PROGETTO DEFINITIVO/ESECUTIVO

"ITRI SICURA"
Realizzazione di una rete di videosorveglianza cittadina

OGGETTO: **SCHEDE TECNICHE**

COMMITTENTE: **COMUNE DI ITRI** P.Iva: 00279170591, Cod.Fisc.: 81003170594
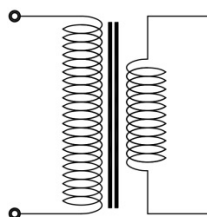Piazza Umberto I, n. 1 – 04020 ITRI (LT).

DATA: 21 SETTEMBRE 2020

ELABORATO: **DOC. Q**

PROFESSIONISTA: **DOTT. ING. ARCANGELO IALONGO**

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DH-PFM880/881

5.8G Wireless video transmission device

DH-PFM880

DH-PFM881

Features

- Support outdoor temperature：-30℃~70℃,industrial design.
- Wireless coverage recommended range≤3km, max 5km
- Radio-frequency mouth anti-thunder reaches 15KV ESD
- Support auto ranging function, real time display straight line distance between client and base station.
- Support device auto reboot function
- 5G mode support 4920~6100Mhz

DH-PFM880/881

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 16dBi	Built-in antenna：gain 15dBi
	Equivalent Output Power	+27dBm(@MCS0,11n)	＋23dBm(@MCS0,11n)
	Receiving Sensitivity	-74dBm @ 65Mbps, -96dBm@1Mpbs	
	Optimal Transmission Distance	0-3KM	0-5KM
	Working Frequency Band	5470-5825 MHz	
	Wireless Authentication	SRRC	
	Wireless Direction Angle	Horizontal 90°，vertical 12°	Horizontal 40°， vertical 15°
	Transmission Rate	11n:13.5/15/27/30/40.5/45/54/60/81/90/108/120/121.5/135/150/162/180/216/240/270/300Mbps (40+MHz Channel width)	
		11n： 130/117/104/78/65/58.5/52/39/26/19.5/13/6.5Mbps (20+MHz Channel width)	
		11a：54/48/36/24/18/12/9/6Mbps(self-adaption)	
Hardware	Power Module Port	1*POE RJ45(IN: 220V, OUT: 24V/0.5A)、1*LAN RJ45	
	Power Consumption	MAX 10W	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℃	
	Storage Temperature	-30℃～+80℃	
	Working Humidity	5%～95%RH(no condensation)	
	Equipment Dimension(mm)	265×265×66mm	270×83×50mm
	Antenna Dimension(mm)	450×140×50 mm	N/A

DH-PFM880/881

	Equipment Weight	2.1Kg	0.4Kg
	Antenna Weight	0.8Kg	N/A
	Protection Level	IP66	N/A
	Mast Diameter	40mm~60mm	
Software	Encryption Way	WEP/WPA-PSK/WPA2/CCMP(AES)/TKIP	
	Network Mode	Route/Network 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	
	Long-Distance Communication Throughput Rate	≤40Mbps@3km	≤30Mbps@5km
	Bandwidth Flexible Configuration	5M/10M/20M/40MHz	

DH-PFM880/881

Networking Mode

Point-to-Point Networking

For point-to-point communication, generally a DH-PFM880（or DH-PFM881）is set as access point, and the other DH-PFM881 is set as client, see Figure1-1 for more information.
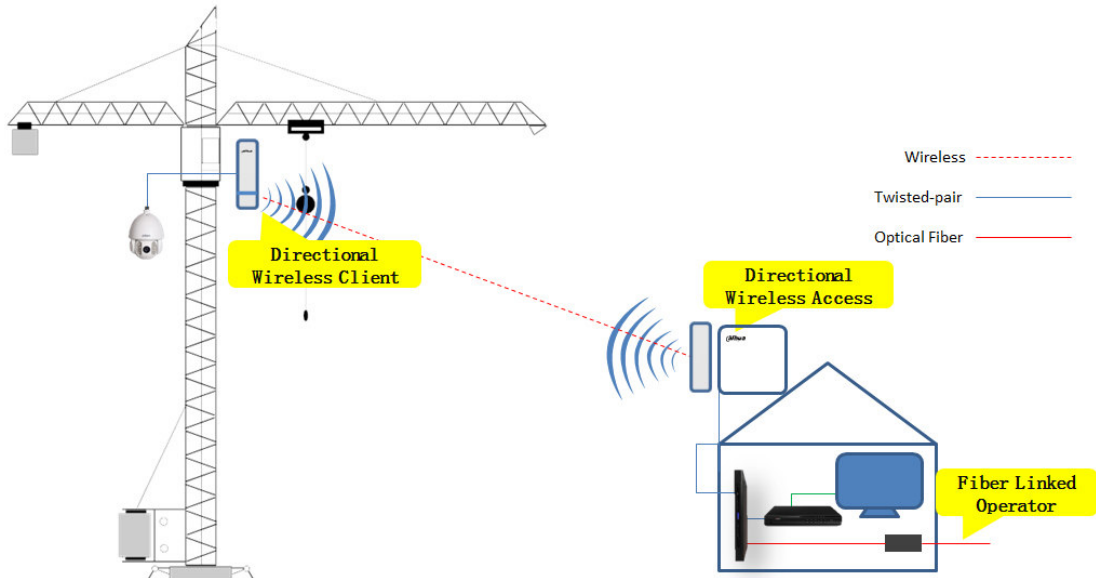

Figure 1-1

Point-to-Multipoint Networking

For point-to-multipoint communication, generally adopt device DH-PFM880 as server, and it is set as access point (different "frequency/channel" should be set when there are several access points in order to prevent interference), DH-PFM881（or DH-PFM880）device is set as client, see Figure 1-2 for more information.
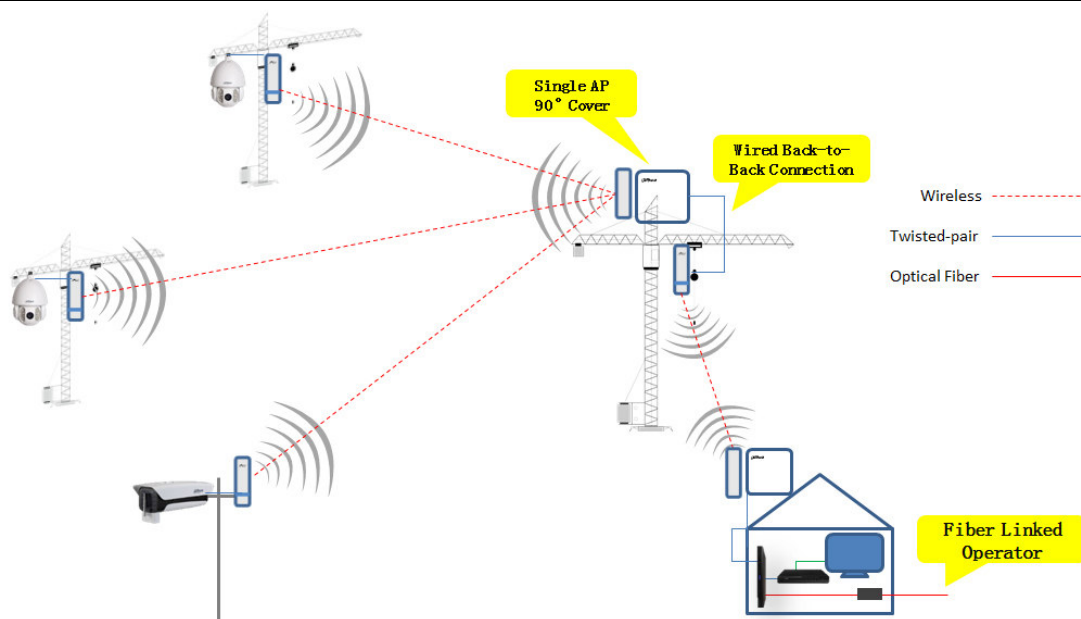
Figure 1-2

Back-to-Back Angle Adjustment Network

For wireless coverage blind angle, cable connection for double devices is recommended, which can solve the problem of angle by adjusting two directions respectively; the back-to-back connection for double devices can also be applied to long-distance repeater, see Figure 1-3 for more information.
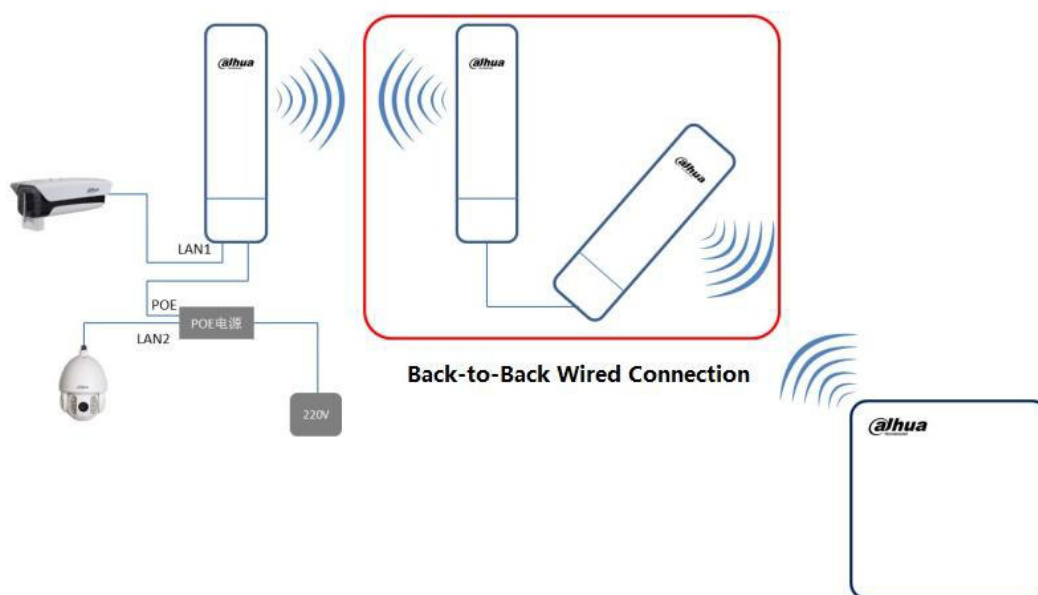

Figure 1-3

DH-PFM880/881

Integrated Wireless Coverage Networking

In the actual project, we may use point-to-point, point-to-multipoint, repeater between point-to-point, direction adjustment and several other ways of integrated application at the same. The following Figure 1-4 can show you how to achieve the final demand.
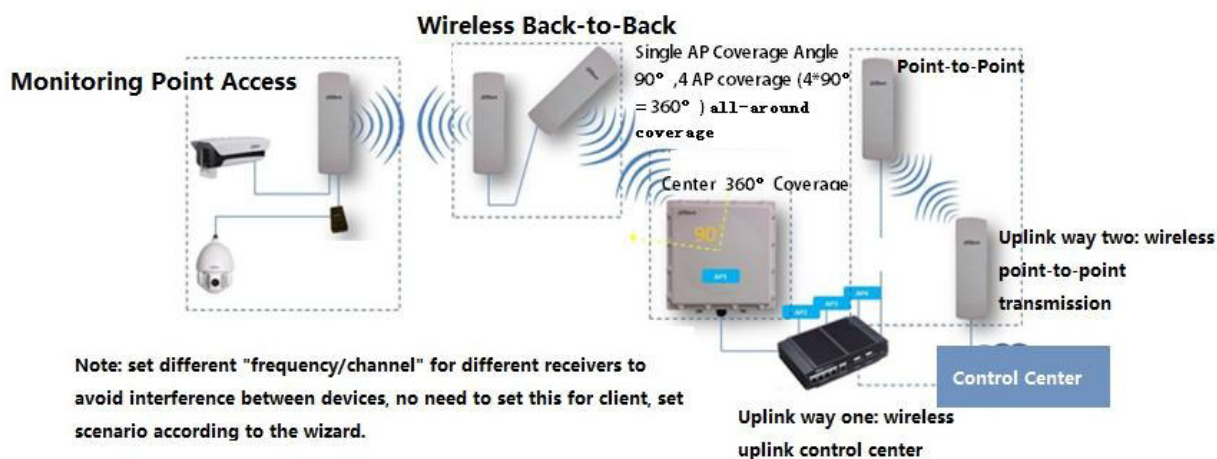

Figure 1-4

Application Scenarios

1. Safe towns, safe construction sites, safe scenic area

2. Playground, ranch, uptown crossroad and other no blocking scenarios.

DH-PFM881

Outdoor 5G Wireless video transmission device (CPE)

Features

- Support outdoor temperature：-30℃~70℃, industrial design;
- Wireless coverage recommended range≤3km;
- Radio-frequency mouth anti-thunder reaches 15KV ESD;
- Support auto ranging function, real time display straight line distance between client and base station;
- Support device auto reboot function;
- 5G mode support 5745~5825MHz(extended range: 4920~6100MHz);
- Support flow control, effectively control base station/client input/output flow control;
- Support VLAN partition, realize virtual local network function, control broadcast storm
- Support 802.1x authentication method, effectively guarantee client access control, provide access safety.
- Support client priority setting, better dispatch each client when the mode is point-to-multipoint
- Support multiple channel option (5M/10M/20M/40M), effectively improve anti-interference and penetration capability

DH-PFM881

Specifications

Model	DH-PFM881
Wireless Features	
Wireless Standard	IEEE802.11 a/n
Working Frequency	5745~5825MHz(extended range: 4920~6100MHz)
Wireless Speed	300Mbps
Modulation Mode	OFDM
Antenna	Built-in antenna: gain 15dBi
Output Power	27dBm (max)
Receiving Sensitivity	-74dBm@65Mbps, -96dBm@1Mbps
Transmission Distance	0-3KM
Wireless Direction Angle	Horizontal 40°, vertical 15°
Hardware	
Power	1*PoE RJ45(IN: 220V, OUT: 24V/0.5A);
Power Consumption	Max. 8W
Ethernet Port	1*LAN RJ45 + 1*LAN RJ45 from passive PoE adapter
Indicator Light	Wi-Fi status indicator light / LAN port indicator light / Power indicator light / Signal intensity indicator light
Working Temperature	-30℃～+70℃
Storage Temperature	-30℃～+80℃
Working Humidity	5%～95%RH(no condensation)
Equipment Dimension	280mmx30mmx80mm
Equipment Weight	0.45Kg
Mast Diameter	40mm~60mm
Software	
Encryption Type	WEP/WPA-PSK/WPA2/CCMP(AES)/TKIP
Network Mode	Route/Network Bridge
Working Mode	Access Point/Client/WDS AP/WDS client/WDS Repeater
Security Mechanism	IP/MAC address filtering, hide network name, 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
Long-Distance Communication Throughput Rate	≤40Mbps@3km
Bandwidth Flexible	5M/10M/20M/40MHz

DH-PFM881

Configuration	

Dimensions (mm)
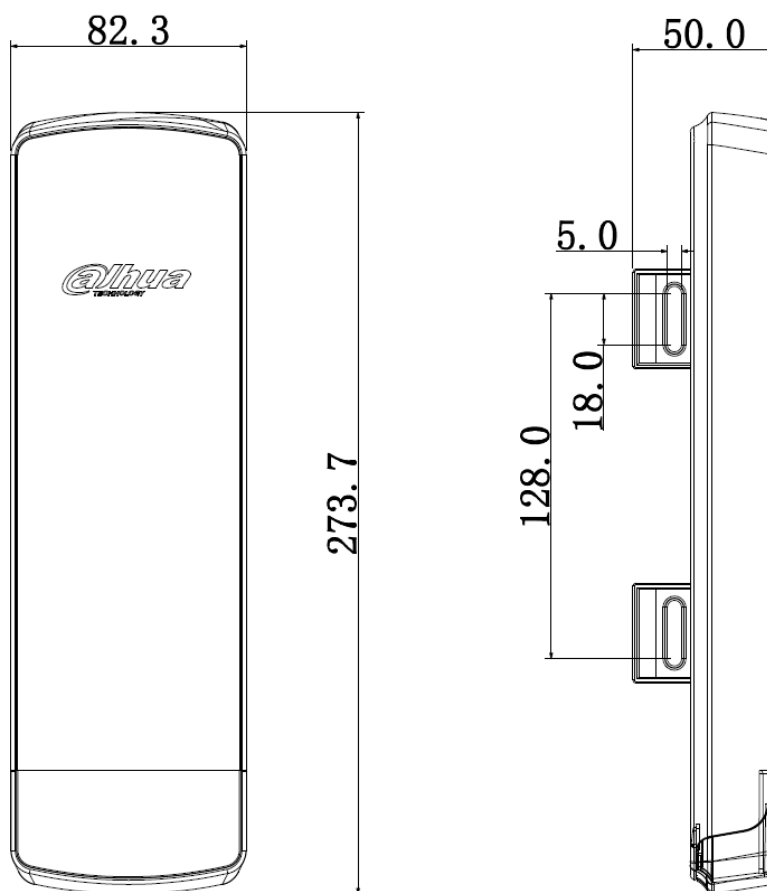
Application Scenarios

1. Safe towns, safe construction sites, safe scenic area and wireless HD video monitoring of the bus stations, etc.;

2. Playground, ranch, uptown crossroad, orchard, park and other no blocking scenarios.

Networking Mode

1. Point-to-Point Networking

For point-to-point communication, generally a DH-PFM880（or DH-PFM881）is set as access point, and the other DH-PFM881 is set as client, as demonstrated below.
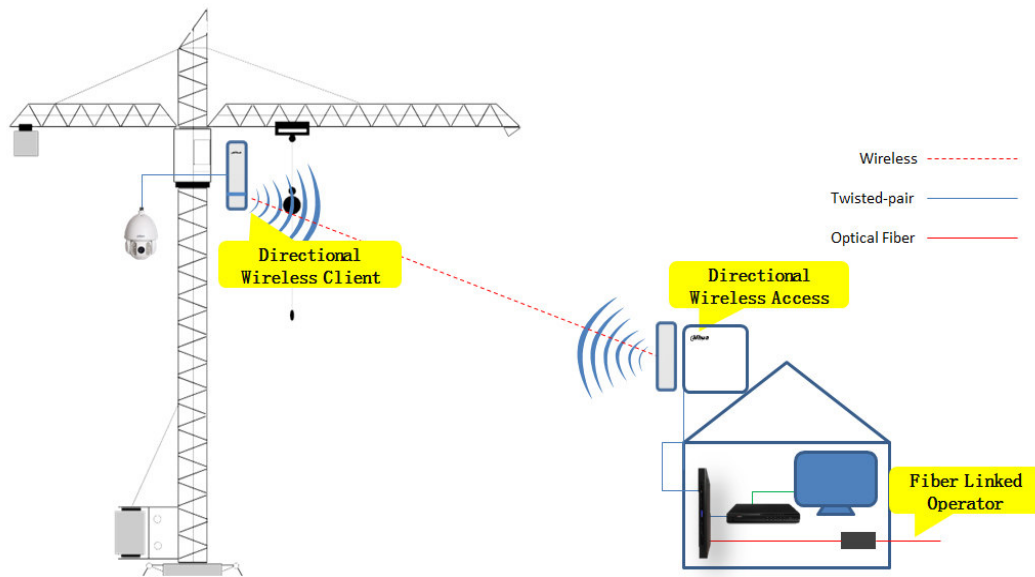
2. Point-to-Multipoint Networking

For point-to-multipoint communication, generally adopt DH-PFM880 as server, and it is set as access point (different "frequency/channel" should be set when there are several access points in order to prevent interference), DH-PFM881 (or DH-PFM880) is set as client, as demonstrated below.
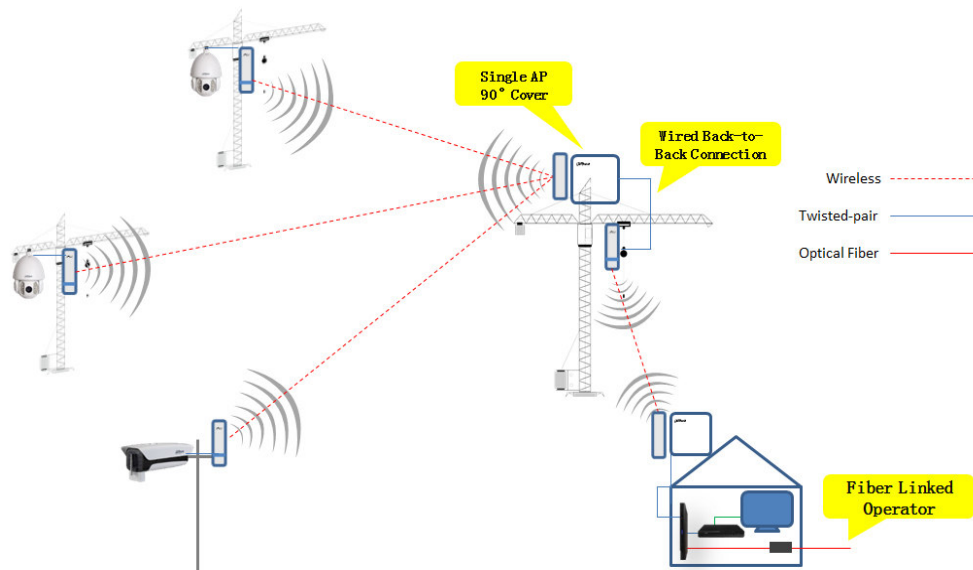
3. Back-to-Back Angle Adjustment Network

For wireless coverage blind angle, cable connection for double devices is recommended, which can solve the problem of angle by adjusting two directions respectively; the back-to-back connection for double devices can also be applied to

long-distance repeater, as demonstrated below.

Back-to-Back Wired Connection
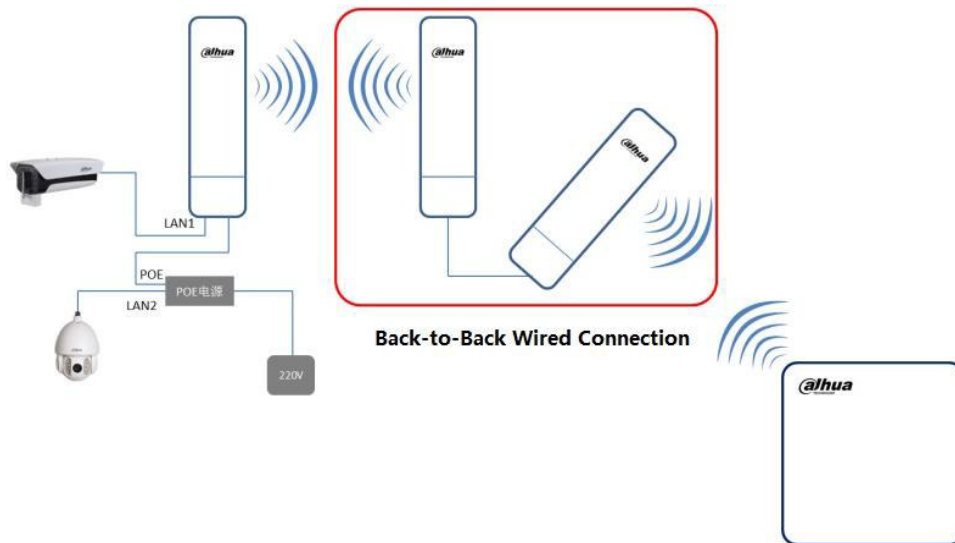
4. Integrated Wireless Coverage Networking

In the actual project, we may use point-to-point, point-to-multipoint, repeater between point-to-point, direction adjustment and several other ways of integrated application at the same, as demonstrated below.

Note: set different "frequency/channel" for different receivers to avoid interference between devices, no need to set this for client, set scenario according to the wizard.

Connection Mode

DH-PFM881
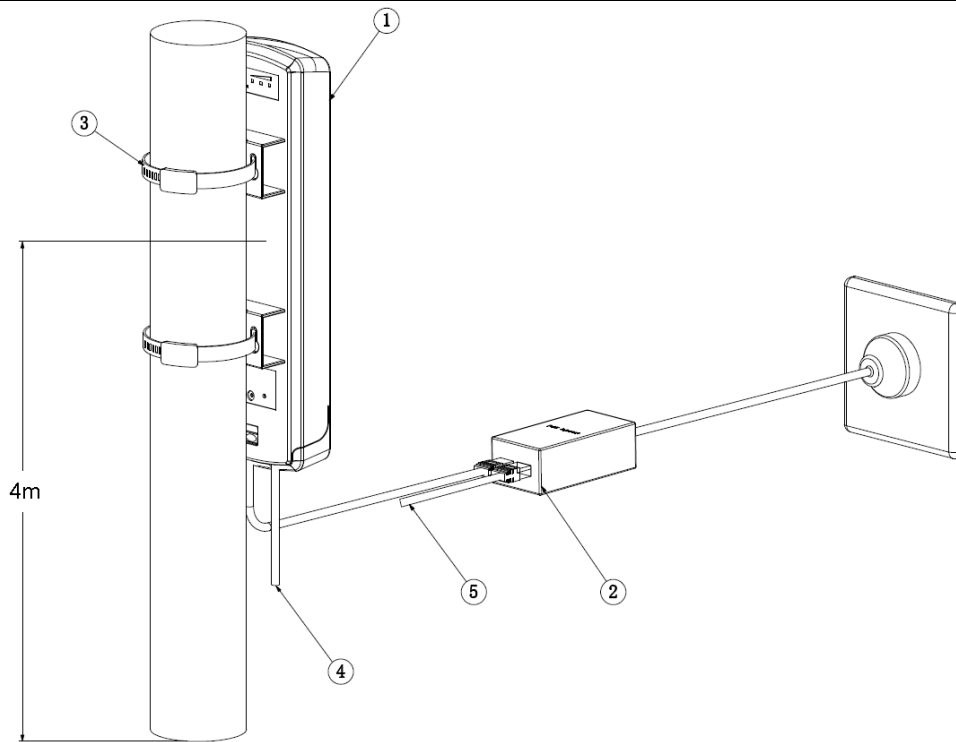
1. DH-PFM881 equipment
2. PoE power supply
3. Metal hoops for installing the equipment
4. Network interface of DH-PFM881. Used for connecting the cameras
5. Network interface of PoE power supply. Used for connecting PC/camera

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

*Design and specifications are subject to change without notice.

DH-PFM886-10

Outdoor 5G Wireless video transmission device (Backhaul)

Features

- Support outdoor temperature: -30℃~70℃, industrial design;
- Use the high-performance 802.11ac MIMO chip, and the highest rate can achieve 867Mbps;
- Support proprietary protocol TDMA; when the wireless devices open TDMA, other manufacturers will not be able to link them which ensure the system safety;
- PoE power supply, which supports international standard 802.3at and lets power supply be convenient and reliable;
- Support double firmware redundancy backup and make the maintenance operation be more safe and reliable;
- Support auto ranging function, real time display straight line distance between client and base station;
- Support device auto reboot function;
- Working frequency support 5745~5825MHz(extended range: 4920~6100MHz);
- Support flow control, effectively control base station/client input/output flow control;
- Support VLAN partition, realize virtual local network function, control broadcast storm;
- Support Web page and AC remote operations management and make the installation and maintenance be more convenient;

DH-PFM886-10

- Support SNMP v1/v2c/v3 network management protocol, adapt to all kinds of general network management platform, and make the equipment management be more convenient;
- Support multiple channel option (5M/10M/20M/40M), effectively improve anti-interference and penetration capability;
- Built-in professional lightning protection technology, which supports 6 kV port lightning protection ability to ensure that the poor working environment adaptability of outdoor and greatly reducing rate of lightning damage to equipment.

Specifications

Model	DH-PFM886-10
Wireless Features	
Wireless Standard	IEEE802.11 a/n/ac
Working Frequency	5745~5825MHz(support frequency to extend, extended range: 4920~6100MHz)
Wireless Speed	867Mbps
Modulation Mode	OFDM
Antenna	Internal antenna: gain 25dBi
Output Power	27dBm (max)
Receiving Sensitivity	11a: -91dBm@ 6Mbps 11n: -74dBm@MCS7 11ac: -67dBm@MCS9
Transmission Distance	0-10Km
Wireless Direction Angle	Horizontal 11°, vertical 11°
Hardware	
Power	1*PoE RJ45(IN: 220V, OUT: 48V/0.5A)
Power Consumption	Max. 15W
Ethernet Port	1*LAN RJ45(1Gbps)
Working Temperature	-30℃~+70℃
Storage Temperature	-40℃~+80℃
Working Humidity	5%~95%RH(no condensation)
Equipment Dimension	372mm×372mm×95mm
Equipment Weight	2.8Kg
Protection Level	IP66
Software	
Encryption Type	WPA-PSK/WPA2/CCMP(AES)/TKIP
Network Mode	Route/Network Bridge
Working Mode	Access Point/Client/WDS AP/WDS client
Security Mechanism	IP/MAC address filtering, hide network name and etc.
Network Protocol	TCP/UDP/ARP/ICMP/DHCP/HTTP/NTP

DH-PFM886-10

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, Syslog, Telnet, AC, SNMP
Webpage Configuration Management	Support webpage configuration, AC remote management and SNMP management
Firmware Update	Support Firmware webpage update and AC remote upgrade
Bandwidth Flexible Configuration	10/20/40/80MHz

Dimension (mm)
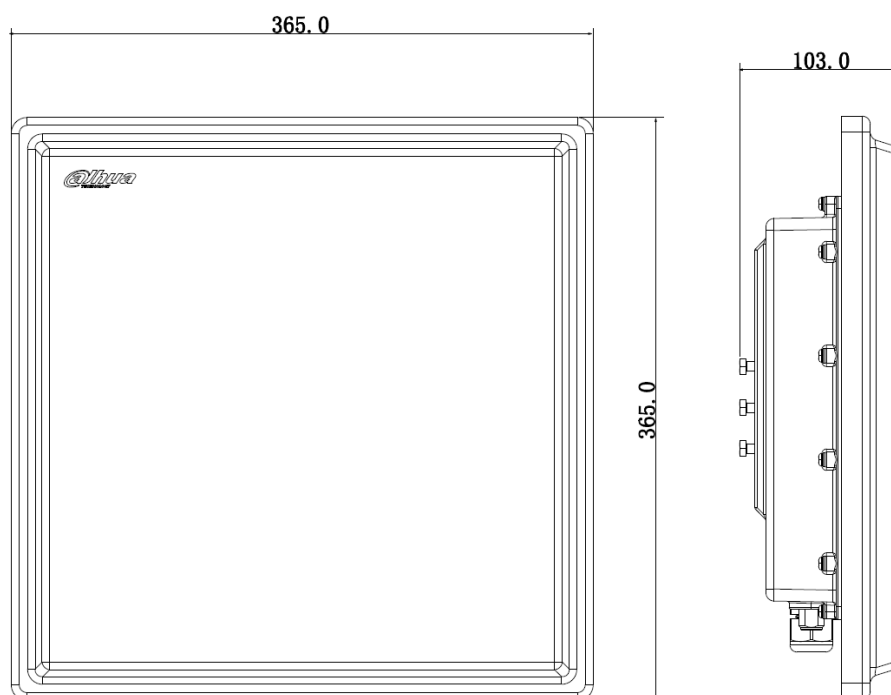
Application Scenarios

1. The wireless HD video monitoring for Forest fire prevention, oil field, natural gas

DH-PFM886-10

pipeline, electric power, water conservancy peaceful villages and towns, etc.

2. Basin, scenic spot, pastures, the crossroads of the outskirts, orchards and other no blocking scenarios.

Networking Mode

For point-to-point communication, generally adopt one device DH-PFM886-10 as a server, and it is set as access point, the other one DH-PFM886-10 device is set as client, as demonstrated below.
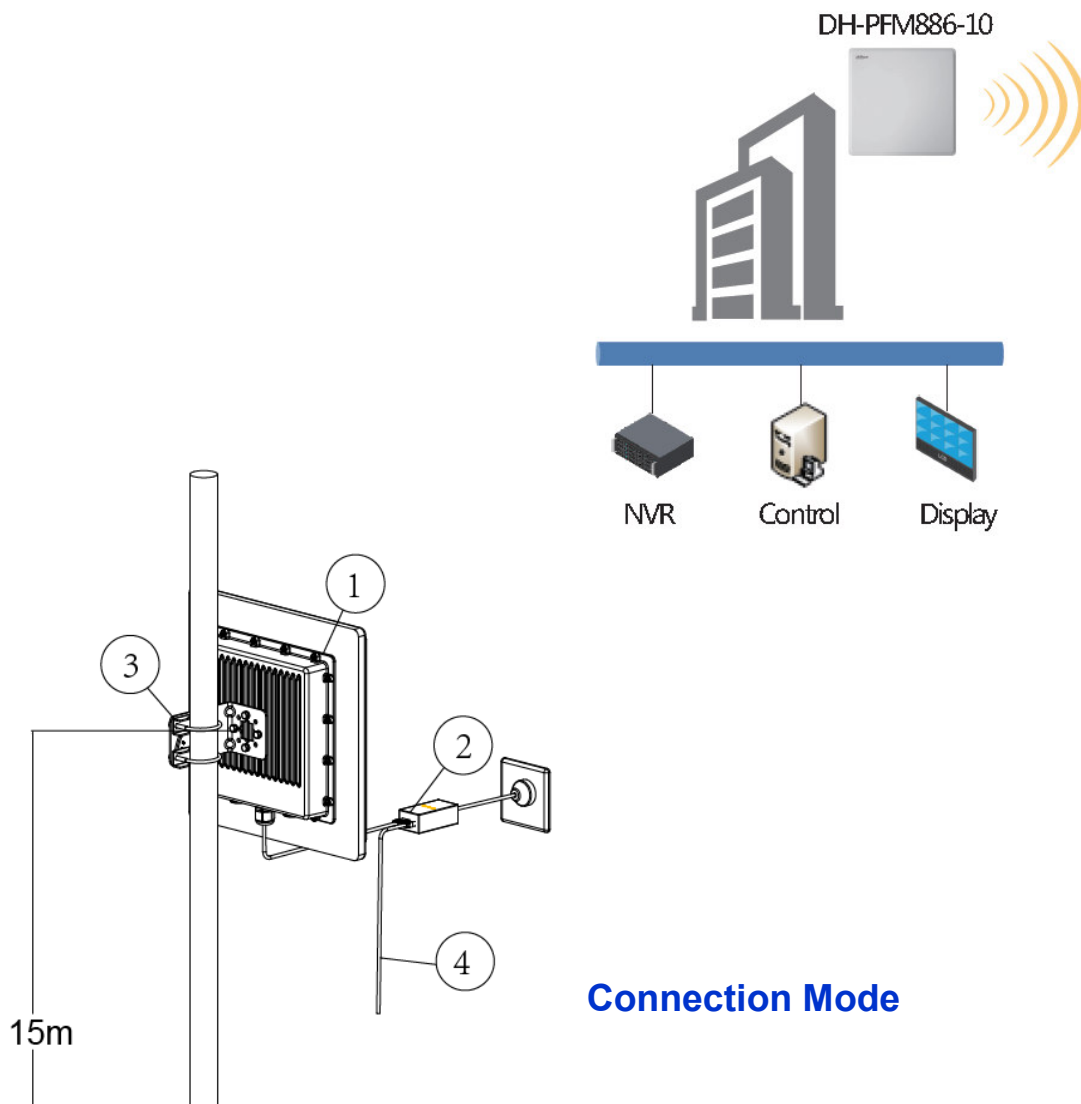
Connection Mode

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.

Note:

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

*Design and specifications are subject to change without notice.

Dahua TECHNOLOGY

DH-IPC-HFW5431E-ZE

4MP WDR IR Bullet Network Camera

· 1/3" 4Megapixel progressive scan CMOS
· H.265&H.264 triple-stream encoding
· 25/30fps@4Mp(2688×1520)
· Smart Detection supported
· WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC
· Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
· 2.7mm ~13.5mm motorized lens
· 2/1 Alarm in/out, 1/1 audio in/out
· Max. IR LEDs Length 50m
· Micro SD memory, IP67, IK10, PoE

4Mp | H.265 | WDR | Temperature | IP67 | Vandal-proof

ePoE

System Overview

With upgraded H.265 encoding technology, Eco-savvy series brings high efficient video compression capability. It can save bandwidth and storage. Meanwhile, the series features starlight, smart IR technology and intelligent image analysis techniques. This series supports reminder function, meanwhile fully protected from dust and water, certified to IP67 and vandal resistant to IK10 standard.

Functions

ePoE technology

The ePoE technology of Dahua, designed internally, adopts advanced 2D-PAM3 coding modulation from physical layer, and realizes full duplex transmission over 800 meters at the speed of 10Mbps, or 300 meters at the speed of 100Mbps via Cat 5 or coaxial cable media. Besides, it supports PoE and PoC power supply technology which has greatly simplified construction and wiring. Dahua ePoE technology offer a new way to accomplish long distance transmission between IP camera and network switch. It allows more flexible surveillance system design, improves reliability and saves construction and wiring cost.

Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, true WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Intelligent Video System (IVS)

IVS is a built-in video analytic algorithm that delivers intelligent functions to monitor a scene for Tripwire violations, intrusion detection, and abandoned or missing objects. A camera with IVS quickly and accurately responds to monitoring events in a specific area. In addition to scene

analytics, the camera supports face detection to quickly capture a face and upload the image to a server. The camera also offers tamper detection by recognizing a dramatic scene change and generating a warning message to inspect the camera.

Protection(IP67, IK10, wide voltage)

The camera allows for ±30% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning. Subjected and certified to rigorous dust and immersion tests (IP67) and impact tests (IK10), the camera is the choice for installation in even the most unforgiving environments.

Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

Onvif PSIA

Eco Savvy 3.0 | DH-IPC-HFW5431E-ZE

Technical Specification

Camera

Image Sensor	1/3" 4Megapixel progressive scan CMOS
Effective Pixels	2688(H) x 1520(V)
RAM/ROM	512MB/32MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3~1/100000s
Minimum Illumination	0.03Lux/F1.4 (Color,1/3s,30IRE) 0.3Lux/F1.4 (Color,1/30s,30IRE) 0Lux/F1.4(IR on)
S/N Ratio	More than 50dB
IR Distance	Distance up to 50m (164ft)
IR On/Off Control	Auto/ Manual
IR LEDs	4

Lens

Lens Type	Motorized/ Auto Iris(DC)
Mount Type	Board-in
Focal Length	2.7mm~13.5mm
Max. Aperture	F1.4
Angle of View	H: 106°~31°, V:58°~17°
Optical Zoom	5x
Focus Control	Motorized
Close Focus Distance	0.3m

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	64(210ft)	26m(85ft)	13m(42ft)	6.5m(21ft)
	T	208m(682ft)	83m(272ft)	41m(136ft)	20m(68ft)

Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan:0˚~360˚; Tilt:0˚~90˚; Rotation:0˚~360˚

Intelligence

IVS	Tripwire, Intrusion, Object Abandoned/Missing
Advanced Intelligent Functions	Face Detection

Video

Compression	H.265+/H.265/H.264+/H.264
Streaming Capability	3 Streams
Resolution	4M(2688×1520)/3M(2304×1296)/ 1080P(1920×1080)/1.3M(1280×960)/ 720P(1280×720)/D1(704×576/704×480)/ VGA(640×480)/CIF(352×288/352×240)
Frame Rate	Main Stream: 4M(1~25/30fps)
	Sub Stream: D1(1~25/30fps)
	Third Stream: 720P(1~25/30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 24~10240Kbps H.265: 14~9984Kbps

Day/Night

Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR(120dB)
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual
Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detetion	Off / On (4 Zone, Rectangle)
Region of Interest	Off / On (4 Zone)
Electronic Image Stabilization (EIS)	N/A
Smart IR	Support
Defog	N/A
Digital Zoom	16x
Flip	0°/90°/180°/270°
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

Audio

Compression	G.711a/ G.711Mu/ AAC/ G.726

Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	HTTP; HTTPs; TCP; ARP; RTSP; RTP; UDP; SMTP; FTP; DHCP; DNS; DDNS; PPPOE; IPv4/v6; QoS; UPnP;NTP; Bonjour; 802.1x; Multicast; ICMP; IGMP; SNMP
Interoperability	ONVIF, PSIA, CGI
Streaming Method	Unicast / Multicast
Max. User Access	10 Users /20 Users
Edge Storage	NAS Local PC for instant recording Mirco SD card 128GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	Smart PSS, DSS, Easy4ip
Smart Phone	IOS, Android

Certifications

Certifications	CE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart B

Interface

Video Interface	1 Port(For adjustment only)
Audio Interface	1/1 channel In/Out
RS485	N/A
Alarm	2 channel In: 5mA 5VDC 1 channel Out: 300mA 12VDC

Electrical

Power Supply	DC12V, PoE (802.3af)(Class 0)
Power Consumption	<12.95W

Environmental

Operating Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
Strorage Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
Ingress Protection	IP67
Vandal Resistance	IK10

Construction

Casing	Metal
Dimensions	273.2mm×95.0mm×95.0mm (10.76"×3.74"×3.74")
Net Weight	1.11Kg (2.44lb)
Gross Weight	1.51Kg (3.33lb)

Ordering Information

Type	Part Number	Description
4MP camera	DH-IPC-HFW5431EP-ZE	4MP WDR IR Bullet Network Camera,WDR,PAL
	DH-IPC-HFW5431EN-ZE	4MP WDR IR Bullet Network Camera,WDR,NTSC
	IPC-HFW5431EP-ZE	4MP WDR IR Bullet Network Camera,WDR,PAL
	IPC-HFW5431EN-ZE	4MP WDR IR Bullet Network Camera,WDR,NTSC
Accessories (optional)	PFA121	Junction box
	PFA152-E	Pole Mount
	LR1002	ePoE Over Coax Converter

Accessories

Optional:

PFA121
Junction box

PFA152-E
Pole Mount

LR1002
ePoE Over Coax Converter

Junction Mount	Pole Mount
PFA121	PFB121 + PFA152

Dimensions (mm/inch)

273.2 [10.76"]
174.4 [6.87"]
160.0 [6.3"]
95.0 [3.74"]
89.0 [3.5"]
79.4 [3.13"]
95.0 [3.74"]

Comelit
Passion.Technology.Design.
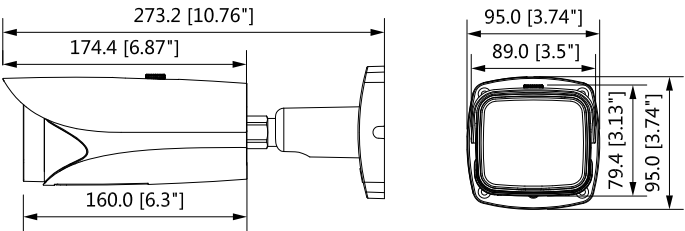
ANPR922M3M

TELECAMERA IP LPR 3MP, ZOOM 9-22MM, IP66

Telecamera IP LPR bullet a colori Day & Night, ottica varifocal con zoom motorizzato da 9-22 mm, risoluzione 3MP@30 ips o 2MP@60 ips, contenitore waterproof IP66, 30 illuminatori ad infrarosso SMD con portata di 15 metri, velocità massima di rilevamento del transito 90 km/h, compatibile ONVIF 2.6 Profile S.

Le specifiche tecniche sono soggette a variazioni senza preavviso.

ANPR922M3M

TELECAMERA IP LPR 3MP, ZOOM 9-22MM, IP66

CARATTERISTICHE PRINCIPALI

- Sensore 1/2.8" CMOS Sony Progressive Scan

- Risoluzione 3MP

- Zoom motorizzato

- Dual Streaming

- WDR (Wide Dynamic Range)

- 3DNR (Digital Noise Reduction)

- Motion Detection

- Watermarking

- IP66

ACCESSORI

- 43082 - Alimentatore 12 Vcc / 1.33 A

ANPR922M3M

TELECAMERA IP LPR 3MP, ZOOM 9-22MM, IP66

CARATTERISTICHE PRINCIPALI

Sensore telecamera:	1/2.8'' CMOS Sony Progressive scan
Pixel effettivi HxV (mm):	2048x1536
Obiettivo telecamera:	9÷22mm, motorizzato
Velocità massima rilevamento del transito:	
Shutter elettronico (s):	1/50÷1/2000
Zoom ottico telecamera:	2.5x
Sensibilità (lux):	0.5 (colori), 0 (B/N, led IR ON)
Filtro IR:	Meccanico
Risoluzione video (H x V):	2048x1536 (3MP), 3MP

CARATTERISTICHE SOFTWARE/FIRMWARE

Compressione video:	H.264, H.265 (Dual streaming)
Frame rate:	60fps@2MP/30fps@3MP
Protocolli supportati:	HTTPS, IPv4, IPv6, Milestone, ONVIF 2.6 Profile S, PPPoE, RTSP, SMTP, SNTP, TCP/IP, UDP, UPnP, DHCP, FTP
Aggiornamento firmware tramite rete:	Si
Utenti collegati contemporaneamente:	10
Visualizzazione remota da browser:	Internet Explorer

FUNZIONI

Motion detection (zone):	Sì
Effetti digitali:	Specchio (Ortizzontale, Verticale, Rotazione 180°), OSD
Wide Dinamic Range WDR (dB):	WDR
Controllo DNR:	3DNR
Titolazione telecamera:	Si

CARATTERISTICHE HARDWARE

N° led IR / distanza di illuminazione (m):	30 led SMD / 15m
Grado protezione IP:	IP66
Ingressi/uscite allarme:	1/1
Ingressi/uscite audio:	
Tipo di uscita LAN:	Ethernet 10/100 Mbit/s (RJ45)
Supporto scheda SD (scheda non fornita):	Si

DATI GENERALI

Tensione di alimentazione (Vcc):	12
Assorbimento max (W):	9,24

Le specifiche tecniche sono soggette a variazioni senza preavviso.

ANPR922M3M

TELECAMERA IP LPR 3MP, ZOOM 9-22MM, IP66

DATI GENERALI	
Alimentazione POE:	
Altezza prodotto (mm):	110
Larghezza prodotto (mm):	84
Profondità prodotto (mm):	231
Peso prodotto (g):	820
Tipo rivestimento:	Aluminio pressofuso
Tipo di case:	
Colore prodotto:	Bianco
Temperatura di funzionamento (°C):	-30 ÷ 45
Umidità di funzionamento RH max (%):	90

Le specifiche tecniche sono soggette a variazioni senza preavviso.

DH-SD59430U-HNI

4MP 30x IR PTZ Network Camera

· 1/3" 4Megapixel CMOS
· Powerful 30x optical zoom
· H.265 Encoding
· Max. 25/30fps@4M/3M, 25/30/50/60fps@1080P
· Auto-tracking and IVS
· Support PoE+
· IR distance up to 100m
· IP66

H.265	WDR	ICR D/N	IP66	PoE+

System Overview

Featuring powerful optical zoom and accurate pan/tilt/zoom performance, the camera can provide large monitoring range and great detail. It is equipped with quick and smooth control, high quality image and good protection, which make it can meet most of the requirements of video surveillance applications.

Functions

Wide Dynamic Range
The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Auto-tracking
This feature controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. The tracking action can be triggered manually or automatically by defined rules. Once a rule is triggered, the camera can zoom in and track the defined target automatically.

Smart H.265+
Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

PFA Technology
PFA technology has innovatively introduced new methods of judgment to ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms. PFA ensures clarity of the image throughout the process of zooming and shortens focus time. The realization of PFA technology substantially improves user experience and increases product value.

Environmental
Dahua cameras operate in extreme temperature environments, rated for use in temperatures from -40°C ~ 70°C (-40°F ~ +158°F) with 95% humidity. Subjected to rigorous dust and water immersion tests and certified to the IP66 Ingress Protection rating makes it suitable for demanding outdoor applications.

Protection
The camera allows for ±10% input voltage tolerance, suitable for the unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning.
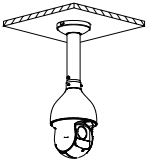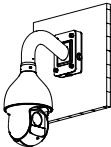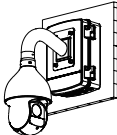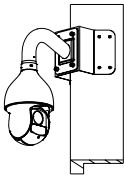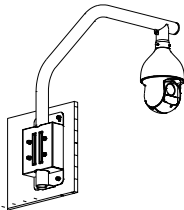
Interoperability
The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

Technical Specification

Camera

Image Sensor	1/3" CMOS
Effective Pixels	2592(H) x 1520(V), 4 Megapixels
RAM/ROM	1024M/128M
Scanning System	Progressive
Electronic Shutter Speed	1/1s~1/30,000s
Minimum Illumination	Color: 0.05Lux@F1.6; B/W: 0.005Lux@F1.6; 0Lux@F1.6 (IR on)
IR Distance	Distance up to 100m (384ft)
IR On/Off Control	Auto/Manual
IR LEDs	4

Lens

Focal Length	4.5mm~135mm
Max. Aperture	F1.6 ~ F4.4
Angle of View	H: 60° ~ 2.2°
Optical Zoom	30x
Focus Control	Auto/Manual
Close Focus Distance	100mm~ 1000mm

DORI Distance

*Note: The DORI distance is a "general proximity" of distance which makes it easy to pinpoint the right camera for your needs. The DORI distance is calculated based on sensor specification and lab test result according to EN 62676-4 which defines the criteria for Detect, Observe, Recognize and Identify respectively.

Detect	Observe	Recognize	Identify
2700m(8858ft)	1080m(3543ft)	540m(1772ft)	270m(886ft)

PTZ

Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: -15° ~ 90°,auto flip 180°
Manual Control Speed	Pan: 0.1° ~300° /s; Tilt: 0.1° ~200° /s
Preset Speed	Pan: 400° /s; Tilt: 300° /s
Presets	300
PTZ Mode	5 Pattern, 8 Tour, Auto Pan ,Auto Scan
Speed Setup	Human-oriented focal Length/ speed adaptation
Power up Action	Auto restore to previous PTZ and lens status after power failure
Idle Motion	Activate Preset/ Scan/ Tour/ Pattern if there is no command in the specified period
Protocol	DH-SD

Intelligence

Event Trigger	Motion detection, Video tampering , Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly
Auto Tracking	Support
IVS	Tripwire, Intrusion, Abandoned/Missing
Advanced Intelligent Functions	Face Detection, Heat Map

Video

Compression	H.265+/H.265/H.264+/H.264/MJPEG(Sub Stream)
Streaming Capability	3 Streams
Resolution	4M(2592×1520)/3M(2304×1296)/1080P(1920× 1080)/720P(1280×720)/D1(704×576/704×480)/ CIF(352×288/352×240)
Frame Rate	Main stream: 4M/3M(1~25/30fps), 1080P/1.3M/ 720P(1~50/60fps)
	Sub stream1: D1/CIF(1 ~ 25/30fps)
	Sub stream2: 1080P/1.3M/720P/D1/CIF (1~25/30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.265/H.264: 448K ~ 8192Kbps
Day/Night	Auto(ICR) / Color / B/W
Backlight Compensation	BLC / HLC / WDR (120dB)
White Balance	Auto, ATW, Indoor, Outdoor, Manual
Gain Control	Auto / Manual
Noise Reduction	Ultra DNR (2D/3D)
Motion Detection	Support
Region of Interest	Support
Electronic Image Stabilization (EIS)	Support
Defog	Support
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas

Audio

Compression	G.711a/G.711Mu/AAC/G.722 / G.726/G.729/ MPEG2-L2

Network

Ethernet	RJ-45 (10Base-T/100Base-TX)
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS,PPPOE,DDNS,FTP, IP Filter,QoS,Bonjour,802.1x
Interoperability	ONVIF Profile S&G, API
Streaming Method	Unicast / Multicast
Max. User Access	20 users
Edge Storage	NAS (Network Attached Storage),Local PC for instant recording, Micro SD card 256GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	Smart PSS, DSS, DMSS
Smart Phone	IOS, Android

AC24V/3A
Power Adapter

ering Information

	Part Number	Description
	DH-SD59430U-HNI	4MP 30x IR PTZ Network Camera, WDR, PAL
PTZ ra	DH-SD59430UN-HNI	4MP 30x IR PTZ Network Camera, WDR, NTSC
	SD59430U-HNI	4MP 30x IR PTZ Network Camera, WDR, PAL
	SD59430UN-HNI	4MP 30x IR PTZ Network Camera, WDR, NTSC
	PFB300S	Wall Mount
	PFA110	Mount Adapter
	AC24V/3A	Power Adapter
	PFA140	Power Box
sories	PFB300C	Ceiling Mount
	PFA120	Junction Box
	PFA150	Pole Mount
	PFA151	Corner Mount
	PFB303S	Parapet Mount

Ceiling Mount	Junction Mount
PFA110 + PFB300C	PFA110 + PFB300S + PFA120
Power Box Mount	**Pole Mount**
PFA110 + PFB300S + PFA140	PFA110 + PFB300S + PFA150
Corner Mount	**Parapet Mount**
PFA110 + PFB300S + PFA151	PFA110 + PFB303S

Dimensions (mm)

Ø47mm
Ø26mm
Ø144mm
Ø309mm
Ø154mm
Ø186mm

dahua
TECHNOLOGY