

DH-HAC-HFW2401E

4MP HDCVI WDR IR Bullet Camera

HDCVI



- · 120dB True WDR, 3DNR
- · Max 4MP real-time
- · HD and SD dual-output
- · 3.6mm fixed lens
- · Max. IR length 40m, Smart IR
- · IP67, DC12V













System Overview

Experience superior clarity of real-time 4Mega-pixel video with the simplicity of using existing coaxial infrastructure. The 4MP HDCVI camera presents high quality image with clear details and accurate color rendition, and supports 120dB true WDR for applications under complex dynamic range. It offers various motorized/fixed lens models with multi-language OSD and HD&SD dual-output. The higher resolution and complete features make the 4MP HDCVI camera an ideal choice for mid to large-size business and common projects where both highly reliable surveillance and construction flexibility are concerned.

Functions

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 4MP HD video via 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, making itself a best choice for investment protection. 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.

Multi-outputs

The camera supports HDCVI and CVBS signal outputs simultaneously with two BNC connectors. Multi-outputs facilitates construction in such situations as debugging through a tester. It also offers the possibility for cooperating with multiple devices including analog matrix or monitor.

Smart IR

The camera is designed with array LED IR illumination for best lowlight performance. Smart IR is a technology to ensure brightness uniformity in B/W image under low illumination. Dahua's unique Smart IR adjusts to the intensity of camera's infrared LEDs to compensate for the distance of an object, and prevents IR LEDs from overexposing images as the object come closer to the camera.

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 band width and saves the storage space.

Large Aperture Lens

The camera adopts high-end F1.5 large aperture lens. With higher amount of absorbed light, the camera presents an impressive lowlight performance.

Protection

lightning.

The camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against water and dust with IP67 ranking, making it suitable for indoor or outdoor environments. 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

Elaborate Design

In order to minimize the interference against on-going business activities, as well as meeting aesthetics requirements, the front face of camera is designed with dark glass.

Pro Series | DH-HAC-HFW2401E

Technical Specification Camera 1/3" CMOS Effective Pixels 2688(H)x1520(V), 4.1MP Scanning System Progressive Electronic Shutter Speed 1/3s-"1/300,000s Minimum Illumination 0.03Lux/F1.5, OLux IR on S/N Ratio More than 65dB IR Distance Up to 40m (130feet) IR On/Off Control Auto / Manual IR LEDs 2 Lens Fixed lens / Fixed iris Mount Type Board-in Focal Length 3.6mm Max Aperture F1.5 Angle of View H: 78" Focus Control N/A Close Focus Distance 1500mm 59.06" Pan / Tilt / Rotation Pan: 0" ~ 360" Tilt: 0" ~ 90" Rotation: 0" ~ 360" Video Wideo Wideo Output 1-channel BNC HDCVI high definition video output & 1-channel BNC HDCVI high definition video o		
Image Sensor 1/3" CMOS Effective Pixels 2688(H)×1520(V), 4.1MP Scanning System Progressive Electronic Shutter Speed 1/3s~1/300,000s Minimum Illumination 0.03Lux/F1.5, 0Lux IR on S/N Ratio More than 65dB IR Distance Up to 40m (130feet) IR On/Off Control Auto / Manual IR LEDs 2 Lens Lens Lens Type Fixed lens / Fixed iris Mount Type Board-in Focal Length 3.6mm Max Aperture F1.5 Angle of View H: 78* Focus Control N/A Close Focus Distance 1500mm 59.06" Pan / Tilt / Rotation Pan: 0" ~ 360" Tilt: 0" ~ 90" Rotation: 0" ~ 360" Video Resolution 4MP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 1-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output Day/Night Auto (ICR) / Manual OSD Menu Multi-language BLC Mode BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	Technical Specification	
Effective Pixels 2688(H)x1520(V), 4.1MP Scanning System Progressive Electronic Shutter Speed 1/3s~1/300,000s Minimum Illumination 0.03Lux/F1.5, 0Lux IR on S/N Ratio More than 65dB IR Distance Up to 40m (130feet) IR On/Off Control Auto / Manual IR LEDS 2 Lens Lens Lens Lens Type Fixed lens / Fixed iris Mount Type Board-in Focal Length 3.6mm Max Aperture F1.5 Angle of View H: 78* Focus Control N/A Close Focus Distance 59.06" Pan / Tilt / Rotation Pan/Tilt/Rotation Pan: 0* ~ 360* Tilt: 0* ~ 90* Rotation: 0* ~ 360* Video Resolution 4MP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 1-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output Day/Night Auto (ICR) / Manual OSD Menu Multi-language BLC Mode BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	Camera	
Scanning System Progressive Electronic Shutter Speed 1/3s~1/300,000s Minimum Illumination 0.03Lux/F1.5, OLux IR on S/N Ratio More than 65dB IR Distance Up to 40m (130feet) IR On/Off Control Auto / Manual IR LEDs 2 Lens Lens Lens Type Fixed lens / Fixed iris Mount Type Board-in Focal Length 3.6mm Max Aperture F1.5 Angle of View H: 78* Focus Control N/A Close Focus Distance 1500mm 59.06" Pan / Tilt / Rotation Pan: 0*~360* Tilt: 0*~90* Rotation: 0*~360* Video Resolution 4MP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 1-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output Day/Night Auto (ICR) / Manual OSD Menu Multi-language BLC Mode BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	Image Sensor	1/3" CMOS
Electronic Shutter Speed 1/3s~1/300,000s Minimum Illumination 0.03Lux/F1.5, 0Lux IR on S/N Ratio More than 65dB IR Distance Up to 40m (130feet) IR On/Off Control Auto / Manual IR LEDs 2 Lens Lens Lens Type Fixed lens / Fixed iris Mount Type Board-in Focal Length 3.6mm Max Aperture F1.5 Angle of View H: 78* Focus Control N/A Close Focus Distance 59.06" Pan / Tilt / Rotation Pan/Tilt/Rotation Tilt: 0" ~ 90" Rotation: 0" ~ 360" Video Resolution 4MP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 1-channel BNC CVBS video output & 1-channel BNC CVBS video output Auto (ICR) / Manual OSD Menu Multi-language BLC Mode BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	Effective Pixels	2688(H)×1520(V), 4.1MP
Minimum Illumination 0.03Lux/F1.5, 0Lux IR on S/N Ratio More than 65dB IR Distance Up to 40m (130feet) IR On/Off Control Auto / Manual IR LEDs 2 Lens Lens Lens Type Fixed lens / Fixed iris Mount Type Board-in Focal Length 3.6mm Max Aperture F1.5 Angle of View H: 78* Focus Control N/A Close Focus Distance 59.06* Pan / Tilt / Rotation Pan/Tilt / Rotation Pan/Tilt / Rotation Pane: 0* ~ 360*	Scanning System	Progressive
S/N Ratio More than 65dB IR Distance Up to 40m (130feet) IR On/Off Control Auto / Manual IR LEDs 2 Lens Lens Lens Type Fixed lens / Fixed iris Mount Type Board-in Focal Length 3.6mm Max Aperture F1.5 Angle of View H: 78° Focus Control N/A Close Focus Distance 1500mm 59.06" Pan / Tilt / Rotation Pan/Tilt / Rotation Pan: 0° ~ 360° Tilt: 0° ~ 90° Rotation: 0° ~ 360° Video Resolution 4MP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 2-channel BNC HDCVI high definition video output & 1-channel BNC CVBs video output Day/Night Auto (ICR) / Manual OSD Menu Multi-language BLC Mode BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	Electronic Shutter Speed	1/3s~1/300,000s
IR Distance Up to 40m (130feet) IR On/Off Control Auto / Manual IR LEDs 2 Lens Lens Lens Type Fixed lens / Fixed iris Mount Type Board-in Focal Length 3.6mm Max Aperture F1.5 Angle of View H: 78* Focus Control N/A Close Focus Distance 59.06* Pan / Tilt / Rotation Pan/Tilt / Rotation Pan/Tilt / Rotation 11: 0° ~ 90° Rotation: 0° ~ 360° Video Resolution 4MP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 1-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output Day/Night Auto (ICR) / Manual OSD Menu Multi-language BLC Mode BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	Minimum Illumination	0.03Lux/F1.5, 0Lux IR on
IR On/Off Control IR LEDs 2 Lens Lens Type Fixed lens / Fixed iris Mount Type Board-in Focal Length 3.6mm Max Aperture F1.5 Angle of View H: 78* Focus Control N/A Close Focus Distance Pan / Tilt / Rotation Pan/Tilt/Rotation Pan: 0* ~ 360* Tilt: 0* ~ 90* Rotation: 0* ~ 360* Video Resolution AMP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 1-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output BLC Mode BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction Auto / Manual White Balance Auto / Manual	S/N Ratio	More than 65dB
Lens Lens Type Fixed lens / Fixed iris Mount Type Board-in Focal Length 3.6mm Max Aperture F1.5 Angle of View H: 78° Focus Control N/A Close Focus Distance 1500mm 59.06° Pan / Tilt / Rotation Pan/Tilt / Rotation Pan: 0° ~ 360° Tilt: 0° ~ 90° Rotation: 0° ~ 360° Video Resolution 4MP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 2-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output	IR Distance	Up to 40m (130feet)
Lens Type Fixed lens / Fixed iris Mount Type Board-in Focal Length 3.6mm Max Aperture F1.5 Angle of View H: 78° Focus Control N/A Close Focus Distance 1500mm 59.06" Pan / Tilt / Rotation Pan/Tilt/Rotation Pan: 0° ~ 360°	IR On/Off Control	Auto / Manual
Lens Type Board-in Mount Type Board-in Focal Length 3.6mm Max Aperture F1.5 Angle of View H: 78° Focus Control N/A Close Focus Distance 1500mm 59.06" Pan / Tilt / Rotation Pan/Tilt/Rotation Pan: 0° ~ 360° Rotation: 0° ~ 360° Video Resolution 4MP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 2-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output Day/Night Auto (ICR) / Manual OSD Menu Multi-language BLC Mode BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	IR LEDs	2
Mount Type Board-in 3.6mm Max Aperture F1.5 Angle of View H: 78° Focus Control N/A Close Focus Distance Pan: 0° ~ 360° Tilt: 0° ~ 90° Rotation: 0° ~ 360° Video Resolution 4MP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 1-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output	Lens	
Focal Length Max Aperture F1.5 Angle of View H: 78° Focus Control N/A Close Focus Distance Pan / Tilt / Rotation Pan/Tilt/Rotation Pan/Tilt/Rotation Pane Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 1-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output Day/Night Auto (ICR) / Manual OSD Menu Multi-language BLC Mode BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction Auto / Manual White Balance Auto / Manual	Lens Type	Fixed lens / Fixed iris
Max Aperture F1.5 Angle of View H: 78° Focus Control N/A Close Focus Distance 1500mm 59.06" Pan / Tilt / Rotation Pan/Tilt/Rotation Pan: 0° ~ 360° Tilt: 0° ~ 90° Rotation: 0° ~ 360° Video Resolution 4MP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 1-channel BNC CVBS video output 8 1-channel BNC CVBS video output 02D Menu Multi-language BLC Mode BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	Mount Type	Board-in
Angle of View Focus Control N/A Close Focus Distance 1500mm 59.06" Pan / Tilt / Rotation Pan: 0° ~ 360° Tilt: 0° ~ 90° Rotation: 0° ~ 360° Video Resolution 4MP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 1-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output	Focal Length	3.6mm
Focus Control N/A Close Focus Distance Pan / Tilt / Rotation Pan: 0° ~ 360° Tilt: 0° ~ 90° Rotation: 0° ~ 360° Video Resolution 4MP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 1-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output 8. 1-channel BNC CVBS video output Day/Night Auto (ICR) / Manual OSD Menu Multi-language BLC Mode BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	Max Aperture	F1.5
Close Focus Distance Pan / Tilt / Rotation Pan: 0° ~ 360° Tilt: 0° ~ 90° Rotation: 0° ~ 360° Video Resolution 4MP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 1-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output	Angle of View	H: 78°
Close Focus Distance Pan / Tilt / Rotation Pan: 0° ~ 360° Tilt: 0° ~ 90° Rotation: 0° ~ 360° Video Resolution 4MP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 1-channel BNC HDCVI high definition video output & 1-channel BNC cVBS video output 8.1-channel BNC CVBS video output Day/Night Auto (ICR) / Manual OSD Menu Multi-language BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	Focus Control	N/A
Pan/Tilt/Rotation Pan: 0° ~ 360° Tilt: 0° ~ 90° Rotation: 0° ~ 360° Video Resolution 4MP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 1-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output 8 1-channel BNC CVBS video output OSD Menu Multi-language BLC Mode BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	Close Focus Distance	
Pan/Tilt/Rotation Tilt: 0° ~ 90° Rotation: 0° ~ 360° Video Resolution 4MP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 1-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output 8 1-channel BNC CVBS video output Oay/Night Auto (ICR) / Manual OSD Menu Multi-language BLC Mode BLC / HLC / WDR VDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	Pan / Tilt / Rotation	
Resolution 4MP (2560×1440) Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 1-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output Day/Night Auto (ICR) / Manual OSD Menu Multi-language BLC Mode BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	Pan/Tilt/Rotation	Tilt: 0° ~ 90°
Frame Rate 25fps@4MP, 25/30fps@1080P, 25/30fps@720P Video Output 1-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output Day/Night Auto (ICR) / Manual OSD Menu Multi-language BLC Mode BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	Video	
Video Output 1-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output Auto (ICR) / Manual OSD Menu Multi-language BLC Mode BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	Resolution	4MP (2560×1440)
Noise Reduction Day/Night Auto (ICR) / Manual Auto (ICR) / Manual Auto (ICR) / Manual Multi-language BLC Mode BLC / HLC / WDR 120dB Gain Control AGC Noise Reduction Auto / Manual	Frame Rate	25fps@4MP, 25/30fps@1080P, 25/30fps@720P
OSD Menu Multi-language BLC Mode BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	Video Output	
BLC Mode BLC / HLC / WDR WDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	Day/Night	Auto (ICR) / Manual
WDR 120dB Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	OSD Menu	Multi-language
Gain Control AGC Noise Reduction 2D/3D White Balance Auto / Manual	BLC Mode	BLC / HLC / WDR
Noise Reduction 2D/3D White Balance Auto / Manual	WDR	120dB
White Balance Auto / Manual	Gain Control	AGC
	Noise Reduction	2D/3D
Smart IR Auto / Manual	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)
Eelectrical	
Power Supply	12V DC ±25%
Power Consumption	Max 7W (12V DC, IR on)
Environmental	
Operating Conditions	-30°C $^{\sim}$ +60°C (-22°F $^{\sim}$ +140°F) / Less than 90% RH * Start up should be done at above -30°C (-22°F)
Storage Conditions	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH
Ingress Protection &Vandal Resistance	IP67
Construction	
Casing	Aluminium
Dimensions	180mm×70mm×70mm (7.09"×2.76"×2.76")
Net Weight	0.40kg (0.89lb)
Gross Weight	0.51kg (1.12lb)

Ordering Information			
Туре	Part Number	Description	
4MP Camera	DH-HAC-HFW2401EP 3.6mm	4MP HDCVI WDR IR Bullet Camera, PAL	
	DH-HAC-HFW2401EN 3.6mm	4MP HDCVI WDR IR Bullet Camera, NTSC	
Accessories	PFA121	Junction box (For use alone or with PFA152 pole mount)	
	PFA152	Pole mount (For use with PFA121 junction box)	

Accessories

Optional:





PFA121 Junction box

PFA152 Pole mount

Junction Mount	Pole Mount
PFA121	PFB121 + PFA152

Dimensions (mm/inch)



