

# DH-HAC-PFW3601-A180-AC24

## 3X2MP Multi-Sensor Panoramic HDCVI IR-Bullet Camera

### HDCVI



- Three 1/2.8" 2Megapixel progressive scan CMOS
- 1 panoramic view & 3 individual 2MP video output simultaneously
- Max. 15fps@4K, 25fps@4M
- 120db true WDR, 2D&3D NR
- HDCVI starlight technology
- Max. 20m IR distance
- IP67&IK10 ingress protection
- Up to 500m transmission with RG59 coaxial cable



### System Overview

The multi-sensor Starlight panoramic HDCVI camera provides added flexibility for wide-area video surveillance. Three 2MP sensors work in tandem to create a comprehensive 180-degree 4K image with enhanced details and simultaneously outputs separate three channels of 2MP HDCVI video. This results in four crystal-clear video feeds from just one camera, drastically reducing installation and maintenance costs. Additionally, the multi-sensor camera also supports electronic cruise and multiple motion detection functionality. Its panoramic view makes the camera an ideal choice for large-size businesses and places such as airports, stadiums, parking lots, and shopping malls.

### Functions

#### 180° panoramic view

Equipped with 3x2MP CMOS sensors PFW3601 camera can monitor full horizontal views and deliver high quality comprehensive 180-degree coverage with no blind spot. The camera is able to provide coverage of wide, open areas, such as airports, harbour, park, public square, shopping malls and more. So you will get a overall coverage video just with one HAC-PFW3601 over coax with less hardware, and saving you money.

#### Multi channels video output

With four BNC interfaces HAC-PFW3601 can output three channels of 2MP separate real-time video corresponding to three independent imaging systems and one channel of seamless stitching panoramic video at the same time. The three-in-one design combines details with full view and to meet the efficient and cost-effective installation requirements.

#### Intelligent Mode

Utilize Dahua's advance intelligent algorithm the panoramic channel is able to support electronic cruise, a.k.a. E-PTZ, which benefits the detection of moving targets in critical areas. Realize the regional area amplification of the panoramic image, the size and location are adjustable as you want.

#### 4 Signals over 1 Coaxial Cable

HDCVI technology supports 4 signals to be transmitted over 1 coaxial cable simultaneously, i.e. video, audio\*, data and power. Dual-way data transmission allows the HDCVI camera to interact with the HCVR, such as sending control signal or triggering alarm. Moreover, HDCVI technology supports PoC for construction flexibility.

\* Audio input is available for some models of HDCVI cameras.

#### Long Distance Transmission

HDCVI technology guarantees real-time transmission at long distance without any loss. It supports up to 700m transmission for 4K and 4MP HD video via RG6 coaxial cable, and up to 300m via UTP cable.\*

\*Actual results verified by real-scene testing in Dahua's test laboratory.

#### Simplicity

HDCVI technology inherits the born feature of simplicity from traditional analog surveillance system. Meanwhile by having one PFW3601 camera users can get several different monitor point making itself be a best choice for investment protection. On the other hand HDCVI system can seamlessly upgrade the traditional analog system without replacing existing coaxial cabling. The plug and play approach enables full HD video surveillance without the hassle of configuring a network.

#### Wide Dynamic Range

Embedded with industry leading wide dynamic range (WDR) technology, vivid pictures are achieved even in the most intense contrast lighting conditions. True WDR (120dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

#### Advanced 3DNR

3DNR is noise reduction technology that detects and eliminates random noises by comparing two sequential frames. Dahua's advanced 3DNR technology allows remarkable noise reduction with little impact to sharpness, especially under limited lighting condition. Besides, the advanced 3DNR effectively decreases the bandwidth and saves the storage space.

#### Protection

The camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against vandalism with IK10-rated and IP67 water-proof, making it suitable for most environment such as public place, manufacturing and commercial facilities.

Supporting  $\pm 25\%$  input voltage tolerance, this camera suits even the most unstable power supply conditions. Its 4KV lightning rating provides protection against the camera and its structure from the effects of lightning.

### Technical Specification

#### Camera

Image Sensor	Three 1/2.8" 2MP STARVIS™ CMOS
Effective Pixels(Panorama)	4K(3840x832)/4M(2560x554)
Scanning System	Progressive
Electronic Shutter Speed	PAL:1/4s~1/100,000s NTSC:1/3s~1/100,000s
Minimum Illumination	0.005Lux/F1.8( Color), 30IRE,0Lux/F1.8(IR on)
S/N Ratio	More than 65dB
IR Distance	20m
IR On/Off Control	Auto (ICR)/Color/B/W
IR LEDs	6

#### Lens

Lens Type	Fixed lens / Fixed iris
Mount Type	Board-in
Focal Length	3.6mm
Max Aperture	F1.8
Angle of View	H: 180°
Focus Control	N/A
Close Focus Distance	500mm 19.7"

#### 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.

	DORI Definition	Distance
Detect	25px/m (8px/ft)	50m(163ft)
Observe	63px/m (19px/ft)	20m(65ft)
Recognize	125px/m (38px/ft)	10m(33ft)
Identify	250px/m (76px/ft)	5m(16ft)

#### Pan / Tilt / Rotation

Pan/Tilt/Rotation	Pan: 0° ~ 360° Tilt: 0° ~ 90° Rotation: 0° ~ 360°
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#### Video

Resolution	4K (3840X2160)/4MP(2560x1440)
Frame Rate	PAL:3840x2160@12.5fps,2560x1440@25fps; NTSC:3840x2160@15fps,2560x1440@25fps;
Video Output	1-channel BNC HDCVI panoramic video output & 3-channels BNC 2MP HDCVI video output

Day/Night	Auto (Electronic) / Manual
OSD Menu	Multi-language
BLC Mode	BLC / HLC / WDR
WDR	120dB
Gain Control	AGC
Noise Reduction	2D/3D
White Balance	Auto / Manual
Smart IR	Auto / Manual

#### Certifications

Certifications	CE (EN55032, EN55024, EN50130-4) FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014) UL (UL60950-1+CAN/CSA C22.2 No.60950-1)
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#### Interface

Alarm I/O	2/1
Audio Interface	1-channel audio in(JACK)
Test interface	1-channel 2-pin CVBS video output
Upgrade Interface	1-channel 4-pin USB input
Code switcher	1 physical code switch(switch the preset video source)
Menu set	1 Five-direction button

#### Electrical

Power Supply	24V AC ±25%
Power Consumption	24W

#### Environmental

Operating Conditions	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 95% RH * Start up should be done at above -30°C (-22°F)
Storage Conditions	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 95% RH
Ingress Protection & Vandal Resistance	IP67&IK10

#### Construction

Casing	Aluminium
Dimensions	286mm x 119mm x 106mm(11.26"x4.68"x4.19")
Net Weight	2.05kg (4.5lb)
Gross Weight	2.43kg (5.36lb)

**Ordering Information**

Type	Part Number	Description
8MP Camera	DH-HAC-PFW3601P-A180-AC24	4K multi-sensor Panoramic HDCVI IR-Bullet Camera, PAL,AC24V voltage input
	DH-HAC-PFW3601N-A180-AC24	4K multi-sensor Panoramic HDCVI IR-Bullet Camera, NTSC,AC24V voltage input
Accessories	PFA150	Pole mount bracket
	PFA124-B	Water-proof junction box
	PFA151	Coner mount bracket
	PFM800-E	1 Channel Passive HDCVI Balun
	PFM320	12V 2A Power Adapter

**Dimensions (mm/inch)**

Optional:



PFA150  
Pole mount



PFA124-B  
Water-proof junction box



PFA151  
Coner mount bracket



PFM800-E  
Passive HDCVI Balun



PFM320  
12V 2A Power  
Adapter

Junction Mount	Pole Mount
PFA124-B	PFA124-B + PFA150
Corner Mount	
PFA124-B + PFA151	

**Dimensions (mm/inch)**

