DH-PFM 802.11ac Wireless Device
Quick Config Manual

V1.0.0

Zhejiang Dahua Vision Technology Co., LTD

Important Safeguards and Warnings

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

Attentions:

- 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.
- All the designs and software here are subject to change without prior written notice.
- All trademarks and registered trademarks are the properties of their respective owners.
- If there is any uncertainty or controversy, please refer to the final explanation of us.
- Please visit our website for more information.

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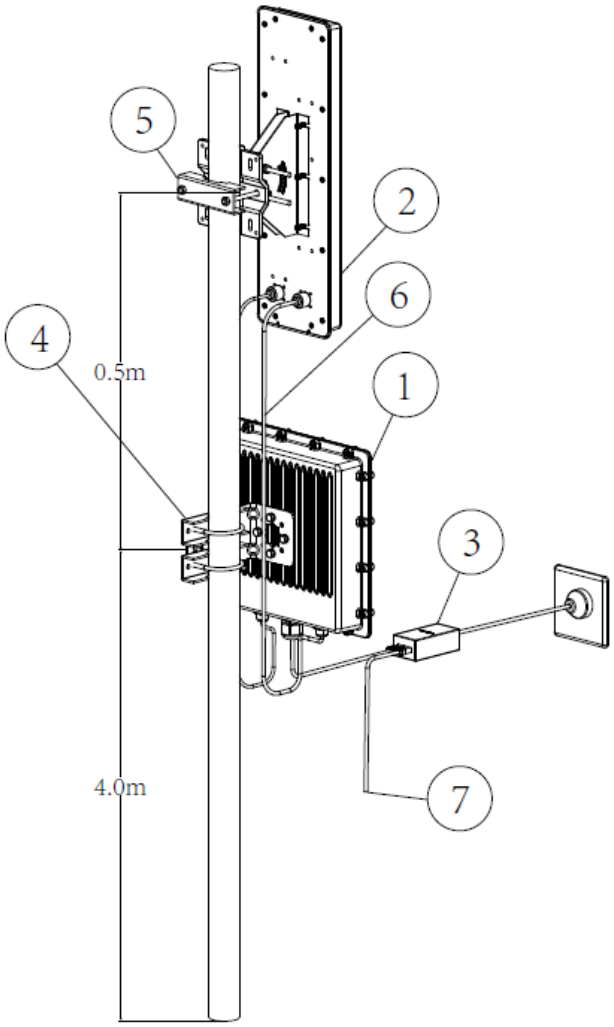
1 Cable Connection

Please refer to Figure 1-1 for the connection of DH-PFM880E.

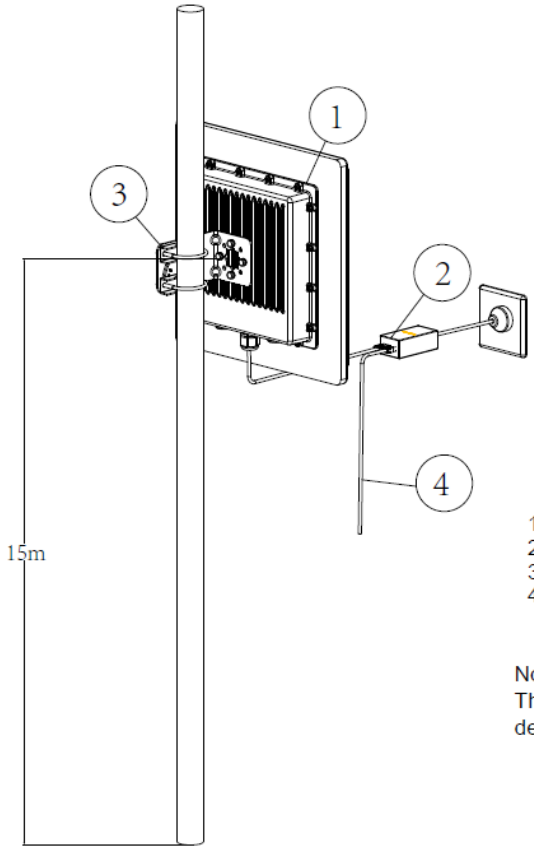


1.DH-PFM880E wireless equipment
2.Antenna
3.POE power supply
4.Brackets of equipment
5.Brackets of antenna
6.Feeder. Used for connecting equipment and antenna
7.Network interface of POE power supply. Used for connecting PC/camera.

Note:
The recommended installation height is 4m without barrier between two points.
The actual installation height is determined by the installation environment.

Figure 1-1

Please refer to Figure 1-2 for the connection of DH-PFM886-10.

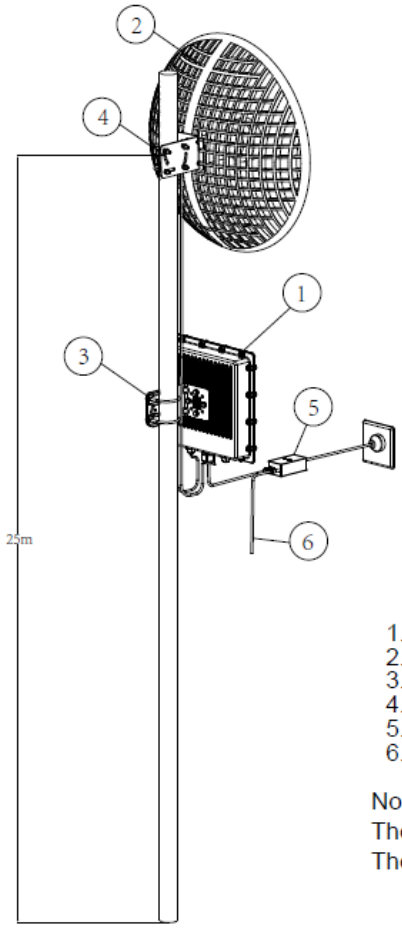


1.DH-PFM886-10 wireless equipment
2.POE power supply
3.Brackets of equipment
4.Network interface of POE power supply. Used for connecting PC/camera.

Note:
The recommended installation height is 15m.The actual installation height is determined by the installation environment.

Figure 1-2

Please refer to Figure 1-3 for the connection of PFM886-20.

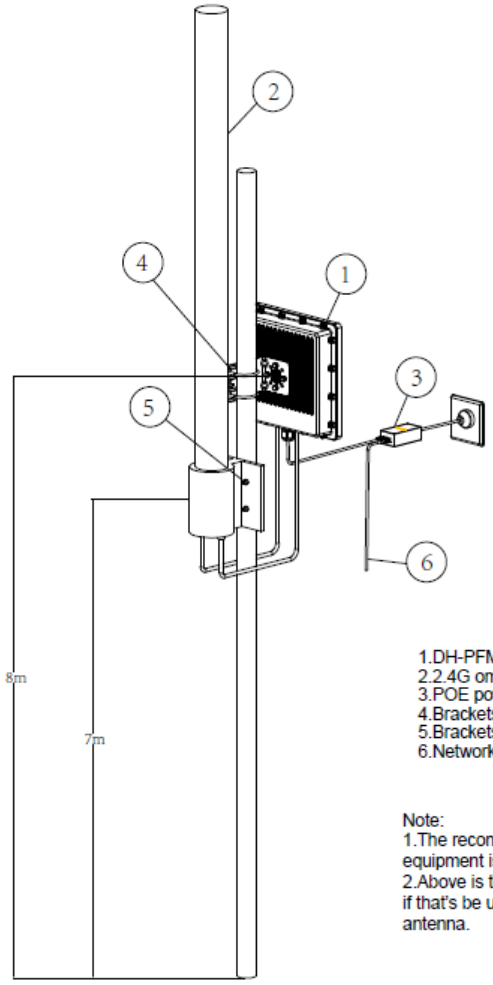


1.DH-PFM886-20 wireless equipment
2.Antenna
3.Brackets of equipment
4.Brackets of antenna
5.POE power supply
6.Network interface of POE power supply. Used for connecting PC/camera.

Note:
The recommended installation height is 25m without barrier between two points.
The actual installation height is determined by the installation environment.

Figure 1-3

Please refer to Figure 1-4 for the connection of DH-PFM880-M.

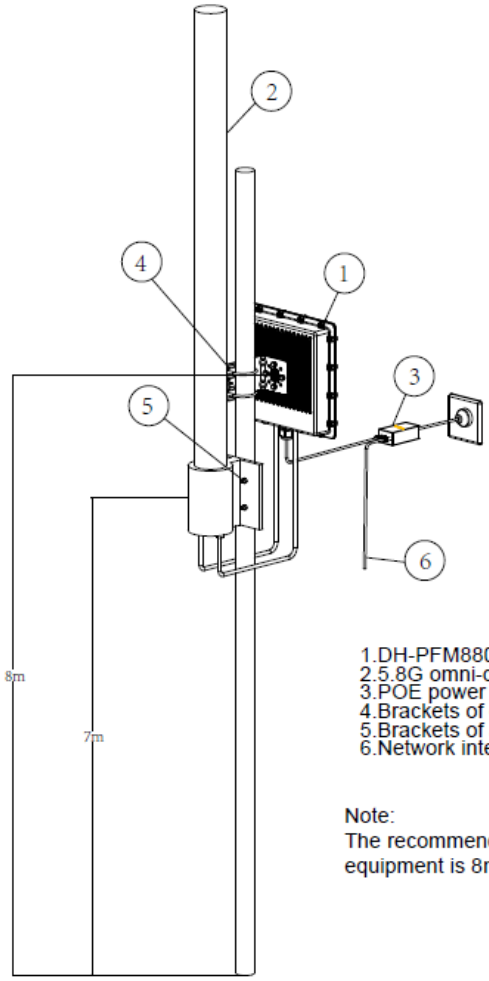


1.DH-PFM880-M wireless equipment
2.2.4G omni-directional antenna
3.POE power supply
4.Brackets of equipment
5.Brackets of antenna
6.Network interface of POE power supply. Used for connecting PC/camera.

Note:
1.The recommended installation height of antenna is 7m, the recommended installation height of equipment is 8m. The actual installation height is determined by the installation environment.
2.Above is the connection diagram of DH-PFM880-M wireless equipment and 2.4G omni-directional antenna, if that's be uesd for 5G configuration, can use the internal 5G antenna without installing 2.4G omni-directional antenna.

Figure 1-4

Please refer to Figure 1-5 for the connection of DH-PFM880-A.



1.DH-PFM880-A wireless equipment
2.5.8G omni-directional antenna
3.POE power supply
4.Brackets of equipment
5.Brackets of antenna
6.Network interface of POE power supply. Used for connecting PC/camera.

Note:
The recommended installation height of antenna is 7m, the recommended installation height of equipment is 8m. The actual installation height is determined by the installation environment.

Figure 1-5

Please refer to sheet 1-1 for more details about the port.

Device Model	Port	Port Name	Connection and Function
DH-PFM880E	One RJ45 port	PoE	It can provide 48V power and data transmission via connecting network cable to the “PoE” port of the PoE power device, the “LAN” port on PoE power device can connect to switch or other devices, which can be used as a debugging interface as well.
DH-PFM886-10			
DH-PFM886-20			
DH-PFM880-M			
DH-PFM880-A			

Sheet 1-1

2 Typical Working Mode

The typical working mode of DH-PFM88X series product includes PTP, PTMP and wireless coverage.

- **PTP**

Please refer to Figure 2-1 and Figure 2-2 for the working mode of PTP.

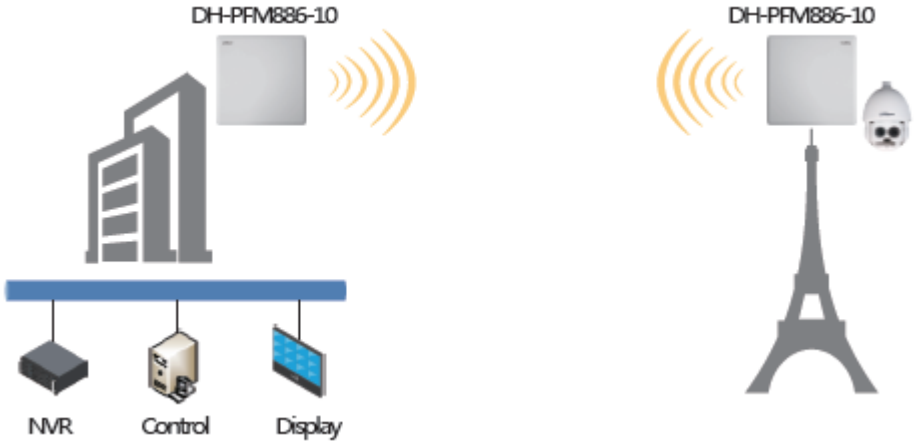


Figure 2-1

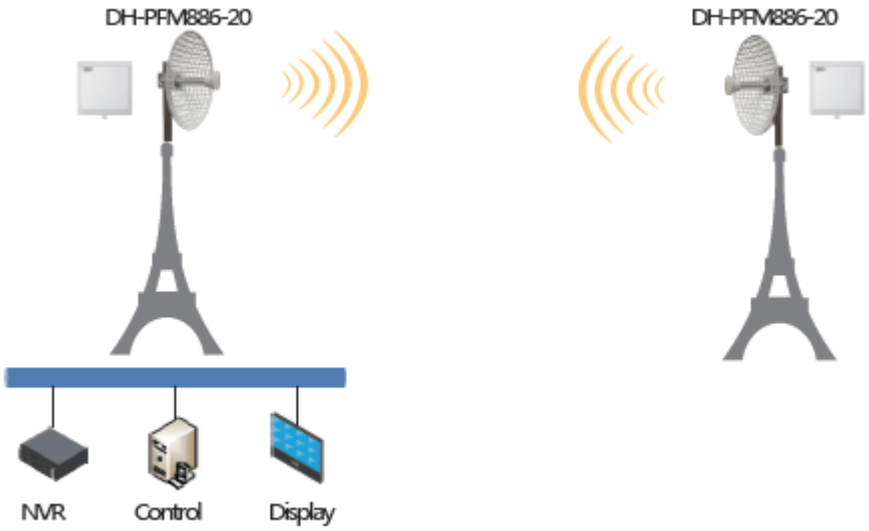


Figure 2-2

- **PTMP**

Please refer to Figure 2-3 for the working mode of PTMP.

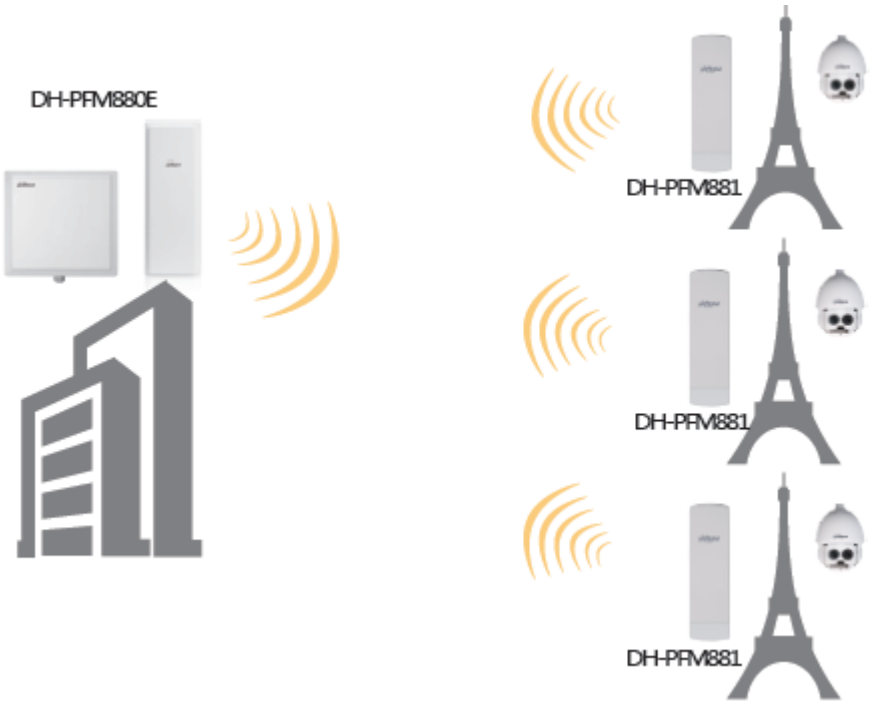


Figure 2-3

- **Coverage**

Please refer to Figure 2-4 for the working mode of Coverage.

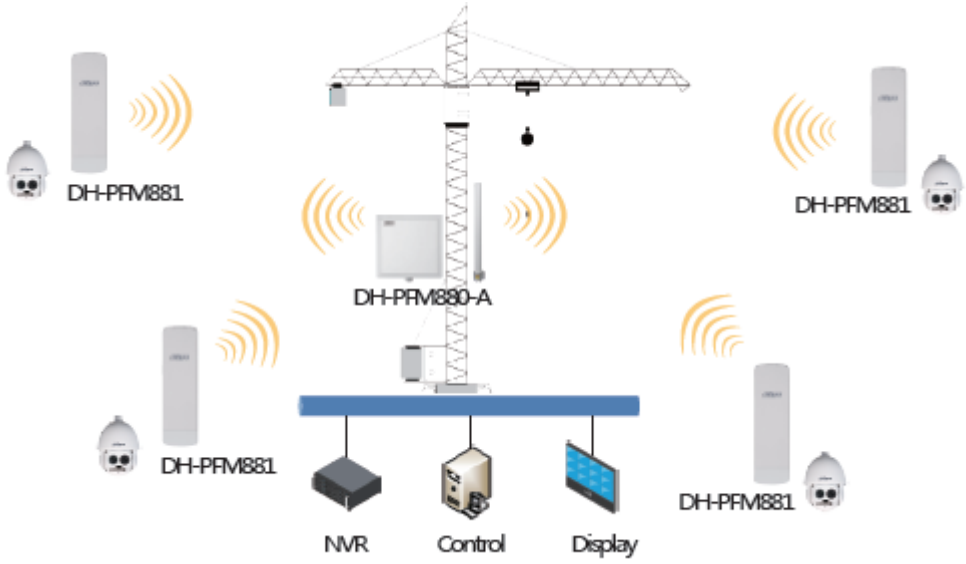


Figure 2-4

- **Coverage & Transfer Back**

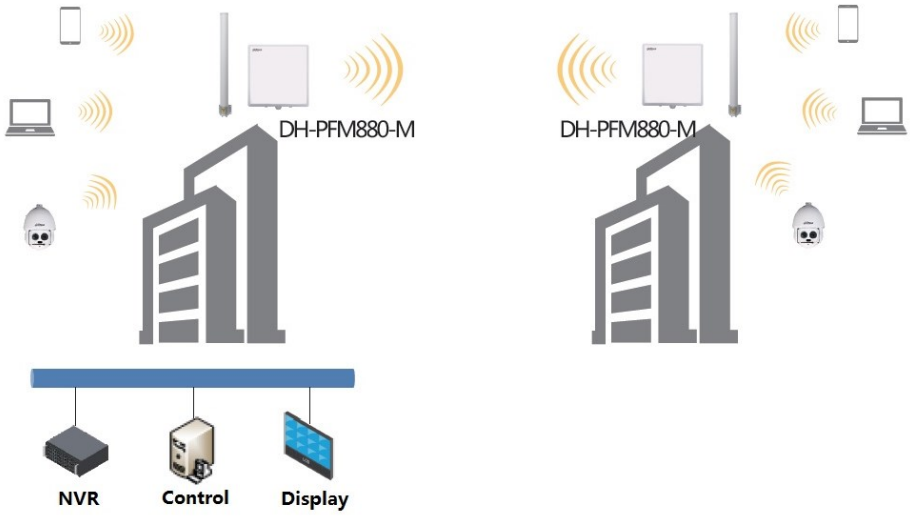


Figure 2-5

3 Device Config

Precondition

Please refer to the cable connection figures to connect the device to mainframe and power it on.

Operation Steps

Step 1

Configure the static IP address of mainframe IP address “192.168.1.x” network segment (such as 192.168.1.180).

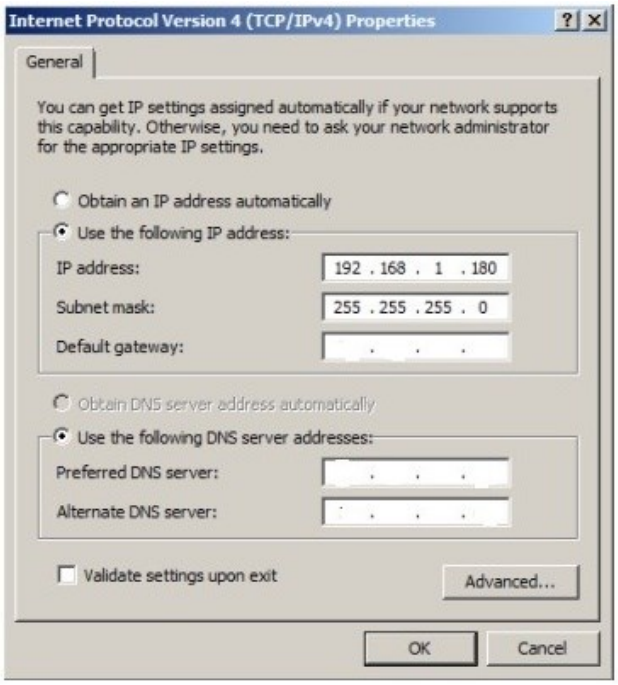


Figure 3-1

Step 2

Input the default IP address 192.168.1.36 of DH-PFM88X (such as DH-PFM886-10) into the browser, and the system will display the login interface which is shown in Figure 3-2.

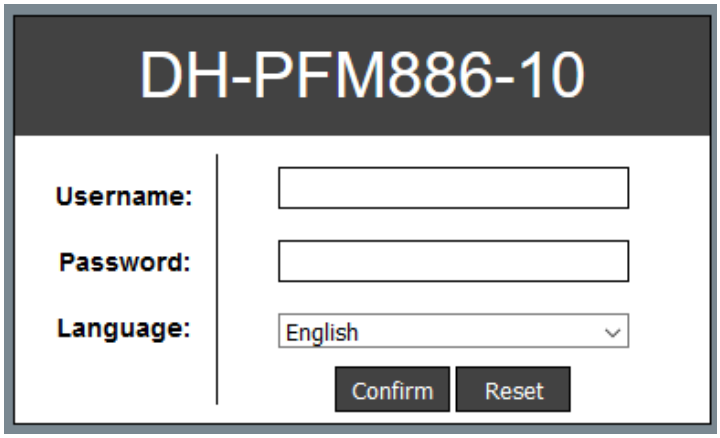


Figure 3-2

Step 3

Input username and password (both are admin by default), click “Confirm”. The system will display the status interface of DH-PFM88X, which includes working status, current settings and software version etc.

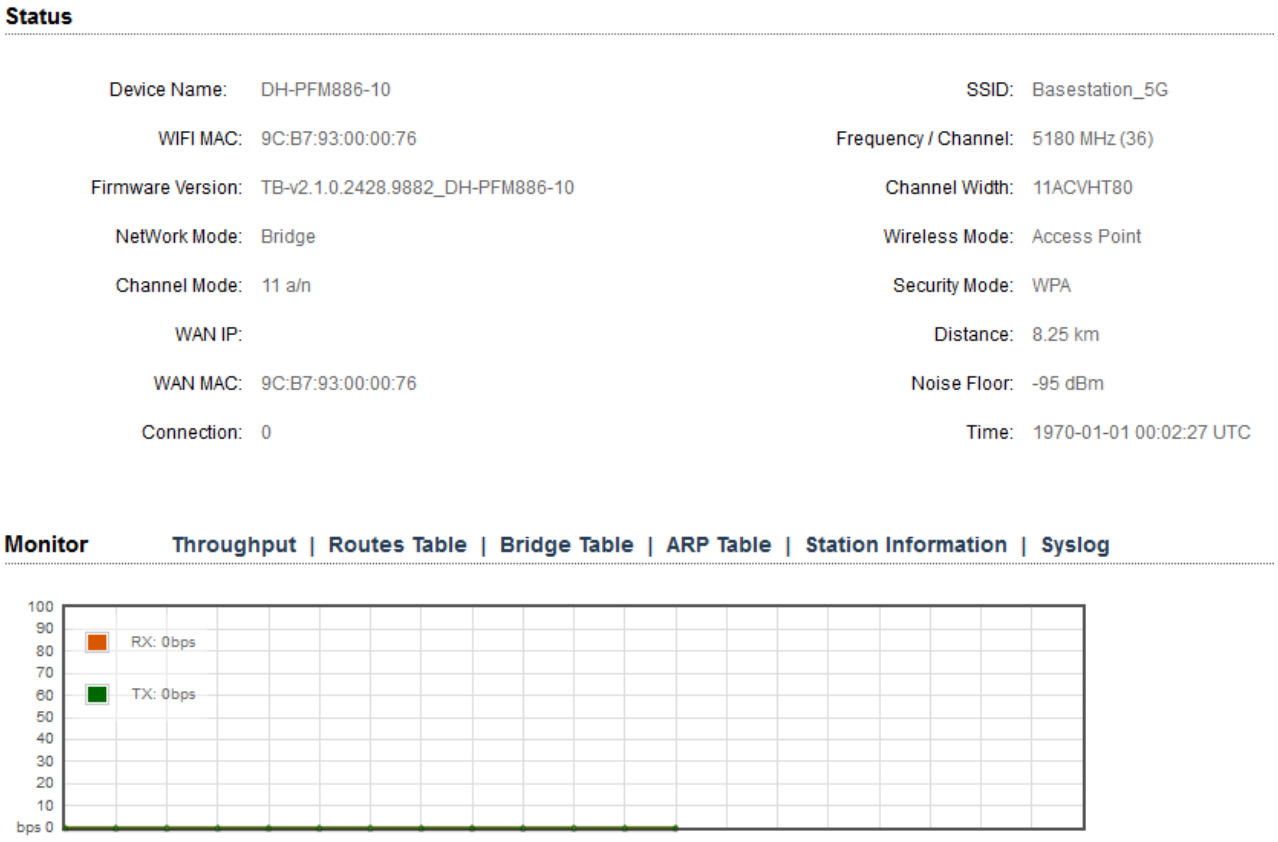


Figure 3-3

Step 4

Click “Setting Wizard”. The wizard can help the users to configure the device quickly, such as network config, wireless mode etc. You can also enter the detailed config interface via clicking the interface menu, here it will display the basic network parameter config. The default config of the device is “Bridge Mode”, and the IP address of LAN is “192.168.1.36”.

Note:

The device IP is unique in the same LAN, please modify the device LAN IP to make sure there is no IP conflict in the same LAN.

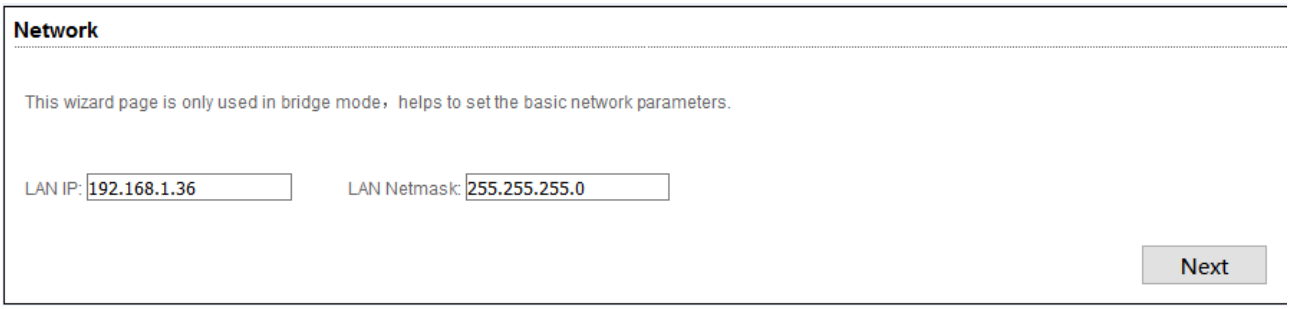


Figure 3-4

Step 5

Click “Next” to display the basic wireless parameter config and wireless encryption option.

The two most common wireless mode of DH-PFM88X are “Client” and “Access Point”. The access point of LAN has to be in accordance with the wireless encryption option, network name option and password option of the client of wireless device in the same LAN.

Note:

- “Client” mode, generally it is considered as client mode if it connects to the camera device.
- “Access Point”, generally DH-PFM88X device in LAN is set as access point mode, uplink to the monitoring room.
- Please be noted that it has to set different frequencies for different access point devices when there are several access points in the same area.

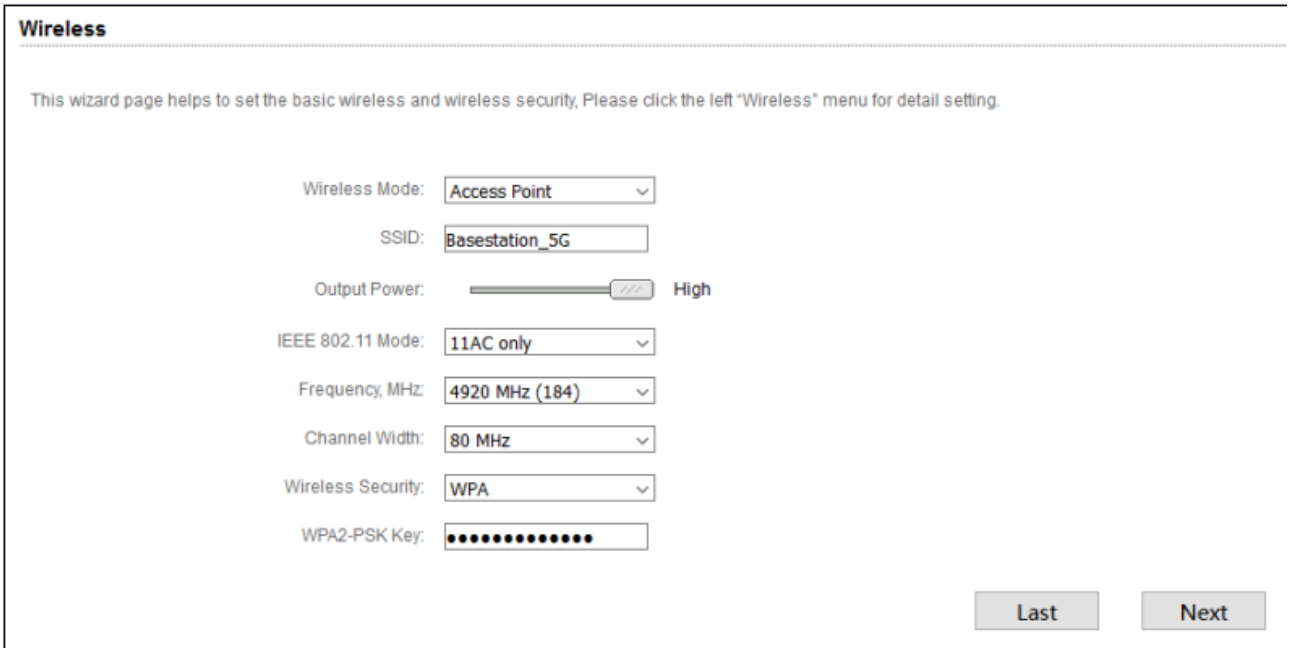


Figure 3-5

Step 6

Click “Next” and it will display the page of “Setting Wizard-Finish”.

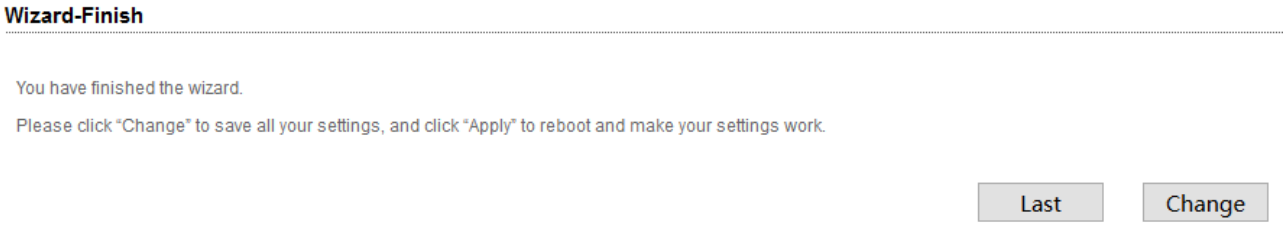


Figure 3-6

Step 7

Click “Change” button to save all the settings, then click “Apply” button to make yours settings valid. Besides, you can click “Last” to modify the previous settings.

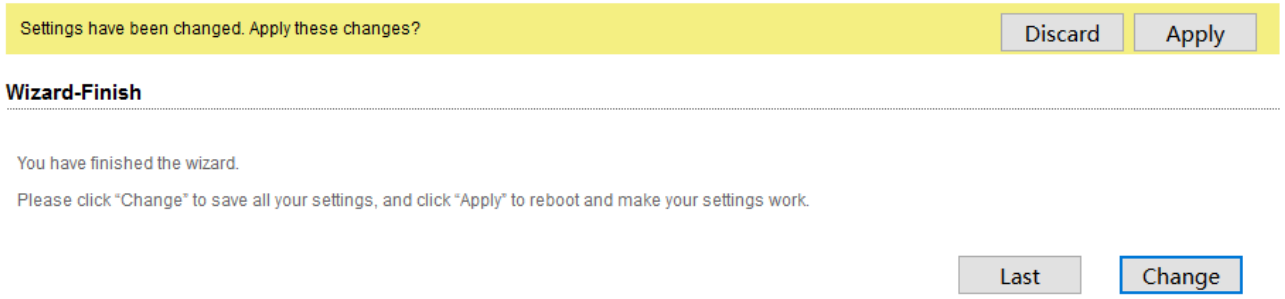


Figure 3-7

Step 8

When the wireless mode is selected as “Station”, it is advised to enable the frequency limit function of the client to make it quickly get to the access point. Please refer to the following figure after the frequency is enabled.

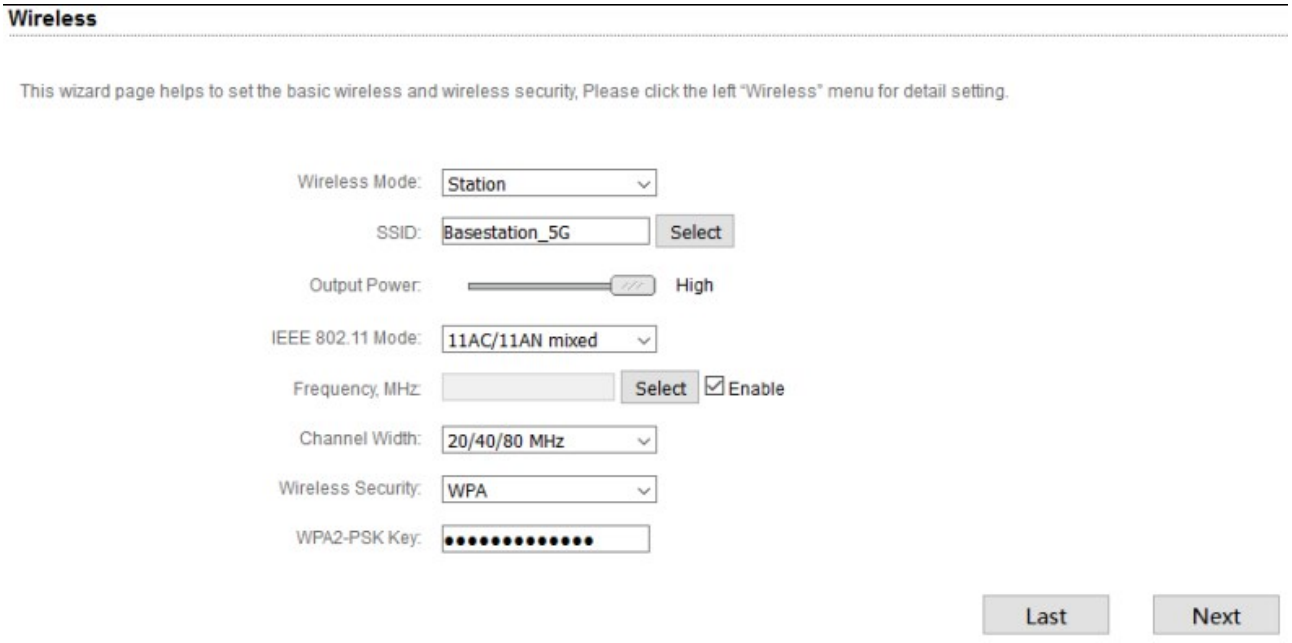


Figure 3-8

Step 9

Click “Select” and it will display the following frequencies for you to select. The frequency range depends on the option of country code. Please click the “Select” below after it is confirmed.

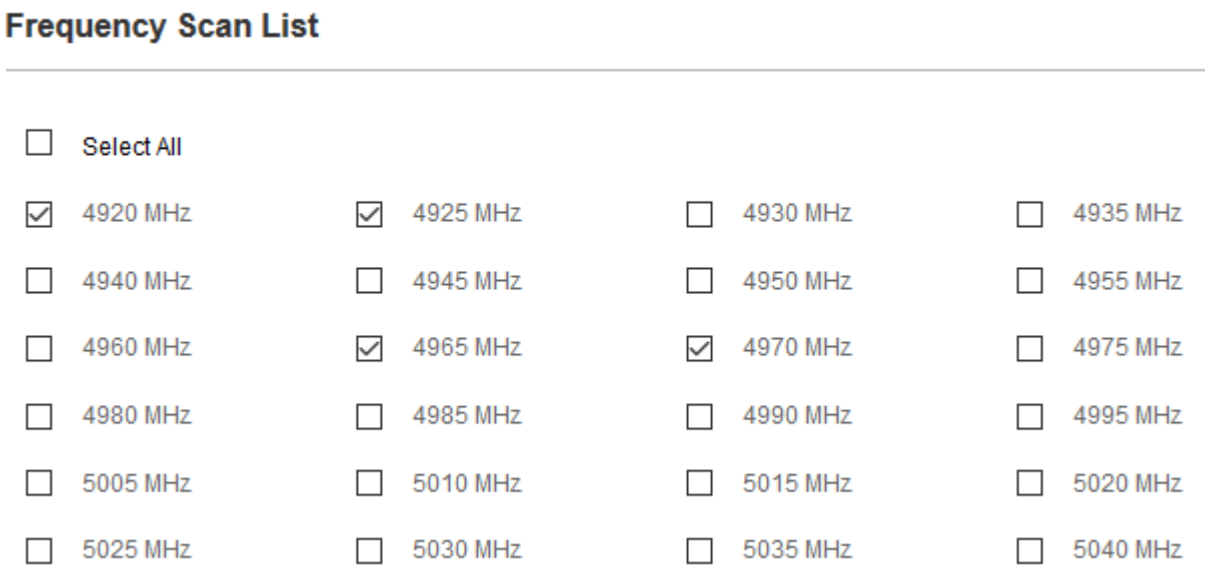


Figure 3-9

Step 10

Select the frequency which appears in the list. Click “Next”.

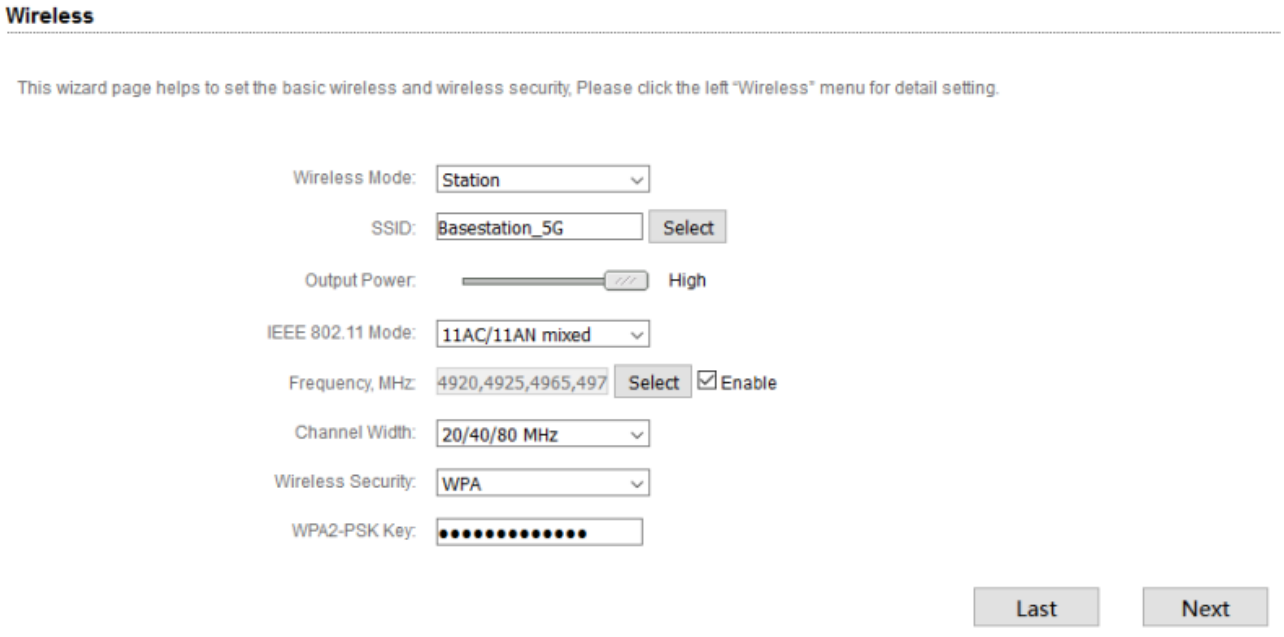


Figure 3-10

Step 11

Save the settings and apply.

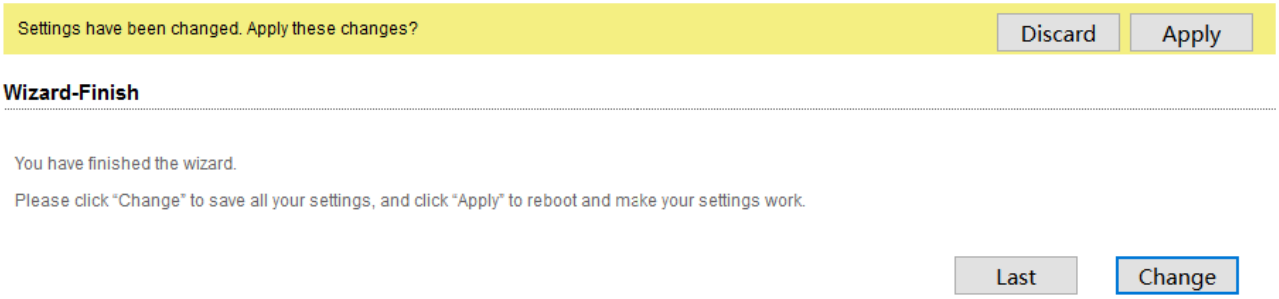

Settings have been changed. Apply these changes?
Discard
Apply
Wizard-Finish
You have finished the wizard.
Please click "Change" to save all your settings, and click "Apply" to reboot and make your settings work.
Last
Change

Figure 3-11

4 Appendix 1 Technical Specifications

Model	DH-PFM880E	DH-PFM886-10	DH-PFM886-20	DH-PFM880-A	DH-PFM880-M
Wireless standard	IEEE802.11 a/n/ac				IEEE802.11 a/n/ac IEEE802.11 b/g/n
Working frequency	5745~5825MHz（support frequency extension, extension range 4900~6100MHz） 2400~2500MHz（support frequency extension, extension range 2312~2732MHz）(only supported by DH-PFM880-M)				
Antenna standard	External antenna： Gain 17dBi Horizontal 90° Vertical 8°	Built-in antenna: Gain 25dBi Horizontal 11° Vertical 11°	External antenna: Gain 29dBi Horizontal 9° Vertical 9°	External antenna: Gain 12dBi Horizontal 360° Vertical 21°	External 2G antenna: Gain 13dBi Horizontal 360°，vertical 8° Built-in 5G antenna: gain 18dBi Horizontal 17°，vertical 17°
Max power	27dBm				
Receive sensitivity	11a：-91dBm@6Mbps 11n：-74dBm@MCS7 11ac：-67dBm@MCS9				11b：-93dBm@1Mbps 11g: -92dBm@6Mbps 11a：-91dBm@6Mbps 11n：-74dBm@MCS7 11ac：-67dBm@MCS9
Max speed	11ac：867Mbps（80M channel width）				
	11n：300Mbps(40M channel width)				
Power supply	48V/0.5A 802.3at				
Interface	POE *1				
Working	-40℃～+70℃				

temperature					
Storage temperature	-40℃～+85℃				
Working humidity	5%～95%RH non-condensation				
Enclosure feature	Aluminium casting				
Installation package	Pole installation				
Dimension（mm）	265*265*47.5	372*372*95	265*265*47.5	265*265*47.5	268*268*82
Weight（kg）	2.4	2.8	2.4	2.4	2.5
Antenna dimension（mm）	450×166×60	N/A	Ø600	Ø72*850	Ø72*1200
Antenna weight（kg）	1.5	N/A	2.5	2	3.5
Max power consumption	Less than 15W				Less than 20W
Encryption mode	802.1x/WPA-PSK/WPA2-PSK				
Network mode	Route/bridging				
Working mode	Access point/clientWDS access point/WDS client				
Security mechanism	IP/MAC address filtering, conceal netwrok name				
Network protocol	TCP/UDP/ARP/ICMP/DHCP/HTTP/NTP				
TDMA enhance	Support（TDMA remove the influence of hidden nodes, greatly improve one-to-many performance）				
Auto ACK timing adjust	Support（auto optimize parameter during long-distance communication to realize bestperformance）				
Management and log	NTP，Syslog，Telnet，AC，SNMP				
Config management	Support webpage config, support AC remote management, support SNMP management				
Firmware update	Support webpage update, support AC remote upgrade				

Note

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