

# Multi-Sensor Panoramic Camera

## 3 x 2 MP Multi-Sensor Panoramic HDCVI IR Bullet Camera



- Three (3) 1/2.8-in 2 MP Progressive Scan STARVIS™ CMOS Sensors
- Simultaneous 180° Panoramic Output plus Three (3) 2 MP HDCVI Video Outputs
- Three (3) 3.6 mm Lenses
- Maximum 3840 x 832 at 30 fps Resolution
- True WDR (120 dB), 2D and 3D Noise Reduction
- Intelligent Functions
- Maximum IR Distance 20 m (66 ft)
- IP67 Ingress Protection and IK10 Vandal Resistance
- Five-year Warranty



### System Overview

The Dahua Multi-Sensor HDCVI Camera uses three (3) 2 MP sensors to deliver a panoramic 180° scene. The camera provides one output for the 180° panoramic video, plus three separate 2 MP HDCVI outputs, one for each sensor. One multi-sensor camera replaces multiple single-sensor cameras providing a higher return on investment for your security dollars. Each sensor is independently configurable, so contrast, backlight compensation, white balance control, and resolution adjustments can be tailored to create a crystal-clear image.

### Functions

#### 180° Panoramic View

Equipped with three (3) 2MP CMOS sensors, the PFW3601 camera monitors full 180° horizontal views with no blind spots. The camera is able to provide coverage of airports, harbours, parks, public squares, shopping malls and other wide open areas.

#### Multi-channel Video Output

The camera comes with four (4) BNC connectors to deliver three (3) separate real-time video outputs corresponding to three independent sensors, and one (1) BNC connector to deliver the stitched panoramic real-time video simultaneously.

#### Intelligent Functions

The multi-sensor camera offers several intelligent functions that assist observation of the 180° scene. The ePTZ function offers a digital patrol function that enlarges a partial view of the scene for enhanced surveillance. The camera also detects an object that moves through any part of the scene and can trigger an alarm to alert an operator.

#### Four Signals over One Coaxial Cable

HDCVI technology simultaneously transmits four signals (video, power, audio, and data) over a single coaxial cable. Dual-way data transmission allows the HDCVI camera to communicate with an HCVR to send control signals or to trigger alarms. Moreover, HDCVI technology supports PoC for construction flexibility.

#### Long Distance Transmission

HDCVI technology guarantees real-time transmission over long distances without loss of video quality. HDCVI cameras provide the same resolution as most IP network camera systems using existing RG-59, RG-6, or CAT 6 UTP cabling.

#### Simplicity

HDCVI technology seamlessly integrates traditional analog surveillance systems with upgraded, high-quality HD video, making it the best choice to protect security investments. The plug and play approach enables full HD video surveillance without the hassles of configuring a network.

#### Wide Dynamic Range

The multi-sensor 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.

#### Advanced 3DNR

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

#### Protection

The multi-sensor camera allows for ±25% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6 KV 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 test (IK10), the multi-sensor camera is the choice for installation in even the most unforgiving environments.

## Technical Specification

### Camera

Image Sensor	Three (3), 1/2.8-in. 2 MP STARVIS™ CMOS Sensors
Effective Pixels	3840 (H) x 832 (V)
Scanning System	Progressive
Electronic Shutter Speed	1/3 s to 1/100,000 s
Minimum Illumination	Color: 0.007 Lux at F1.8 0 Lux at F1.8 with IR on
S/N Ratio	More than 65 dB
IR Distance	Distance up to 20.0 m (65.62 ft)
IR On/Off Control	Auto, Manual
IR LEDs	Six (6)

### Lens

Lens Type	Fixed Lens, Fixed Iris
Mount Type	Board-in
Focal Length	3.6 mm
Max. Aperture	F1.8
Horizontal Angle of View	180°
Close Focus Distance	20.0 mm (0.79 in.)

### Pan/Tilt/Rotation

Range	Pan: 0° to 360° Tilt: 0° to 90° Rotation: 0° to 360°
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### Video

Resolution	3840 x 832, 2560 x 554	
Frame Rate	3840 x 832 at 15 fps, 2560 x 554 at 30 fps	
Video Output	One (1) BNC HDCVI Panoramic Video Channel, and Three (3) BNC 2 MP HDCVI Video Channels	
Video Transmission <sup>1</sup>	RG-59/U Coax	720p: 500 m (1640.42 ft) 1080p: 400 m (1312.34 ft) 4 MP: 300 m (984.25 ft)
	RG-6/U Coax	720p: 800 m (2624.67 ft) 1080p: 600 m (1968.50 ft) 4 MP: 600 m (1968.50 ft)
	CAT 6 UTP (balun required)	720p: 380 m (1246.72 ft) 1080p: 380 m (1246.72 ft) 4 MP: 200 m (656.17 ft)
Day/Night	Auto (Electronic), Manual	
OSD Menu	Multi-language	
BLC Mode	BLC, HLC, WDR (120 dB)	
Gain Control	AGC	
Noise Reduction	2D/3D	
White Balance	Auto, Manual	
Smart IR	Auto, Manual	

### Interface

Audio	Input: One (1) Channel (jack)
Alarm	Input: Two (2) Channels Output: One (1) Channel
Test Interface	One (1) Channel, 2-pin CVBS Video Output
Upgrade Interface	One (1) Channel, 4-pin USB Input
Code Switcher	One (1) Physical Code Switch (switches the source of the preset video)
Menu Set	One (1) 5-direction Keyboard

### Electrical

Power Supply	12 VDC ± 25%
Power Consumption	23 W

### Certifications

Safety	EN55032, EN55024, EN50130-4 UL60950-1+CAN/CSA C22.2 No.60950-1)
Electromagnetic Compatibility (EMC)	FCC Part 15 Subpart B ANSI C63.4-2014

### Environmental

Operating Temperature	-30° C to +60° C (-22° F to +140° F), Less than 90% relative humidity Initiate start-up above -30° C (-22° F)
Storage Temperature	-30° C to +60° C (-22° F to +140° F), Less than 90% relative humidity
Ingress Protection	IP67
Vandal Resistance	IK10

### Construction

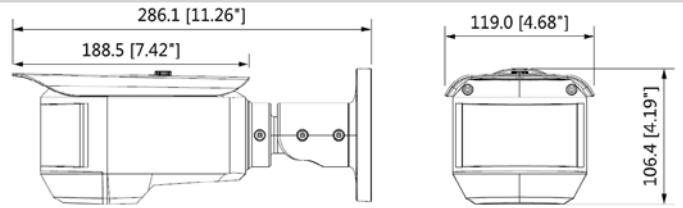
Casing	Aluminum
Dimensions	286.0 mm x 119.0 mm x 106.0 mm (11.26 in. x 4.68 in. x 4.19 in.)
Net Weight	1.50 kg (3.30 lbs)
Gross Weight	2.0 kg (4.40 lbs)

1. Transmission distance results verified by real-scene testing in Dahua's test laboratory. Actual transmission distances may vary due to external influences, cable quality, and wiring structures.

**Ordering Information**

Type	Part Number	Description
3 x 2 MP Camera	DH-HAC-PFW3601N-A180	3 x 2 MP Multi-sensor HDCVI Panoramic IR Bullet Camera, WDR
	DH-HAC-PFW3601N-A180-AC24	3 x 2 MP Multi-sensor HDCVI Panoramic IR Bullet Camera, WDR, with AC24V Power Supply
Accessories, optional	PFM800-4M	Passive HDCVI Balun
	PFM810	POC Transceiver

**Dimensions (mm/inch)**



**Accessories**

**Optional:**



PFM810  
POC Transceiver



PFM800-4M  
Passive HDCVI Balun