Dahua TECHNOLOGY

DH-IPC-HUM4231
2MP WDR Pinhole Network Camera

· 1/2.7" 2Megapixel progressive CMOS
· H.265& H.264 triple-stream encoding
· 25/30fps@1080P(1920×1080)
· WDR(120dB), Day/Night(Electronic), 3DNR, AWB, AGC, BLC
· Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
· 2.8 mm pinhole lens

System Overview

The pinhole camera delivers 2MP resolution with a 2.8mm pinhole lens for covert surveillance. 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.It can be easily installed in any indoor environment, making it ideally suited for a wide range of applications such as ATM, bank, store and office.

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.

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.

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.

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

ONVIF

Technical Specification

Camera

Image Sensor	1/2.7" 2Megapixel progresive CMOS
Effective Pixels	1920H)x1080(V)
RAM/ROM	256MB/128MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3~1/100000s
Minimum Illumination	0.007Lux/F2.4(Color,1/3s,30IRE) 0.04Lux/F2.4(Color,1/30s,30IRE) 0.004Lux/F2.4(B/W,1/3s,30IRE) 0.02Lux/F2.4(B/W,1/30s,30IRE)
S/N Ratio	More than 50dB
IR Distance	N/A
IR On/Off Control	N/A
IR LEDs	N/A

Lens

Lens Type	Fixed
Mount Type	Board-in
Focal Length	2.8mm
Max. Aperture	F2.4
Angle of View	H:105°, V:60°
Focus Control	Fixed
Close Focus Distance	N/A

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	63(207ft)	25(82ft)	13(43ft)	6(20ft)

Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	N/A

Intelligence

Event Trigger	Motion detection, Video tampering, Scene changing, Network disconnection, Ip address conflict, Illegal access, Storage anomaly
IVS	Tripwire, Intrusion, Object Abandoned/Missing
Advanced Intelligent Functions	Face Detection

Video

Compression	H.265/H.264/H.264B/H.264H/MJPEG(Sub Stream)
Smart Codec	Support H.265+/H.264+
Streaming Capability	3 Streams
Resolution	1080P(1920×1080)/960P(1280×960)/720P(1280×720)/D1(704×576/704×480)/VGA(640×480)/CIF(352×288/352×240)
Frame Rate	Main Stream: 1080p (1 ~ 25/30fps) Sub Stream: D1(1 ~ 25/30fps) Third Stream: 1080P(1 ~ 14/9fps)
Bit Rate Control	CBR/VBR

Bit Rate	H.265: 12K ~ 6400Kbps H.264: 32K ~ 8192Kbps
Day/Night	Auto(Electronic) / Color / B/W
BLC Mode	BLC / HLC / WDR(120dB)
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual
Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detection	Off / On (4 Zone, Rectangle)
Region of Interest	Off / On (4 Zone)
Electronic Image Stabilization (EIS)	N/A
Smart IR	N/A
Digital Zoom	16x
Flip	0°/90°/180°/270°
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

Audio

Compression	G.711a/G.711Mu/AAC/ G.726

Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	HTTP;HTTPS;TCP;ARP;RTSP;RTP;RTCP;UDP;SMTP;FTP;DHCP;DNS;DDNS;PPPoE;IPV4/V6;QoS;UPnP;NTP;Bonjour;IEEE 802.1X;Multicast;ICMP;IGMP;TLS
Interoperability	ONVIF Profile S, API
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, DMSS
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	1/1 channel In/Out
RS485	N/A
Alarm	N/A

Electrical

Power Supply	DC12V
Power Consumption	< 1.5W

Environmental

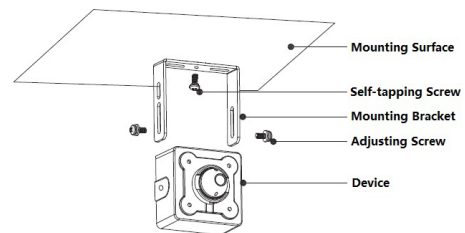|	
Operating Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
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Ingress Protection	N/A
Vandal Resistance	N/A

Construction

Casing	Metal
Dimensions	44.9mm × 57.7mm×34.35mm (1.77" x 2.27"x 1.35")
Net Weight	0.102Kg (0.225lb)
Gross Weight	0.145Kg (0.319lb)

Ordering Information

Type	Part Number	Description
2MP camera	DH-IPC-HUM4231P	2MP WDR Pinhole Network Camera,2.8mm, PAL
	DH-IPC-HUM4231N	42MP WDR Pinhole Network Camera,2.8mm,NTSC
	IPC-HUM4231P	2MP WDR Pinhole Network Camera,2.8mm,PAL
	IPC-HUM4231N	2MP WDR Pinhole Network Camera,2.8mm,NTSC

Installation

Dimensions (mm/inch)