dahua TECHNOLOGY

DH-IPC-HDW1420S

4MP Network Small IR Eyeball Camera

.1/3" 4Megapixel progressive scan CMOS

.H.264+ & H.264 dual-stream encoding

. Max 20fps@4M(2688x1520)&25/30fps@ 3MP(2304×1296)

.DWDR, Day/Night(ICR), 3DNR, AWB, AGC, BLC

.Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS

.3.6mm fixed lens (2.8mm 6mm optional)

.Max. IR LEDs Length 30m

.IP67, PoE

System Overview

The IR Fixed Compact Eyeball camera delivers 4MP resolution with a choice of 2.8mm or 3.6mm lens options. The camera's elegant blend of aesthetics combined with its compact form factor provides an excellent choice for a variety of small to mid-size, indoor/outdoor applications at an affordable price.

Functions

True Day/Night

A day/night mechanical IR cut filter makes this camera ideal for applications with fluctuating lighting conditions, delivering color images during the day and automatically switching to monochrome as the scene darkens.

Regions of Interest

Regions of Interest (ROI) is a user defined feature that allows the operator to monitor specific areas of a scene while still maintaining overall situational awareness of less important areas.

Smart IR

With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts to the intensity of camera's infrared LEDs to compensate for the distance of an object. Smart IR technology prevents IR LEDS from whiting 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 30m (98ft).

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.

Protection

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

Supporting ±25% input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 8KV lightning rating provides protection against the camera and its structure from the effects of lightning.

Streaming

With a choice of unicast or multicast streaming, bandwidth-efficient viewing, recording and third-party video management can easily be achieved. Dual streaming enables bandwidth-efficient viewing and recording. Depending on the resolution and frame rate selected on the first stream, the second stream provides a copy at a lower resolution.

Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

Smart H.264+

Delivering high quality video without straining the network, Smart H.264+ is the optimized implementation of H.264. The Smart H.264+ encoding platform includes a scene adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction, providing a savings of up to 70% of bandwidth and storage when compared with standard H.264.

ONVIF PSIA

Technical Specification

Camera

Image Sensor	1/3" 4Megapixel progressive scan CMOS
Effective Pixels	2688(H) x1520(V)
RAM/ROM	256MB/16MB
Scanning System	Progressive
Minimum Illumination	0.1Lux/F2.0(Color), 0Lux/F2.0 (IR on)
S/N Ratio	More than 50dB
IR Distance	Distance up to 30m (98ft)
IR On/Off Control	Auto/ Manual
IR LEDs	18

Lens

Lens Type	Fixed
Mount Type	Board-in
Focal Length	2.8mm(3.6mm optional)
Max. Aperture	F2.0
Angle of View	H:106°/83°, V:60°/47°
Focus Control	Manual
Close Focus Distance	N/A

PTZ

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

Video

Compression	H.264+/ H.264
Streaming Capability	2 Streams
Resolution	4MP(2688×1520)/3M(2304×1296) 1080P(1920×1080)/720P(1280× 720)/ D1(704×576/704×480) / CIF(352×288/352×240)
Frame Rate	4M(1 ~ 20fps)/ 3MP(1 ~ 25/30fps) D1(1 ~ 25/30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264:32K ~10Mbps
Day/Night	Auto(ICR)/Color/B/W
BLC Mode	BLC / HLC / DWDR
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)
Smart IR	Support
Digital Zoom	16x
Flip	0°/90°/180°/270°
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

Audio

Compression	N/A

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
Interoperability	ONVIF,CGI, PSIA
Streaming Method	Unicast / Multicast
Max. User Access	10 Users/20 Users
Edge Storage	NAS Local PC for instant recording
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	N/A
Audio Interface	N/A
RS485	N/A
Alarm	N/A

Electrical

Power Supply	DC12V, PoE (802.3af) (Class 0)
Power Consumption	<5.1W/6.4W

Environmental

Operating Conditions	-30° C ~ +60° C (-22° F ~ +140°F) / Less than 90% RH
Strorage Conditions	-30° C ~ +60° C (-22° F ~ +140°F) / Less than 90% RH
Ingress Protection	IP67
Vandal Resistance	N/A

Construction

Casing	Metal + plastic
Dimensions	Φ108mm×84.9mm
Net Weight	0.23Kg(0.51lb)
Gross Weight	0.387Kg(0.85lb)

Ordering Information

Type	Part Number	Description
3MP camera	DH-IPC-HDW1420SP -0280B	4MP Network Small IR Eyeball Camera, DWDR, PAL
	DH-IPC-HDW1420SN -0280B	4MP Network Small IR Eyeball Camera, DWDR, NTSC
	IPC-HDW1420SP -0280B	4MP Network Small IR Eyeball Camera, DWDR, PAL
	IPC-HDW1420SN -0280B	4MP Network Small IR Eyeball Camera, DWDR, NTSC
	DH-IPC-HDW1420SP -0360B	4MP Network Small IR Eyeball Camera, DWDR, PAL
	DH-IPC-HDW1420SN -0360B	4MP Network Small IR Eyeball Camera, DWDR, NTSC
	IPC-HDW1420SP -0360B	4MP Network Small IR Eyeball Camera, DWDR, PAL
	IPC-HDW1420SN -0360B	4MP Network Small IR Eyeball Camera, DWDR, NTSC
Accessories (optional)	PFA152	Pole mount
	PFA136	Junction Box
	PFB203W	Wall mount

Accessories

Optional:
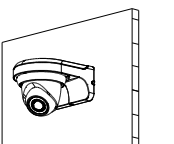
PFA136 Juntion Box

PFB203W Wall Mount

PFA152 Pole Mount

Junction Mount	Pole Mount
PFA136	PFB203W + PFA152
Wall Mount	
PFB203W	

Dimensions (mm/inch)

84.9 [3.34"]

⌀108 [⌀4.25"]
⌀84 [⌀3.31"]
3-⌀5 [⌀0.2"]