
WiFi Network Speed Dome Installation Manual

Version 1.0.0

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Welcome

Thank you for purchasing our speed dome!

Please read the following safeguards and warnings carefully before you install or use the product!

Important Safeguards and Warnings

Safety Measures

1. Qualified Engineer Needed

- The installation engineer or maintenance engineer shall have corresponding CCTV system installation certificate or maintenance qualification certificate.
- The installation engineer or maintenance engineer shall have qualification certificate for work at height.
- The installation engineer or maintenance engineer shall have the basic knowledge and operation technique for low-voltage cable layout and low-voltage electronic cable connection.
- Please read the installation manual carefully and keep it well for future reference,
- We are not liable for any problems caused by unauthorized modifications or attempted repair.

2. Lifting Appliance Requirement

- Please select the proper speed dome installation mode and use the lifting appliances at the safety environment.
- The lifting appliances shall have the enough capacity to reach the installation height.
- The lifting appliances shall have safe performance.

The precaution measures include two types: Warning and Note.

- **Warning:** It is to alert you there is an optional risk of death or series injury!
- **Note:** It is to alert you there is an optional risk of damage or property loss!

Warning

1. All installation and operation here should conform to your local electrical safety codes. We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.
2. Do not connect several speed domes to one power adapter. It may result in overheat or fire if it exceeds the rated load.
3. Before you connect the cable, install or uninstall, or begin the daily maintenance work, please turn off the power and unplug the power cable.
4. Please make sure the product is secured firmly on the wall or the ceiling.
5. Please turn off the power and unplug the power cable, If there is any smoke, disgusting smell, or noise. Please contact your local retailer or customer service center for help.
6. All the examination and repair work should be done by the qualified service engineers. We are not liable for any problems caused by unauthorized modifications or attempted repair.

Note

1. Safety Transportation

-
- Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.
 - This series product must use split type package during the transportation.
 - We are not liable for any damage or problem resulting from the integrated package during the transportation.

2. When device is malfunction

Shut down the device and disconnect the power cable immediately if there is smoke, abnormal smell or abnormal function. Please contact your local retailer ASAP.

3. Do not try to dismantle or modify the device

- There is risk of personal injury or device damage resulting from opening the shell.
- Please contact your local retailer if there is internal setup or maintenance requirement.
- We are not liable for any problems caused by unauthorized modifications or attempted repair.

4. Do not allow other object falling into the device

- Please make sure there is no metal or inflammable, explosive substance in the speed dome.
- The above mentioned objects in the device may result in fire, short-circuit or damage.
- Please shut down the device and disconnect the power cable if there is water or liquid falling into the camera. Please contact your local retailer ASAP.
- Please pay attention to the camera. Avoid the sea water or rain to erode the camera.

5. Handle carefully

Do not allow this series product fall down to the ground.
Avoid heavy vibration.

6. Installation Environment Requirement

- This series speed dome should be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.
- This series product shall be away from the strong electromagnetism radiant, please keep it away from wireless power, TV transmitter, transformer and etc.

7. Daily Maintenance

- Please use the soft cloth to clean dust on the shell, or you can use soft cloth with cleaning liquid to clean the shell and then use soft cloth to make it dry.
- Do not use gasoline, dope thinner or other chemical material to clean the shell. It may result in shell transfiguration or paint flake.
- Do not allow the plastic or rubber material to touch the shell for a long time. It may result in paint flake.
- It is highly recommended to use the product with a lightning-proof device, which can realize better lightning-proof effect.

1 Installation Preparation

1.1 Basic Requirement

- All the electric operation here should conform to your local electrical safety and fire prevention codes.
- Make sure if the application scene of the speed dome conforms to the installation requirement. Please contact local dealer if you have any confusions.
- Please use the product according to the operating environment.
- Please keep the original packing materials properly after you open the packing box; use original packing materials to pack the product and send it to back for maintenance in case the device malfunctions.

1.2 Installation Check

- Please make sure the installation environment has enough space to install the product and its components.
- Please make sure the ceiling or wall can sustain the 8X weight of the speed dome and its corresponding installation component.
- Please make sure the wall is thick enough to install expansion bolts (need to be prepared by users themselves).
- It needs to pay attention that the installation height is required to be more than 6m if it is an intelligent tracking speed dome or laser speed dome.

1.3 Cable Preparation

Please select the specification of required video cable and video coaxial cable according to the transmission distance.

1.3.1 The Min Specification Requirements of Cable

- 75 ohm impedance.
- Full cable with copper conductor
- 95% knitted copper shield
- Please refer to appendix II for more information about RS485 communication cable.

International Model	Max Distance (Ft\M)
RG59/U	750ft (229m)
RG6/U	1,000ft (305m)
RG11/U	1,500ft (457m)

Note

The above can be applied to analog speed dome and network speed dome.

International Model	Max Distance (Ft\M)
SYV-75-3	720P (25fps/30fps): 1,640ft/500m
	720P (50fps/60fps): 984ft/300m
	1080P (25fps/30fps): 984ft/300m

Note

The above can be applied to HDCVI speed dome.

1.3.2 Power Supply Cable Specification**1.3.2.1 Power Supply Cable Specification**

Please refer to appendix III for AC 24V power supply device.

Please refer to appendix IV for DC 12V power supply device.

1.3.2.2 PoE Power Supply Device Cable Specification

Please refer to Table 1-1 for the cable specification of PoE power supply device.

POE Specification	Cable Specification
AF	CAT4 and higher
AT	CAT5 and higher
HiPoE or BT	CAT5E and higher

Table 1-1

2 Installation Preparation

2.1 Check Accessories

Before installation, please check if the device is complete in the packing box and all the components are included (refer to packing list for more details)

2.2 Open Device

Open the packaging and take out the speed dome, the appearance is shown in Figure 2-1.

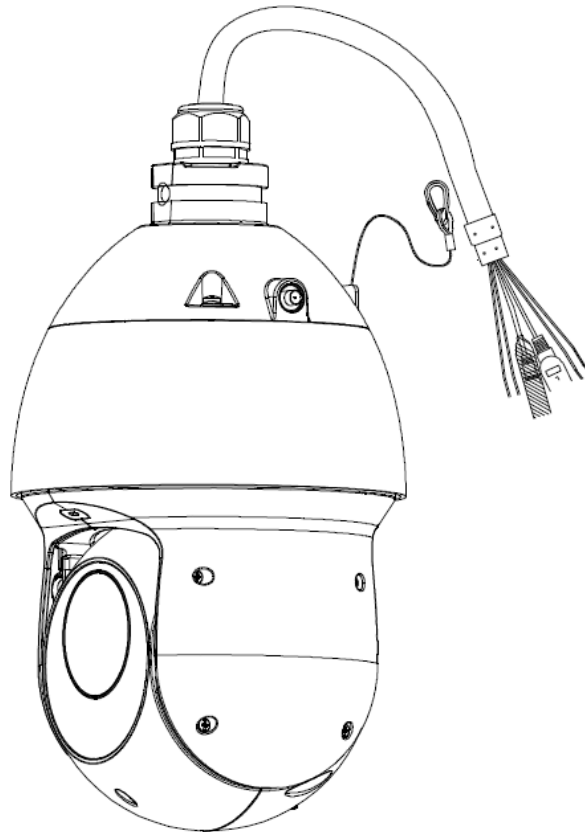


Figure 2-1

2.3 DIP Switch Setup

2.3.1 DIP Switch Location

Open the rear cover of the speed dome and you can see there is DIP switch on the mainboard, which is shown in Figure 2-2. DIP switch is used to set address, baud rate and parity parameter of the speed dome.

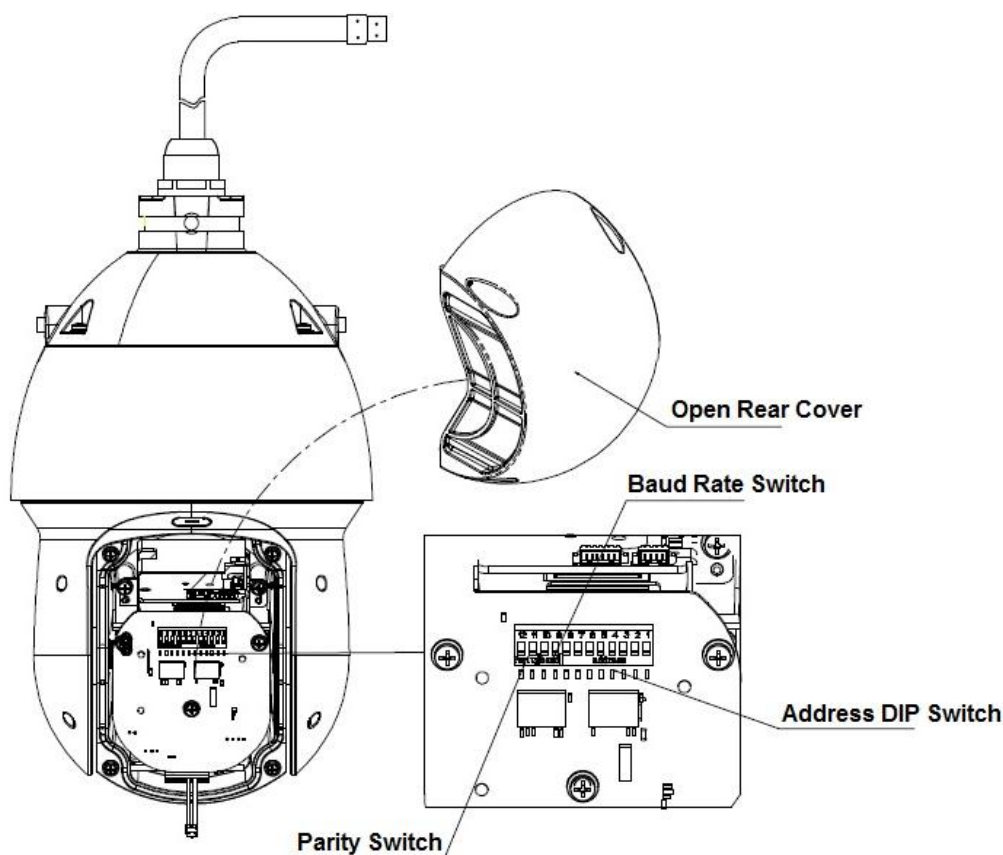


Figure 2-2

2.3.2 DIP Switch Function

It has to set address number, baud rate and parity parameters used by speed dome before controlling the speed dome. The speed dome will respond to those control commands only after these settings are completed.

Note

- It has to install back to transparent dome cover component after taking out EPE and setting DIP for wall-mounted speed dome.
- It has to cut off the power and restart the device to make new settings valid after relevant information is set again.

There are two DIP switches on the PTZ of speed dome, which are used to confirm speed dome address, baud rate and parity parameters. Turn the switch to ON as 1, then 1 is the lowest and 8 is the highest bit in the address DIP setting; 9 is the lowest bit and 12 is the highest bit in the baud rate and parity DIP setting (intelligent speed dome is self-adaptive to PELCO-D, PELCO-P and industrial standard protocol, control protocol doesn't need to be set via DIP switch).

2.3.3 DIP Setup

2.3.3.1 Address Setup

Speed dome can use DIP switch to set address number, encoding mode adopts binary coding. 1~8 bit is valid bit, the highest address bit is 255, address label is shown in Figure 2-3, refer to Table 2-1 for address bit setting.

1	2	3	4	5	6	7	8
Address							

Figure 2-3

Address	1	2	3	4	5	6	7	8
1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
.....							
254	OFF	ON	ON	ON	ON	ON	ON	ON
255	ON	ON	ON	ON	ON	ON	ON	ON

Table 2-1

2.3.3.2 Baud Rate and parity Setup

It is to set baud rate and parity of the speed dome. Bit 9 and 10 are the setting bit for baud rate while bit 11 and 12 are the setting bit for parity. The label is shown in Figure 2-4, refer to Table 2-2 and Table 2-3 for baud rate setting and parity setting respectively.

1	2	3	4
Baud	Parity		

Figure 2-4

9	10	Baud Rate
OFF	OFF	9600bps
ON	OFF	4800bps
OFF	ON	2400bps
ON	ON	1200bps

Table 2-2

11	12	Parity
OFF	OFF	NONE
ON	OFF	EVEN
OFF	ON	ODD
ON	ON	NONE

Table 2-3

2.4 Terminal Matching Resistance Setup

It is the connection mode of device terminal 120Ω resistance, terminal 120Ω resistance has already existed on the power panel, and there are two connection modes, which is shown in Figure 2-5.

Connection Mode Resistance	2-3	1-2
120Ω	ON	OFF

Figure 2-5

The factory default connection mode is shown in Figure 2-6, meanwhile the jumper cap (connection board) is inserted on pin 2 and pin 3. At this moment, 120Ω resistance hasn't been connected to the device.

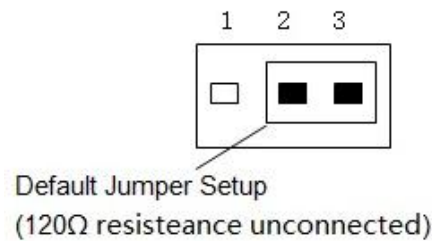


Figure 2-6

If you need to connect 120Ω resistance, please remove the jumper from the pin 2 and pin 3 and connect to pin 1 and pin 2. Now 120Ω resistance is connected to the circuit. See Figure 2-7.

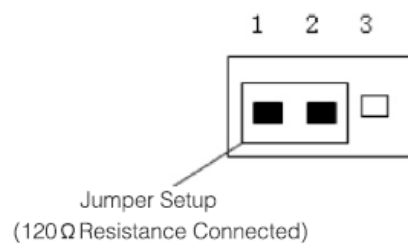


Figure 2-7

2.5 Reset Button Location & SD Card Installation

Open the rear cover of the speed dome, and you can see there is reset button and Micro SD card on the mainboard of PTZ, which is shown in Figure 2-8. Reset button is used for network system reset and Micro SD card is used for data storage.

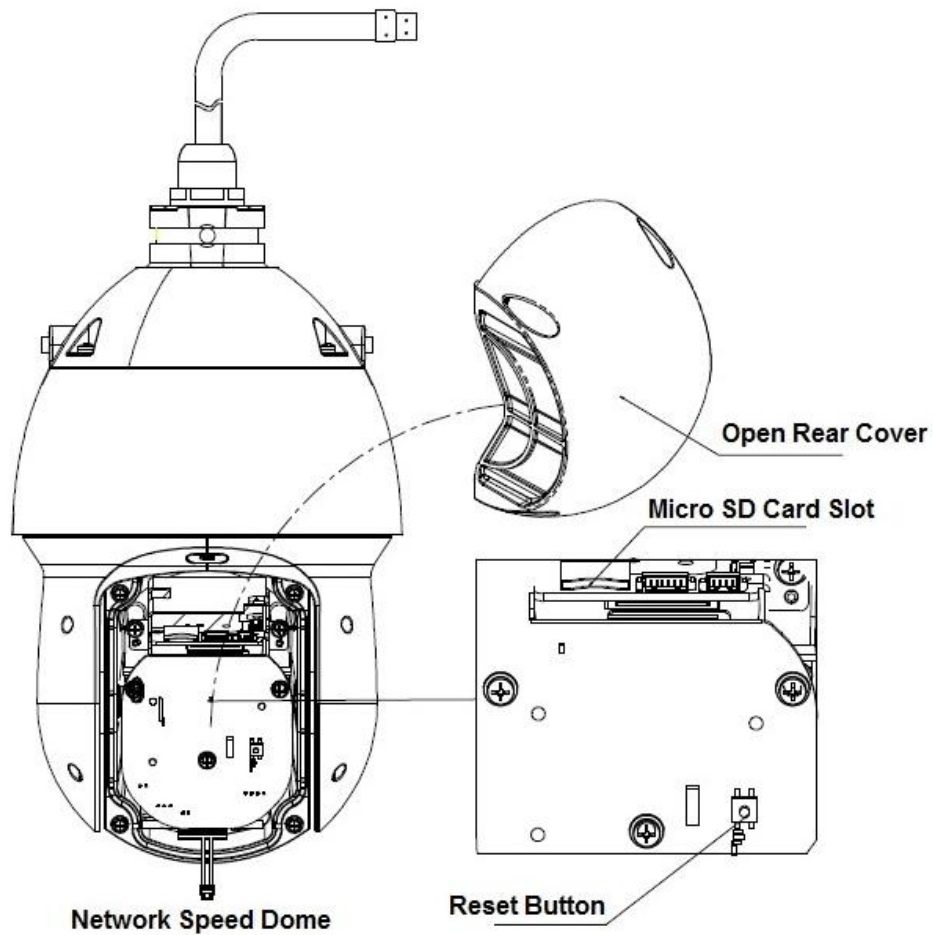


Figure 2-8

2.6 Cable Preparation

2.6.1 Speed Dome Cable Description

The camera is equipped with a multi-functional combination cable by default, which includes power cable, video cable, RS485 control cable, alarm cable, network cable, high-frequency cable and optical fiber cable etc. The cable detail is shown in Figure 2-9.

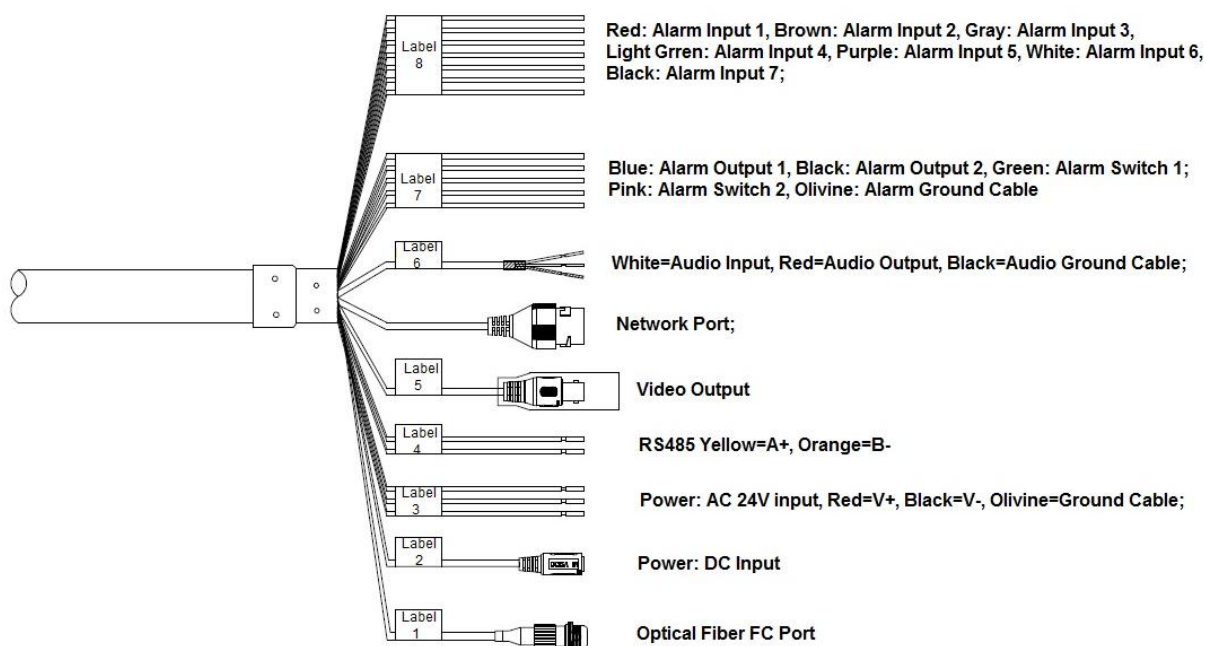


Figure 2-9

Note

Cable combination maybe different according to different models, please refer to the actual cable combination for more details. The cable combination introduced in this chapter is the most complete.

It is not allowed to lift the speed dome by dragging the cable when carrying the speed dome. The wrong way of carrying the device is shown in Figure 2-10.

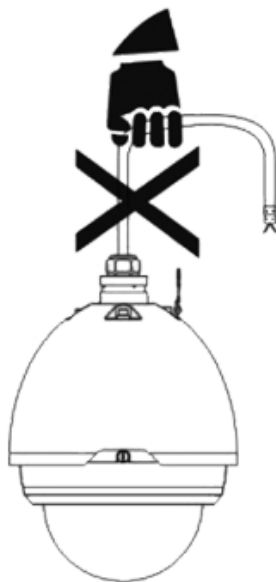


Figure 2-10

2.6.2 Cable Connection

Buckle the safety hook of speed dome on the quick installation connector, connect the integrated connection cable reserved by wall-mounted bracket to the corresponding power cable, video cable, audio cable, RS-485 control cable, alarm cable, network cable, high frequency cable and

optical fiber cable etc. of the multi-functional combination cable (according to the actual requirements), and then twine the cable connector with insulated tape to make it waterproof.

Note

- During actual installation, make sure the wire diameter of the cable which is to connect to RS485 control cable can't be too big, otherwise it will affect the control effect. Please refer to appendix II RS485 bus for relevant introduction.
- The video port is covered with the heat shrink tube of high shrinking ratio. After the video port is well connected, please heat the tube to make sure the video port is damp-proof and waterproof.

2.6.3 Alarm Cable Connection

The alarm cable connection mode and config steps are shown as follows.

Step 1

Connect alarm input device to ALARM_IN and ALARM_GND of user cable.

Step 2

Connect alarm output device to ALARM_OUT and ALARM_COM of user cable, alarm output is relay switch output.

Step 3

Open the device WEB interface, make corresponding setting for alarm input and output device in the alarm device. Alarm input of WEB is corresponding to the alarm input of the user cable. It is to set corresponding NO and NC output according to high and low level signal generated by alarm input device when there is alarm.

Step 4

It is to set alarm output of user cable on WEB.

2.6.4 Camera GND Cable Connection

Connect the power cable YELLOW/GREEN cable of combination cable to the lightning protection device, and make sure the lightning protection device is well grounded.

3 Wall-mounted Bracket Installation

3.1 Installation Component and Dimension

The appearance of wall-mounted bracket is shown in Figure 3-1, refer to Figure 3-2 for dimension. The unit is mm.

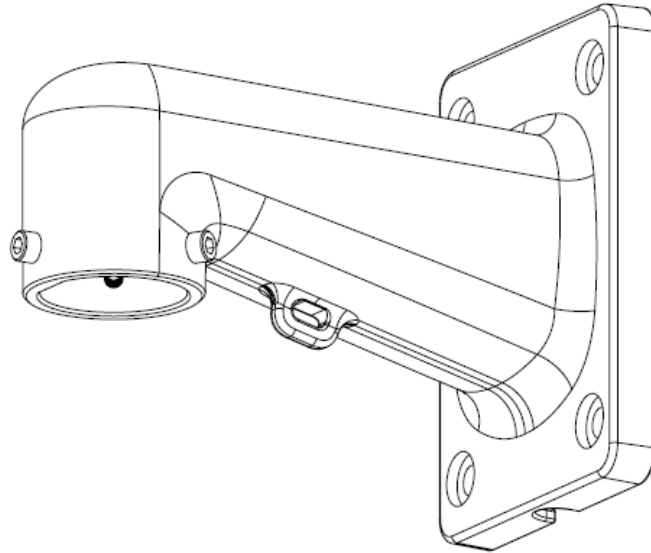


Figure 3-1

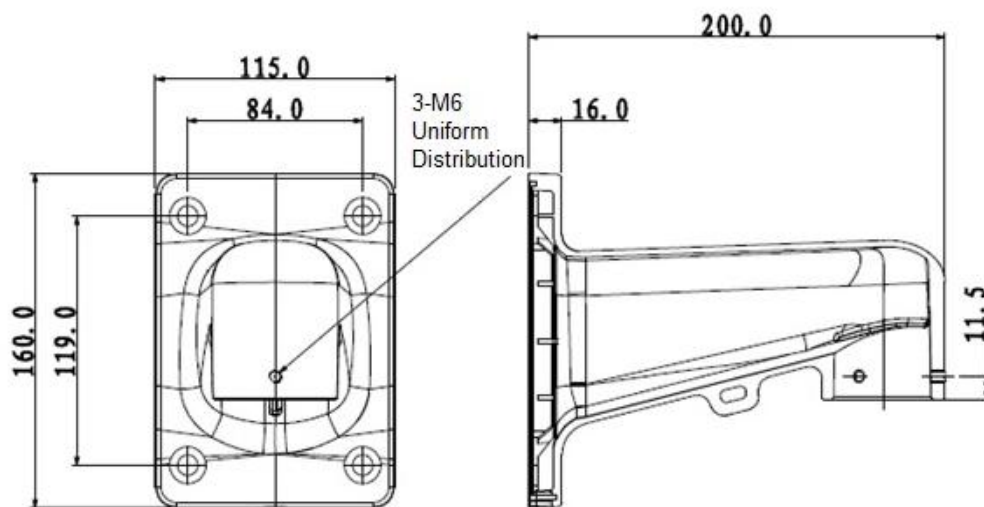


Figure 3-2

3.2 Wall-mounted Bracket Installation Step

3.2.1 Installation Conditions

Wall-mounted speed dome can be installed on hard wall structure both indoors and outdoors. The wall needs to meet the following installation conditions.

- The wall should be thick enough to install expansion bolts.
- The wall shall sustain at least 8x weight of the speed dome, bracket and so on.

3.2.2 Installation Steps

Step 1

Take the mounting holes of wall-mounted bracket bottom surface as template (align the bracket cable exit with the round hole on the wall), draw punching position on the wall and dig holes. Bury the expansion bolts into the holes you just dug (expansion bolts need to be prepared by users).

Step 2

As it is shown in Figure 3-3, after safety hook is buckled, insert the combination cable into the adapter and pull it out from the other end of the wall-mounted bracket. Align the enclosure top of speed dome with the inner hole of the adapter, and push it to the bottom, tighten the three screws on the adapter completely, otherwise it may cause the risk of speed dome falling due to improper installation.

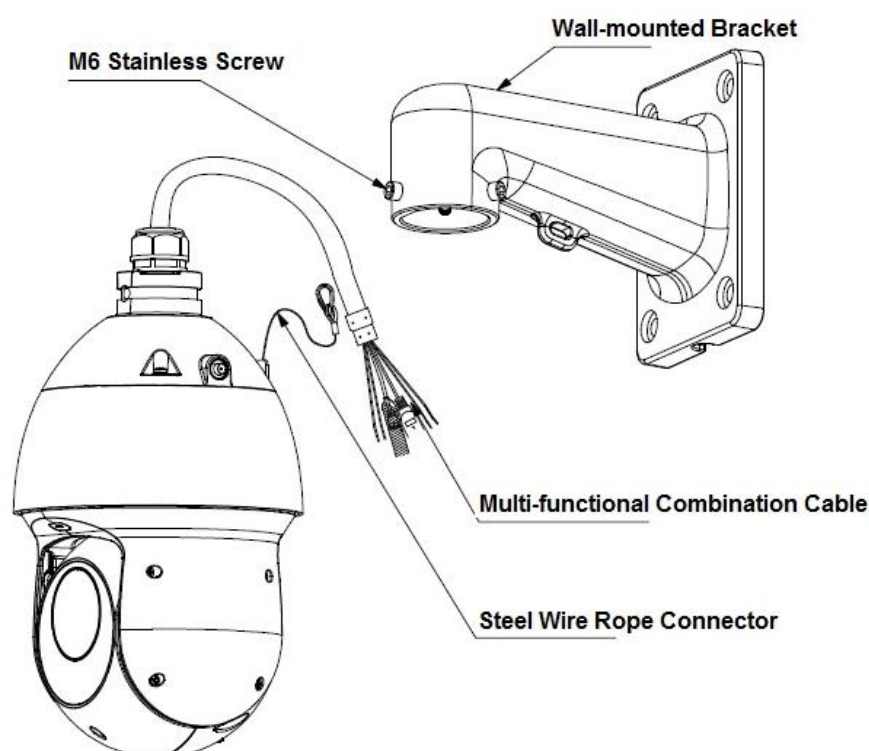


Figure 3-3

Step 3

Insert the combination cable into the wall hole after it is well connected, and then use four hex nuts and flat gasket to fix the wall-mounted bracket on the wall where expansion bolts have been buried earlier. Refer to Figure 3-4 for more details.

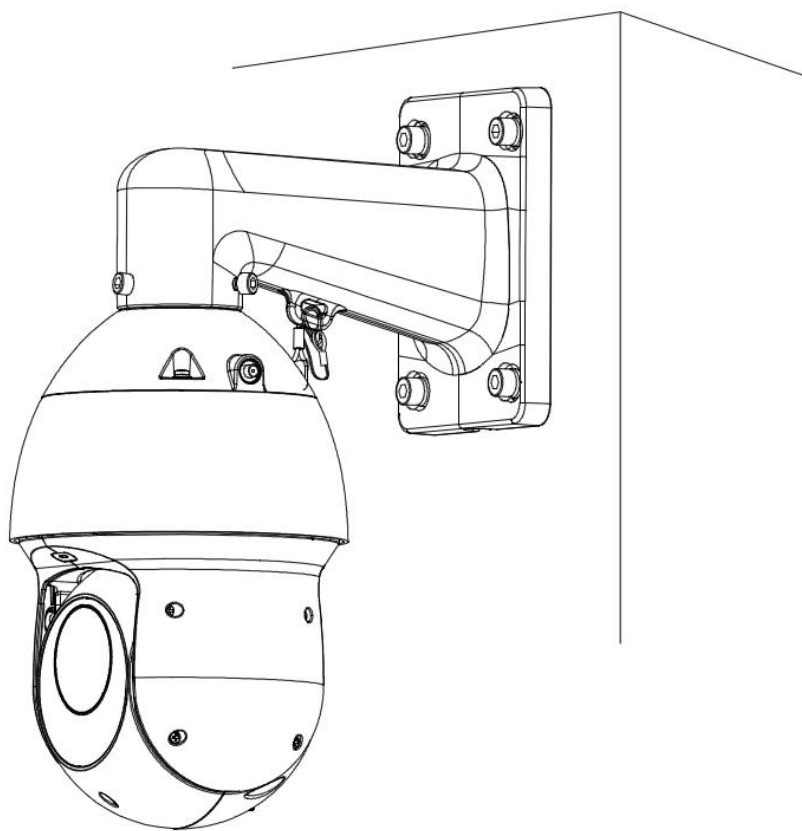


Figure 3-4

Step 4

Take out WiFi antenna from the accessory bag, align its thread with that of the screw on the enclosure and tighten it firmly, which is shown in Figure 3-5.

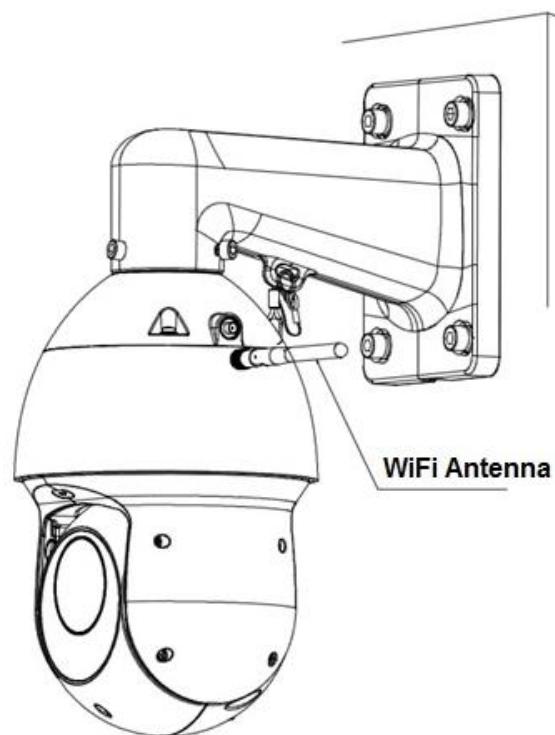


Figure 3-5

Step 5

Move the WiFi antenna upward, which is shown in Figure 3-6.

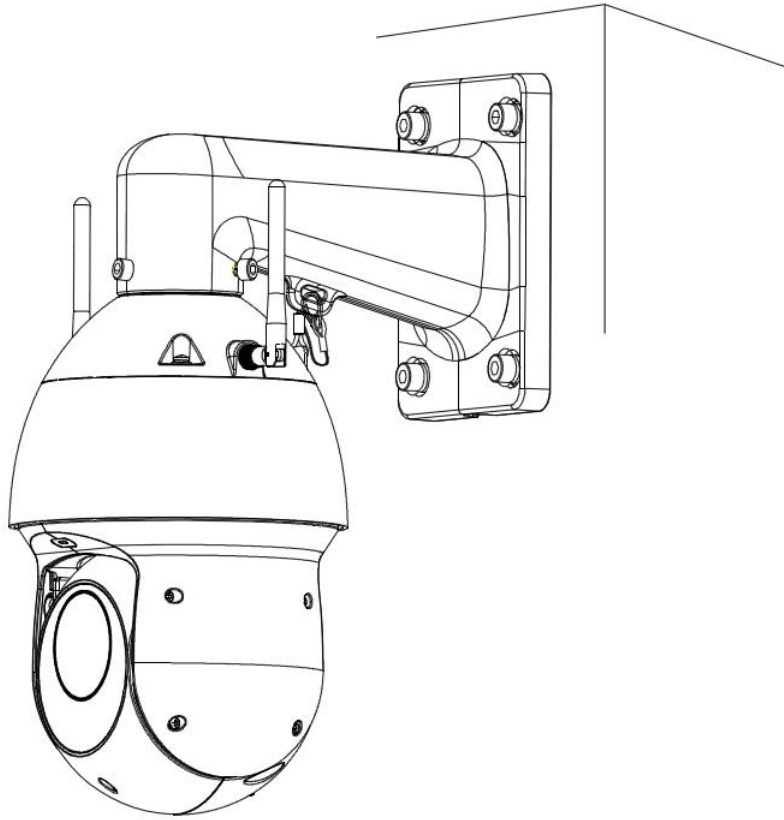


Figure 3-6

Note

WiFi function is greatly affected by environment, please refer to "Appendix V WiFi Performance Description" for detailed performance index.

4 APPENDIX I LIGHTNING AND SURGE

4.1 Outdoors

This series speed dome adopts TVS lightning protection technology. It can effectively prevent damages from various pulse signals below 6000W, such as sudden lighting and surge. While maintaining your local electrical safety code, you still need to take necessary precaution measures when installing the speed dome in the outdoor environment.

- The distance between the signal transmission cable and high-voltage device (or high-voltage cable) shall be at least 50 meters.
- Outdoor cable layout shall go under the penthouse if possible.
- For vast land, please use sealing steel tube under the land to implement cable layout and connects one point to the earth. Open floor cable layout is forbidden.
- In area of strong thunderstorm hit or near high sensitive voltage (such as near high-voltage transformer substation), you need to install additional high-power thunder protection device or lightning rod.
- The thunder protection and earth of the outdoor device and cable shall be considered in the building whole thunder protection and conform to your local national or industry standard.
- System shall adopt equal-potential wiring. The earth device shall meet anti-jamming and at the same time conforms to your local electrical safety code. The earth device shall not short circuit to N (neutral) line of high voltage power grid or mixed with other wires. When connect the system to the earth alone, the earth resistance shall not be more than $4\ \Omega$ and earth cable cross-sectional area shall be no less than $25\ \text{mm}^2$. See Figure 4-1.

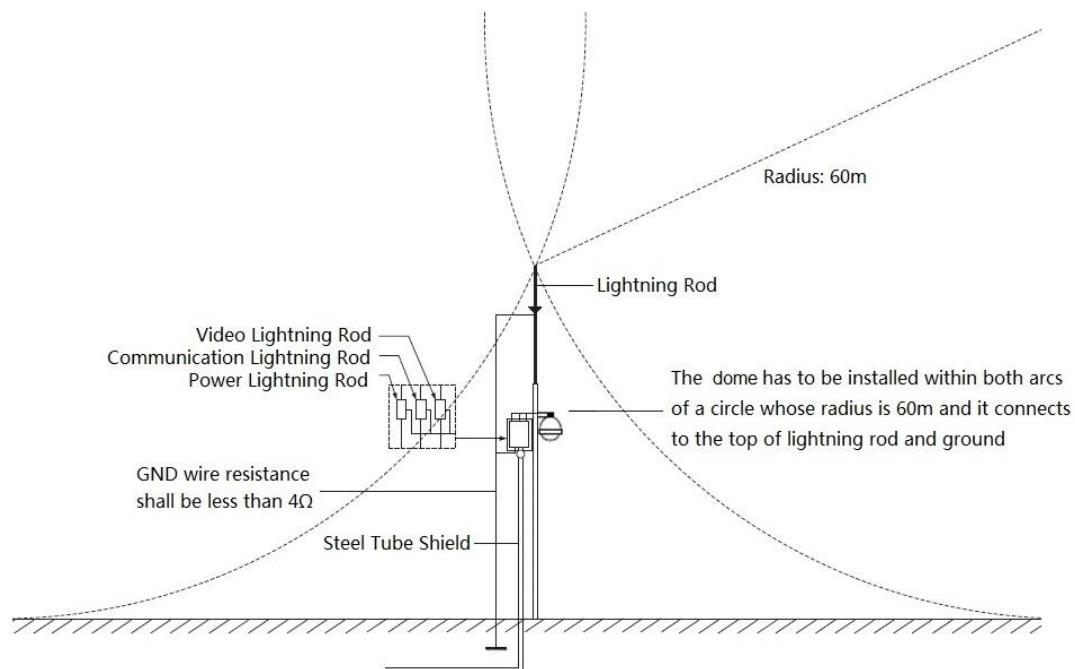


Figure 4-1

4.2 Indoors

The yellow and green GND wire or GND screw of the speed dome should be reliably connected by several strands of copper wire with no less than 25mm² and indoor equipotential GND terminal. Please refer to Figure 4-2 for lightningproof installation mode.

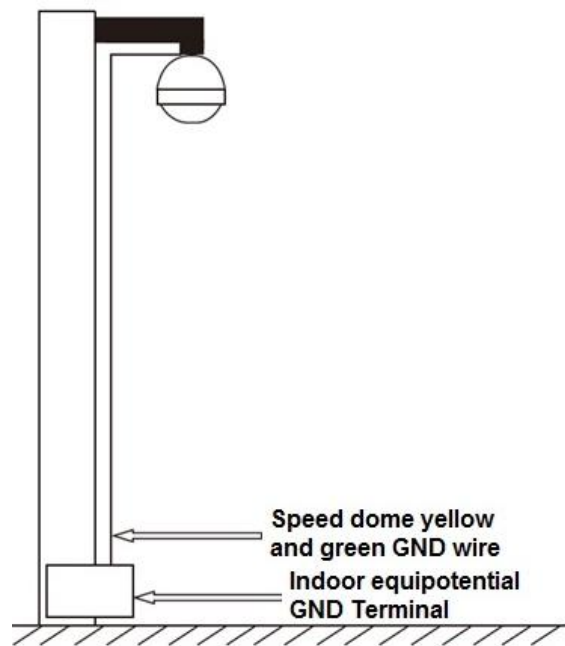


Figure 4-2

5 APPENDIX II ABOUT RS485 BUS

5.1 RS485 Bus Main Feature

RS485 is semi duplex communication cable of impedance $120\ \Omega$. Its max load amount is 32 effective loads (including main control device and devices to be charged).

5.2 RS485 Bus Transmission Distance

When we take 0.56mm (24AWG) twisted-pair as communication cable, the max transmission distance (theoretically) are listed below (according to different baud rates).

Baud Rate	Max Distance
2400 BPS	1800M
4800 BPS	1200M
9600 BPS	800M

In the following situations, the max transmission distance shall become shorter accordingly:

- The communication cable is a little bit thin;
- The surrounding environment has strong electromagnetic interference;
- There are too much devices connected to the RS485 bus;

And vice versa, the max transmission distance shall become longer.

5.3 The Problem in Practical Use

In practical usage, we usually adopt star type connection. The terminal resistance shall connect to the furthest two devices (Such as device 1# and device 15# in Figure 5-1). But this connection way does not conform to RS485 Bus standard. When the distances between devices are too long, the signal reflection occurs and anti-jamming decreases, thus the signal reliability becomes very low. You can see speed dome is not under control or speed dome is running automatically and cannot stop.

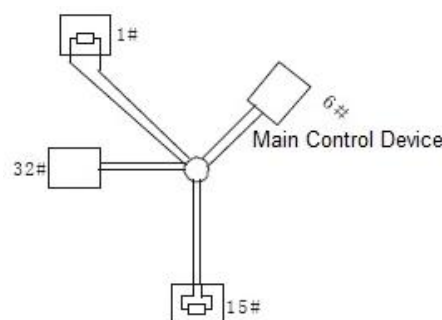


Figure 5-1

In this situation, we recommend RS485 distributor. This device can turn star type connection into the connection that conforms to RS485 bus industry standard, which can avoid the above mentioned problems and enhance communication reliability. See Figure 5-2.

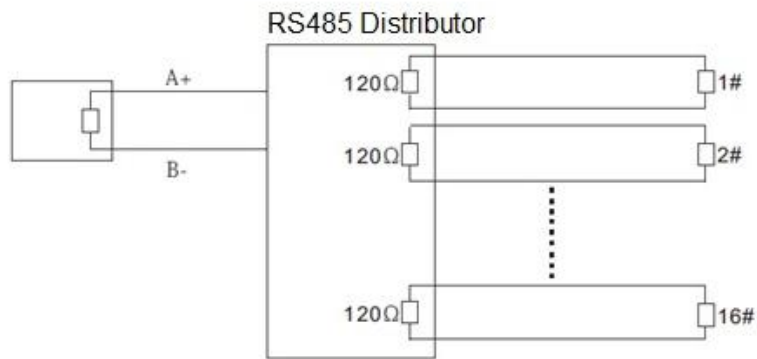


Figure 5-2

5.4 RS485 Bus FAQ

Phenomenon	Possible Reasons	Solution
Speed dome can run self-diagnosis but I cannot control it.	<ul style="list-style-type: none"> ● Host address(baud rate) and speed dome address(baud rate) are not match; ● Positive and negative end of RS485 Bus are misconnected; ● Connection cable is loose; ● RS485 Bus connection are cut off; 	<ul style="list-style-type: none"> ● Modify host or speed dome setup ; ● Switch RS485 positive end and negative end; ● Fix connection cable firmly; ● Replace RS485 Bus.
I can control the speed dome but is not smooth	<ul style="list-style-type: none"> ● RS485 Bus connection are not good; ● One RS485 bus is off; ● The distance between host and speed dome is too far; ● Parallel connected too much speed domes. 	<ul style="list-style-type: none"> ● Connect RS 485 Bus again; ● Replace RS485 Bus; ● Add terminal matching resistance; ● Add RS485 distributor.

6 APPENDIX III THE RELATIONSHIP BETWEEN AC 24V CABLE DIAMETER AND TRANSMISSION DISTANCE

The max transmission distance is recommended when the wire diameter is fixed and AC 24V voltage consumption rate is less than 10%. (For the devices with AC power supply, its max allowed voltage consumption rate is 10%. For example, a device with rated power 20W, installed 141 feet (42m) away from the transformer, the needed min wire diameter is 0.8000mm).

mm Feet (m) W	0.8000	1.000	1.250	2.000
5	488.52 (148.90)	763.31 (232.66)	1192.67 (363.53)	3053.25 (930.63)
10	244.26 (74.45)	381.66 (116.33)	596.34 (181.76)	1526.62 (465.31)
15	162.84 (49.63)	254.44 (77.55)	397.56 (121.18)	1017.75 (310.21)
20	122.13 (37.23)	190.83 (58.16)	298.17 (90.88)	763.31 (232.66)
25	97.70 (29.78)	152.66 (46.53)	238.53 (72.71)	610.65 (186.13)
30	81.42 (24.82)	127.22 (38.78)	198.78 (60.59)	508.87 (155.10)
35	69.79 (21.27)	109.04 (33.24)	170.38 (51.93)	436.18 (132.95)
40	61.06 (18.61)	95.41 (29.08)	149.08 (45.44)	381.66 (116.33)
45	54.28 (16.54)	84.81 (25.85)	132.52 (40.39)	339.25 (103.40)
50	48.85 (14.89)	76.33 (23.27)	119.27 (36.35)	305.32 (93.06)
55	44.41 (13.54)	69.39 (21.15)	108.42 (33.05)	277.57 (84.60)
60	40.71 (12.41)	63.61 (19.39)	99.39 (30.29)	254.44 (77.55)
65	37.58 (11.45)	58.72 (17.90)	91.74 (27.96)	234.87 (71.59)
70	34.89 (10.64)	54.52 (16.62)	85.19 (25.97)	218.09 (66.47)
75	32.57 (9.93)	50.89 (15.51)	79.51 (24.24)	203.55 (62.04)
80	30.53 (9.31)	47.71 (14.54)	74.54 (22.72)	190.83 (58.16)
85	28.74 (8.76)	44.90 (13.69)	70.16 (21.38)	179.60 (54.74)
90	27.14 (8.27)	42.41 (12.93)	66.26 (20.20)	169.62 (51.70)
95	25.71 (7.84)	40.17 (12.25)	62.77 (19.13)	160.70 (48.98)
100	24.43 (7.45)	38.17 (11.63)	59.63 (18.18)	152.66 (46.53)

7 APPENDIX IV THE RELATIONSHIP BETWEEN DC 12V CABLE DIAMETER AND TRANSMISSION DISTANCE

The max transmission distance is recommended when the cable diameter is fixed and the DC 12V voltage consumption rate is below 10%. For the DC power supply devices, the max permitted voltage power consumption rate is 10%. The cable listed in the table below is copper

wire (the resistivity of copper is $\rho = 0.0175 \Omega \cdot \text{mm}^2/\text{m}$)

Feet (m) \ W \ mm	0.8000	1.000	1.250	2.000
5	122.13 (37.23)	190.83 (58.16)	298.17 (90.88)	763.31 (232.66)
10	61.06 (18.61)	95.41 (29.08)	149.08 (45.44)	381.66 (116.33)
15	40.71 (12.41)	63.61 (19.39)	99.39 (30.29)	254.44 (77.55)
20	30.53 (9.31)	47.71 (14.54)	74.54 (22.72)	190.83 (58.16)
25	24.43 (7.45)	38.17 (11.63)	59.63 (18.18)	152.66 (46.53)
30	20.35 (6.20)	31.80 (9.69)	49.69 (15.15)	127.22 (38.78)
35	17.45 (5.32)	27.26 (8.31)	42.60 (12.98)	109.04 (33.24)
40	15.27 (4.65)	23.85 (7.27)	37.27 (11.36)	95.41 (29.08)
45	13.57 (4.14)	21.20 (6.46)	33.13 (10.10)	84.81 (28.85)
50	12.21 (3.72)	19.08 (5.82)	29.82 (9.09)	76.33 (23.27)
55	11.10 (3.38)	17.35 (5.29)	27.11 (8.26)	69.39 (21.15)
60	10.18 (3.10)	15.90 (4.85)	24.85 (7.57)	63.61 (19.39)
65	9.39 (2.86)	14.68 (4.47)	22.94 (6.99)	58.72 (17.90)
70	8.72 (2.66)	13.63 (4.15)	21.30 (6.49)	54.52 (16.62)
75	8.14 (2.48)	12.72 (3.88)	19.88 (6.06)	50.89 (15.51)
80	7.63 (2.33)	11.93 (3.64)	18.64 (5.68)	47.71 (14.54)
85	7.18 (2.19)	11.23 (3.42)	17.54 (5.35)	44.90 (13.69)
90	6.78 (2.07)	10.60 (3.23)	16.56 (5.05)	42.41 (12.93)
95	6.43 (1.96)	10.04 (3.06)	15.69 (4.78)	40.17 (12.25)
100	6.11 (1.86)	9.54 (2.91)	14.91 (4.54)	38.17 (11.63)

8 APPENDIX V WiFi Performance Description

Please refer to Table 8-1 for the WiFi performance index.

Frequency band supported	2.4G, 5G frequency band	
Working channel (Corresponding with AP end)	2.4G	CH1~CH13 (based on local actual channel)
	5G	Based on local actual channel
Transmission performance	<ul style="list-style-type: none">• In the open environment without disturbance, the device is installed at a height of more than 1.5m from the horizon, the valid communication distance is 100m.• It can penetrate a load bearing wall in the environment without disturbance, valid communication distance is 20m. Note The actual penetration capacity is greatly affected by network layout and local environment.	

Table 8-1

9 APPENDIX VI WIRE GAUGE REFERENCE SHEET

Metric bare wire diameter (mm)	AWG	SWG	Bare wire cross section (mm ²)
0.050	43	47	0.00196
0.060	42	46	0.00283
0.070	41	45	0.00385
0.080	40	44	0.00503
0.090	39	43	0.00636
0.100	38	42	0.00785
0.110	37	41	0.00950
0.130	36	39	0.01327
0.140	35	/	0.01539
0.160	34	37	0.02011
0.180	33	/	0.02545
0.200	32	35	0.03142
0.230	31	/	0.04115
0.250	30	33	0.04909
0.290	29	31	0.06605
0.330	28	30	0.08553
0.350	27	29	0.09621
0.400	26	28	0.1257
0.450	25	/	0.1602
0.560	24	24	0.2463
0.600	23	23	0.2827
0.710	22	22	0.3958
0.750	21	/	0.4417
0.800	20	21	0.5027
0.900	19	20	0.6362
1.000	18	19	0.7854
1.250	16	18	1.2266
1.500	15	/	1.7663
2.000	12	14	3.1420
2.500	/	/	4.9080
3.000	/	/	7.0683

Note

- This manual is for reference only. Slight difference may be found in the user interface.
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- If there is any uncertainty or controversy, please refer to the final explanation of us.
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