

# DH-IPC-HFWD5A1T-AZ

5MP Professional Ultra Smart Starlight Motorized Lens IR Bullet Network Camera



#### System Overview

The IR Megapixel Vari-focal camera delivers 5MP resolution with a 2.7mm  $\sim$  13.5mm varifocal lens.The camera's elegant blend of aesthetics combined with a range of easy mounting solutions provides an excellent choice for a variety of small to mid-size applications at an affordable price.

#### Functions

#### Smart Codec (H.265+ & H.264+)

Smart Codec is the optimized implementation of standard video compression (H.265 & H.264) 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 Codec technology reduces bit rate and storage requirements by up to 70% when compared to the standard video compression.

#### Intelligent Video analysis (IVS)

Dahua camera is equipped with a built-in intelligent analytic algorithm based on video, which can realize intelligent functions like Tripwire and Intrusion, to quickly and accurately respond to monitoring events in specific area, It can enhance monitoring efficiency. In addition, the camera supports intelligent tamper detection, which is to generate warning message via detecting dramatic scene change and to guarantee effective video surveillance.

#### Wide Dynamic Range (WDR)

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.

- · 1/2.7" 5Megapixel progressive CMOS
- · H.265 & H.264 dual-stream encoding
- · 15fps@5M(2592×1944)&25/30fps@3M(2304×1296)
- · WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC, Starlight
- $\cdot$  Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- $\cdot$  Micro SD card slot, up to 128GB, Ultra Smart
- · 2.7~13.5mm varifocal lens
- · Max IR LEDs Length 60m
- · IP67, IK10(optional), PoE+



#### Smart IR Technology

With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts the intensity of camera's infrared LEDs to compensate the distance of an object. Smart IR technology prevents IR LEDs from whitening out images as they come closer to the camera. The camera's integrated infrared illumination provides high performance in extreme low-light environments up to 60m (197ft).

#### Protection (IP67, wide voltage)

The camera allows for ±25% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 2KV lightning rating provides effective protection for both the camera and its structure against lightning. Subjected and certified to rigorous dust and immersion tests (IP67), the camera is the choice for installation in even the most unforgiving environments.

#### Environmental

Dahua cameras operate in extreme temperature environments, rated for use in temperatures from-30° C to +60° C (-22° F to +140° F) with 95% humidity.

#### Image flip

Capturing unnecessary data such as surrounding hallway walls can increase storage requirements without any added value. The image flip feature allows the camera's image to be rotated in 90° increments for better video optimization.

#### Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer with 3rd party software support using SDK & API.



# Ultra Series | DH-IPC-HFWD5A1T-AZ

# **Technical Specification**

Camera					
Image Sensor		1/2.7" 5Megapixel progressive CMOS			
Effective Pixels		2592(H) x1944(V)			
RAM/ROM		512MB/32MB			
Scanning System		Progressive			
Electronic Shutte	er Speed	Auto/Manual, 1/3~1/100000s			
Minimum Illumination		0.02Lux/F1.6( Color,1/3s,30IRE) 0.2Lux/F1.6( Color,1/30s,30IRE) 0Lux/F1.6(IR on)			
S/N Ratio		More than 50dB			
IR Distance		Distance up to 60m(197ft)			
IR On/Off Control		Auto/ Manual			
IR LEDs		4, Starlight			
Lens					
Lens Type		Motorized(-ZS), Manual(-VFS)			
Mount Type		Board-in			
Focal Length		2.7mm~13.5mm			
Max. Aperture		F1.4			
Angle of View		H:95°~27°, V:70°~20°			
Focus Control		Motorized(-ZS),Manual(-VFS)			
Close Focus Distance		0.3m			
	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	64m(210t)	26m(85ft)	13m(43ft)	6m(20ft)
	Т	222m(728ft)	89m(292ft)	44m(144ft)	22m(72ft)
PTZ					
Pan/Tilt Range		Pan:0° ~360° ;Tilt:0° ~90° ;Rotation:0° ~360°			
Intelligence					
Event Trigger		Ultra Smart, Motion detection, Video tampering, Scene Change, Network disconnection , IP address conflict, Illegal Access,Storage anomaly			
IVS		Tripwire, Intrusion			
Video					
Compression		H.265/H.264H/MJPEG(Sub Stream)			
Smart Codec		Support H.265+/H.264+			
Streaming Capability		2 Streams			
Resolution		5M(2592×1944)/4M(2688×1520)/3M(2304×1296/2 048×1536)/1080P(1920×1080)/720P(1280×720)/ D1(704×576/704×480)/VGA(640×480)/ CIF(352×288/352×240)			
Frame Rate		Main Stream: 5M (1 ~ 15fps)/3M(1 ~ 25/30fps)			
		Sub Stream: D1	./CIF(1 ~ 25/3	Ofps)	
Bit Rate Control		CBR/VBR			

Bit NateH264: 32K ~ 10240KbpsDay/NightAuto(ICR) / Color / B/WBLC ModeBLC / HC / WDR(120dB)BLC ModeAuto/Natura/Street Lamp/Outdoor/ManualGain ControlAuto/ManualNoise Reduction0 DNRMotion DetectionOff / On (4 Zone, Rectangle)Region of InterestOff / On (4 Zone, Rectangle)Bitabilizion(ES)N/ADigital ZoomOff / On (4 Zone, Rectangle)Namar IRSupportDigital ZoomOff / On (4 Zone, Rectangle)MirorOff / On (4 Zone, Rectangle)MirorOff / On (4 Area, Rectangle)MirorOff / On (4 Area, Rectangle)MirorOff / On (4 Area, Rectangle)AudioUTUP/ITPS/TCP/ARP/RTSP/RTPPALPOUPS/SUTPProtocolR-54 (0/1008as-T)InteroperabilityOliver/SUTPS/TCP/IDPS/SUTPInteroperabilityUnicast / UniticastMas User AccessOliver/SUSS/SK & API.Kraning MethodUnicast / UniticastMas Off Corrinstant recording Micro SO Corri 1226GMas Off Corrinstant recording Micro SO Corri 1226G <th></th> <th>H.265: 12K ~ 8448Kbps</th>		H.265: 12K ~ 8448Kbps		
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Nanagement SoftwareSmart PSS, DSS, DMSSSmart PhoneIOS, AndroidCertificationsCertificationsCertificationsCE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart BInterfaceN/AAudio InterfaceN/AAudio InterfaceN/ARS485N/AAlarm1 channel In: SmA 5VDC 1 channel Out: 300mA 12VDCElectricalPower SupplyDC12V,POE+ (IEEE 802.3at)/Class 4)	Edge Storage	Local PC for instant recording		
Smart PhoneIOS, AndroidCertificationsCertificationsCertificationsCE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart BInterfaceN/AVideo InterfaceN/AAudio InterfaceN/ARS485N/AAlarm1 channel In/Out 1 channel Out: 300mA 12VDC 1 channel Out: 300mA 12VDCElectricalD12V,POE+ (IEEE 802.3at)/Class 4)	Web Viewer	IE, Chrome, Firefox, Safari		
Certifications       CE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart B         Interface       N/A         Audio Interface       N/A         Audio Interface       N/A         Alarm       1 channel In: SmA SVDC 1 channel Out: 300mA 12VDC         Electrical       D12V2/POE+ (IEEE 802.3at)/(Class 4)	Management Software	Smart PSS, DSS, DMSS		
CertificationsCE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart BInterfaceN/AVideo InterfaceN/AAudio Interface1/1 channel In/OutRS485N/AAlarm1 channel In: SmA 5VDC 1 channel Out: 300mA 12VDCElectricalD12V,PoE+ (IEEE 802.3at)/Class 4)	Smart Phone	IOS, Android		
Certifications     UL:UL60950-1 FCC: FCC Part 15 Subpart B       Interface     N/A       Video Interface     N/A       Audio Interface     1/1 channel In/Out       RS485     N/A       Alarm     1 channel In: SmA 5VDC 1 channel Out: 300mA 12VDC       Electrical     DC12V,PoE+ (IEEE 802.3at)/Class 4)	Certifications			
Video Interface     N/A       Audio Interface     1/1 channel In/Out       RS485     N/A       Alarm     1 channel In: 5mA 5VDC 1 channel Out: 300mA 12VDC       Electrical     DC12V,PoE+ (IEEE 802.3at)(Class 4)	Certifications	UL:UL60950-1		
Audio Interface     1/1 channel In/Out       RS485     N/A       Alarm     1 channel In: 5mA 5VDC 1 channel Out: 300mA 12VDC       Electrical        Power Supply     DC12V,PoE+ (IEEE 802.3at)/Class 4)	Interface			
RS485     N/A       Alarm     1 channel In: 5mA 5VDC 1 channel Out: 300mA 12VDC       Electrical       Power Supply     DC12V,PoE+ (IEEE 802.3at)(Class 4)	Video Interface	N/A		
Alarm     1 channel In: 5mA 5VDC 1 channel Out: 300mA 12VDC       Electrical       Power Supply     DC12V,PoE+ (IEEE 802.3at)(Class 4)	Audio Interface	1/1 channel In/Out		
Alarm 1 channel Out: 300mA 12VDC Electrical Power Supply DC12V,PoE+ (IEEE 802.3at)(Class 4)	RS485	N/A		
Power Supply DC12V,PoE+ (IEEE 802.3at)(Class 4)	Alarm			
	Electrical			
Power Consumption <15W(-ZAS), <13W(-VFAS)	Power Supply	DC12V,PoE+ (IEEE 802.3at)(Class 4)		
	Power Consumption	<15W(-ZAS), <13W(-VFAS)		

# Ultra Series | DH-IPC-HFWD5A1T-AZ

Environmental		
Operating Conditions	-30° C $^{\sim}$ +60° C (-22° F $^{\sim}$ +140° F) / Less than 95% RH	
Storage Conditions	-30° C $^{\sim}$ +60° C (-22° F $^{\sim}$ +140° F) / Less than 95% RH	
Ingress Protection	IP67	
Vandal Resistance	IK10(Optional)	
Construction		
Casing	Metal,Aluminum alloy	
Dimensions	244.1mm×79mm×75.9mm (9.61"×3.11"×2.99")	
Net Weight	0.815kg (1.80lb)	
Gross Weight	1.08kg (2.38lb)	

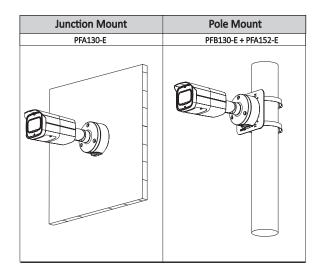
## Accessories

### **Optional:**

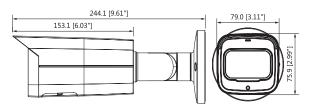




PFA130-E Junction Box PFA152-E Pole Mount



## Dimensions (mm/inch)





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