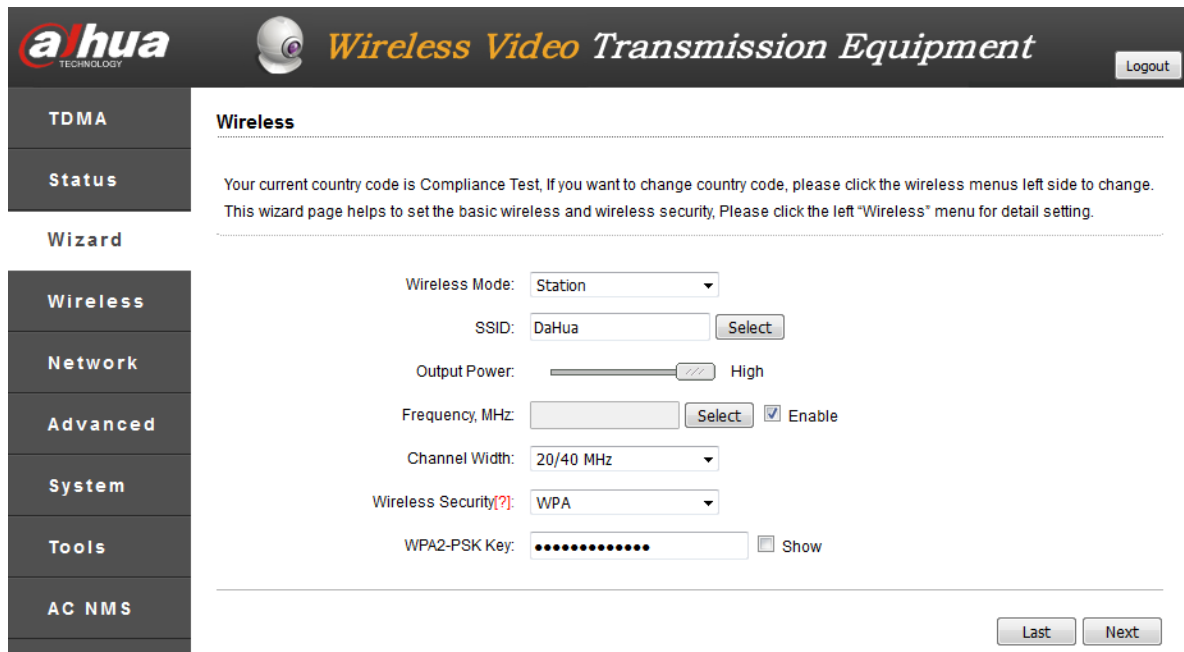

Figure 3-8

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

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

Select   Cancel

Figure 3-9

Step 10 Click "Next".

Wireless Video Transmission Equipment

TDMA	**Wireless**
Status	Your current country code is Compliance Test, If you want to change country code, please click the wireless menus left side to change. This wizard page helps to set the basic wireless and wireless security, Please click the left "Wireless" menu for detail setting.
Wizard	
Wireless	Wireless Mode: Station
Network	SSID: DaHua Select
Advanced	Output Power: ▬▬▬ High
System	Frequency, MHz: 5265,5270,5275,52 Select ☑ Enable
Tools	Channel Width: 20/40 MHz
AC NMS	Wireless Security[?]: WPA
	WPA2-PSK Key: ●●●●●●●●●●●● ☐ Show

Last   Next

Figure 3-10

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.
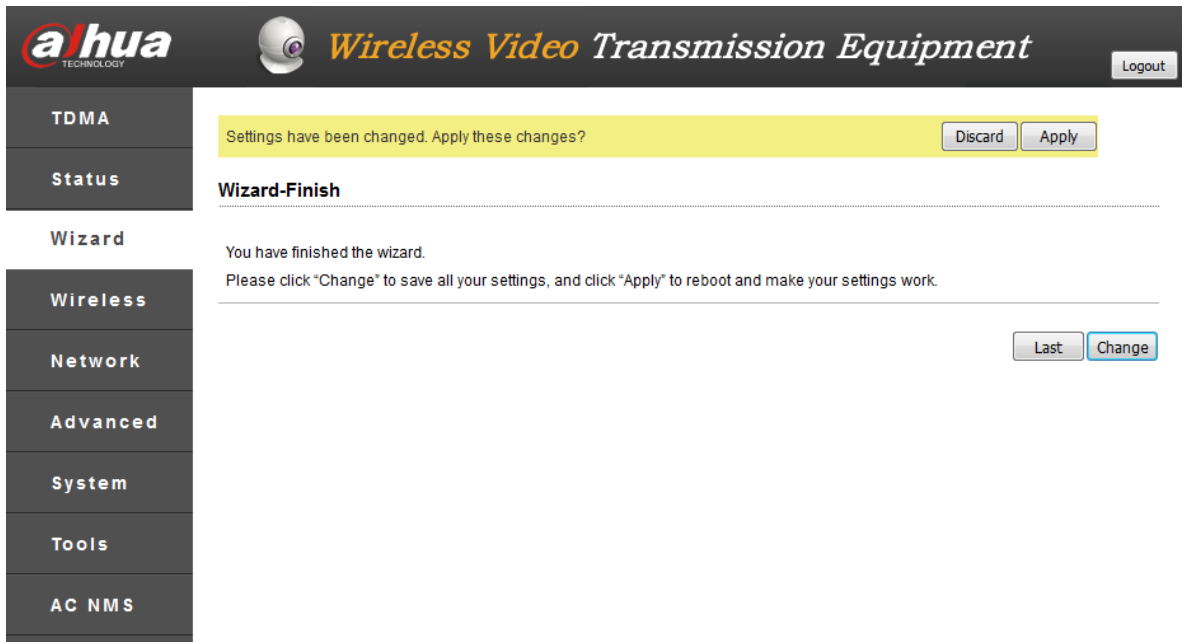

Figure 3-11

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@6Mpbs	-72dBm@65Mbps, -94dBm@6Mpbs
	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