

DH-IPC-HUM8441-E2

4 MP Covert Pinhole WizMind Network Camera-Main Box





Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, NVR, PTZ, XVR, Thermal and software platform which adopts industry-leading deep learning algorithms. Focusing on customer's requirements, WizMind provides precise, reliable and comprehensive AI solutions for verticals.

Series Overview

With deep learning algorithm, the separate pinhole camera supports functions such as perimeter protection and face recognition. Working with different types of lenses, the camera is widely applied to hidden or small scenes such as banks and advertising screens, meeting requirements in different installation scenes.

Functions

Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, Dahua smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

Perimeter Protection

With deep learning algorithm, Dahua Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion, fast moving, parking detection, loitering detection and gathering detection) are largely reduced.

Face Detection

Dahua Face Detection technology can detect the face in the image. With deep learning algorithm, the technology supports detecting, tracking, capturing and selecting the best face image, and then outputs face snapshot.

- Starlight 5-MP 1/2.7" CMOS image sensor, excellent low luminance performance and high definition of images.
- Outputs max. 2 channels 5 MP (2592 × 1944) @20 fps. 4 MP (2688 ×1520)@25/30 fps.
- H.265 codec allows high compression ratio and ultra-low bit rate.
- ROI, SMART H.264 +/H.265+, flexible coding, applicable to various bandwidth and storage environments.
- Rotation mode, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- Intelligent detection: Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection, people gathering, and face detection.
- · Object monitoring: abandoned object, missing object.
- Abnormality detection: Motion detection, privacy masking, scene changing, audio detection, no SD card, SD card space warning, SD card error, network disconnection, IP conflict, illegal access, and voltage detection
- Alarm: 2 in, 2 out; audio: 1 in, 1 out; RS-232; max. 256 G Micro SD card
- 12 VDC/PoE power supply facilitates installation.
- · Multiple Lens Unit optional.
- Require a Lens Unit to work together.













Face Attributes

With deep learning algorithm, the network camera can recognize face attributes, such as gender, age, expression, glasses, mouth mask, and beard.

Cyber Security

Dahua network cameras employ a series of security technologies, including security authentication and authorization, access control protocols, trusted protection, encrypted transmission and encrypted storage. These technologies improve the camera's defense against external cyber threats and prevent malicious programs from comprising the device.

Carmers	Technical Sp	ecificatio	on				Stream Capability	2 streams
Max. Renolution				,	5M (2592 × 1944); 4M (2688 × 1520); 3.6M (2560 ×			
Process 178 Ms			1/2.7" CMOS				Resolution	(1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 ×
Scanning System	Max. Resolution		2592 (H) × 1944 (V)				Bit Rate Control	
Saming System Programies Programies Programies Programies Process Min. Illumination Oo St. Neglic 2 (Cole 20 RE) Oo St. Neglic 2 (C	ROM		128 MB				Video Bit Rate	
Scanning System	RAM		1 GB					
Min.	Scanning System		Progressive					
Min.	Electronic Shutter Speed		Auto/Manual 1/3 s-1/100,000 s					
Lens Fived final Scene Self-adaptation Yes	Min. Illumination							
Lens Type Fixed-focal Cause Mount M12 Gain Control Manual, auto Manua	S/N Ratio							
Lens Type Lens Mount M12 Gain Control Manual, auto Motion Detection OFF/ON (4 area, rectampular) Motion Detection OFF/ON (4 area) Motion Detection OFF/ON (4	Lens						Scene Self-adaptation	
Focal Length	Lens Type		Fixed-focal				White Balance	
Max. Aperture F2.0	Lens Mount						Gain Control	Manual; auto
Field of View L1/L4: Horizontal: 96*; Vertical: 55*; Diagonal: 110* (3. Horizontal: 102*, Vertical: 55*; Diagonal: 121* (5. Horizontal: 102*, Vertical: 55*; Diagonal: 121* (5. Horizontal: 102*, Vertical: 55*; Diagonal: 115* (5. Horizontal: 105*) (5. Horizontal: 102*, Vertical: 55*; Diagonal: 115* (5. Horizontal: 105*) (5. Horizontal: 102*, Vertical: 55*; Diagonal: 115* (5. Horizontal: 105*) (5. Horizontal: 105*, Vertical: 55*; Diagonal: 115* (5. Horizontal: 105*) (5. Horizontal: 105*, Vertical: 55*; Diagonal: 115* (5. Horizontal: 105*) (5. Horizontal: 105*, Vertical: 55*; Diagonal: 115* (5. Horizontal: 105*) (5.	Focal Length		2.8 mm				Noise Reduction	3D NR
Section Sect	Max. Aperture		F2.0				Motion Detection	OFF/ON (4 areas, rectangular)
Iris Control Fixed Image Rotation	Field of View					Region of Interest (RoI)	Yes (4 areas)	
Lens			L5: Horizontal: 95°; Vertical: 54°; Diagonal: 115°				Defog	Yes
Lens Detect Observe Recognize Identify L1/L4-2.8 G1 m mm (200.13 tt) (80.05 ft) (40.03 tt) (200.1 tt) DORI Distance L5-2.8 G0 m 24 m 12 m 6 m (196.85 tt) (78.74 tt) (39.37 tt) (19.69 tt) L5-2.8 mm (200.07 ft) (91.69 ft) (40.68 ft) (20.34 ft) L5-2.8 mm (200.07 ft) (91.69 ft) (40.68 ft) (20.34 ft) Intelligence Tripwire, intrusion, fast moving (the three functions support the classification and accurate detection of vehicle and human), loitering detection, people gathering, and parting detection, of vehicle and human), loitering detection, optimal face snapshot upload, face enhancement, face exposure; face arting detection, early and expression of long-content place supports, great straining detection, straining detection, optimal face snapshot upload, face enhancement, face exposure; face arting expression of long-content place, samples to upload, face enhancement, face exposure; face arting calm, happhress, soldness, diagust, surprise, confusion and fear), face snapshot stages freal-time snapshot, and quality priority/; face angle filter; optimization	Iris Control						Image Rotation	
L1/L4-2.8	Close Focus Dist						Mirror	
DORI Distance Manual Compression Audio					-		Privacy Masking	8 areas
Lis-2.8 60 m 24 m 12 m 6 m m m (19.68 sft) (19.68 ft)	DODI Distance						Audio	
Intelligence IVS (Perimeter Protection) IVS (Perimeter Protection (perimeter), people gathering, scene changing, audio detection, people gathe	DORI DISTANCE						Audio Compression	G.711a; G.711Mu; PCM; G.726; G.723
Intelligence Tripwire, intrusion, fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection, people gathering, and parking detection. Abandoned object, missing object Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposuer; face exposuer; face attribute extraction including 6 attributes (gender, age, glasses, expressions, mask and beard) and 8 expressions (anger, calm, happiness, sadness, disgust, surprise, confusion and fear); face snapshot strategies (real-time snapshot, optimization snapshot, and quality priority); face angle filter; optimization inspanshot, and quality priority); face angle filter; optimization inspanshot, and quality priority; face angle filter; optimization and merging to event videos Video Video Compression H 265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream) Video Frame Rate Video Tipping Tripy in the function and detection of video tame functions and detection, video and detection, observed detection, observed adection, observed detection, observed charging detection, percent changing audio detection, voltage detection, percent changing, audio detection, observed observed observed observed observed observed observ							Alarm	
Tripwire, intrusion, fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection, people gathering, and parking detection, people gathering, and parking detection. Object Monitoring Abandoned object, missing object Face detection; track; snapshot optimization; optimization; optimal face snapshot upload; face enhancement; face exposure; face attribute extraction including 6 attributes (gender, age, glasses, expressions, mask and beard) and 8 expressions (anger, calm, happiness, sadness, disgust, surprise, confusion and fear); face snapshot set as face or one-inch photo; 3 snapshot strategies (real-time snapshot, optimization snapshot, and quality priority); face angle filter; optimization time setting Smart Search Wrideo Compression H.265; H.264; H.264B; MJPEG (only supported by the substream) Video Compression Main stream: 2592 x 1944 @(1–20 fps.), 2688 x 1520 @ Video Frame Rate Tripwire, intrusion, fast moving, wideo tampering, tripwire, intrusion, fast moving, missing object, bandoned object, parking detection, people gathering; scene changing, audio detection, and security exception lolitering detection, people gathering; scene changing, audio detection, people gathering; scene changing, audio detection, and security exception Network Network Network Network Port SDK and API Yes SDK and API	Intolligence	mm	(204.07π)	(91.69 π)	(40.68 π)	(20.34 π)		No SD card, SD card full, SD card error, network
Pace detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face attribute extraction including 6 attributes (gender, age, glasses, expressions, mask and beard) and 8 expressions (anger, calm, happiness, sadness, disgust, surprise, confusion and fearl; face snapshot star as face or one-inch photo; 3 snapshot strategies (real-time snapshot, optimization snapshot, and quality priority); face angle filter; optimization time setting Smart Search			support the classification and accurate detection of vehicle and human); loitering detection, people				Alarm Event	video tampering, tripwire, intrusion, fast moving, missing object, abandoned object, parking detection, loitering detection, people gathering; scene changing, audio detection, voltage detection, external alarm, face
Face Detection Pace detection Pace Pac	Object Monitori	ng	Abandoned object, missing object			Naturale	detection, and security exception	
Face Detection Solid and Apple Solid and Security							DI AF /10/100 Page T\	
surprise, confusion and fear); face snapshot set as face or one-inch photo; 3 snapshot strategies (real-time snapshot, optimization snapshot, and quality priority); face angle filter; optimization time setting Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos Video Video Compression H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream) Smart Codec Smart L.265+ Smart H.265+ Smart H.264+ Video Frame Rate Video Frame Rate Network Protocol IPv4; IPv6; HTTP;TCP; UDP; ARP; RTCP; RTMP; SMTP; SMTP; STPT; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP Network Protocol IPv4; IPv6; HTTP;TCP; UDP; ARP; RTCP; RTMP; SMTP; RTCP; RTMP; SMTP; SMTP; STPT; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP Interoperability ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genete User/Host 20 (Total bandwidth: 64 M) IE: IE8, IE9, and IE11 Chrome Firefox Main stream: 2592 × 1944 @(1–20 fps), 2688 × 1520 @ (1–25/30 fps) sub stream: 704 × 576 @(1–25 fps)/704 × 480 @ (1–30 Mobile Client iOS: Android			(gender, age, glasses, expressions, mask and beard) and					· · · /
snapshot, optimization snapshot, and quality priority); face angle filter; optimization time setting Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos Video Video Compression H.265; H.264; H.264B; MJPEG (only supported by the sub stream) Smart Codec Main stream: 2592 × 1944 @(1-20 fps), 2688 × 1520 @ (1-25/30 fps) sub stream: 704 × 576 @(1-25 fps)/704 × 480 @ (1-30 Mobile Client Network Protocol SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPOE; SNMP ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genete User/Host 20 (Total bandwidth: 64 M) Storage FTP; SFTP; Micro SD card (support max. 256 G); NAS IE: IE8, IE9, and IE11 Chrome Firefox Management Software Smart PSS; DSS; DMSS Mobile Client Mobile Client iOS: Android	Face Detection		surprise, confusion and fear); face snapshot set as face			SDK and API		
Smart Search intelligent search, event extraction and merging to event videos Video Video Compression H.265; H.264; H.264B; MJPEG (only supported by the sub stream) Smart Codec Smart H.265+ Smart H.264+ Video Frame Rate Main stream: 2592 × 1944 @(1–25 fps)/704 × 480 @ (1–30 Video Genete Interoperability Storage FTP; SFTP; Micro SD card (support max. 256 G); NAS IE: IE8, IE9, and IE11 Chrome Firefox Management Software Management Software Smart PSS; DSS; DMSS Mobile Client Interoperability World Frome S, Profile G, Profile 1); CG; P2P; Milestone; Genete Wilestone; Genete Whilestone; Genete Whilestone; Genete Whilestone; Genete Storage FTP; SFTP; Micro SD card (support max. 256 G); NAS IE: IE8, IE9, and IE11 Chrome Firefox Management Software Smart PSS; DSS; DMSS			snapshot, optimization snapshot, and quality priority);				Network Protocol	SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP;
Video Compression H.265; H.264; H.264B; MJPEG (only supported by the sub stream) Storage FTP; SFTP; Micro SD card (support max. 256 G); NAS Smart Codec Smart H.265+ Smart H.264+ Browser Chrome Firefox Video Frame Rate Main stream: 2592 × 1944 @(1–20 fps), 2688 × 1520 @ (1–25/30 fps) sub stream: 704 × 576 @(1–25 fps)/704 × 480 @ (1–30 Management Software Smart PSS; DSS; DMSS Video Frame Rate Mobile Client iOS: Android	Smart Search		intelligent search, event extraction and merging to event				Interoperability	
Video Compression the sub stream) IE: IE8, IE9, and IE11 Smart Codec Smart H.265+ Smart H.264+ Browser Chrome Firefox Wideo Frame Rate Main stream: 2592 × 1944 @ (1–20 fps), 2688 × 1520 @ (1–25/30 fps) sub stream: 704 × 576 @ (1–25 fps)/704 × 480 @ (1–30 Management Software Smart PSS; DSS; DMSS Wobile Client iOS: Android	Video						User/Host	20 (Total bandwidth: 64 M)
Smart Codec Smart H.265+ Smart H.264+ Browser IE: IE8, IE9, and IE11 Chrome Firefox Video Frame Rate Main stream: 2592 × 1944 @ (1–20 fps), 2688 × 1520 @ (1–25/30 fps) sub stream: 704 × 576 @ (1–25 fps)/704 × 480 @ (1–30 Management Software Smart PSS; DSS; DMSS Video Frame Rate Mobile Client iOS: Android	Video Compression						Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS
Video Frame Rate (1–25/30 fps) sub stream: 704 × 576 @(1–25 fps)/704 × 480 @ (1–30 Mobile Client iOS: Android			Smart H.265+				Browser	Chrome
sub stream: 704 × 576 @(1–25 fps)/704 × 480 @ (1–30 Mobile Client iOS: Android							Management Software	Smart PSS; DSS; DMSS
	Video Frame Rat	te	sub stream: 704 × 576 @(1–25 fps)/704 × 480 @ (1–30			Mobile Client	iOS; Android	

WIZ Mind	DH-IPC-HUM8441-E2	
Cyber Security	Video encryption; Firmware encryption; Configuration encryption; Digest; WSSE; Account lockout; Security logs; IP/MAC filtering; Generation and importing of X.509 certification; syslog; HTTPS; 802.1x; Trusted boot; Trusted execution; Trusted upgrade	
Certification		
Certifications	CE-LVD: EN62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU; FCC:47 CFR FCC Part 15, Subpart B	
Port		
Audio Input	1 channel (3.5 mm JACK port)	
Audio Output	1 channel (3.5 mm JACK port)	
Alarm Input	2 channels in: 5 mA 3-5 VDC	
Alarm Output	2 channels out: 1,000 mA 30 VDC/500 mA 50 VDC	
Power		
Power Supply	12 VDC/PoE(802.3af)	
Power Consumption	Basic: 3.2W (12 VDC); 5.1W (PoE) Max. (Max. Resolution+ Intelligence): 4.7 W (12 VDC); 7.2 W (PoE)	
Environment		
Operating Temperature	-40 °C to +60 °C (-40 °F to 140 °F)	
Operating Humidity	≤ 95%	
Storage Temperature	-40 °C to +60 °C (-40 °F to 140 °F)	
Protection	IP66 (L3)	

Structure

Casing	Metal
Product Dimensions	E2: 110 mm × 83 mm × 24 mm (4.33" × 3.27" × 0.94") L1: Φ30.5 mm × 48.7 mm (Φ1.20" × 1.92") L3: Φ30.5 mm × 57.6 mm (Φ1.20" × 2.27") L4: 35 mm × 35 mm × 26.7 mm (1.38" × 1.38" × 1.05") L5: 35 mm × 35 mm × 28.4 mm (1.38" × 1.38" × 1.12")
Net Weight	210 g (0.5 lb)
Gross Weight	376 g (0.8 lb)

Ordering Information				
Туре	Model	Description		
4 MP Camera	DH-IPC- HUM8441-E2	4 MP Covert Pinhole WizMind Network Camera-Main Box		
	IPC-HUM8441-L1- 0280B	4 MP Covert Pinhole WizMind Network Camera-Lens Unit		
Accessories	IPC-HUM8441-L3- 0280B	4 MP Covert Pinhole WizMind Network Camera-Lens Unit		
(optional)	IPC-HUM8441-L4- 0280B	4 MP Covert Pinhole WizMind Network Camera-Lens Unit		
	IPC-HUM8441-L5- 0280B	4 MP Covert Pinhole WizMind Network Camera-Lens Unit		

Accessories

Optional:







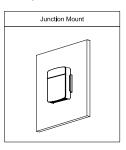
IPC-HUM8441-L1-0280B Separate Pinhole Lens

3 IPC-HUM8441-L3-0280B Separate Pinhole Lens

IPC-HUM8441-L4-0280B Separate Pinhole Lens



IPC-HUM8441-L5-0280B Separate Pinhole Lens



Junction Mount	Ceiling Mount

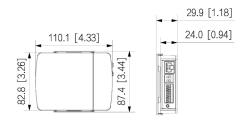
Plane Mount	Ceiling Mount
	35

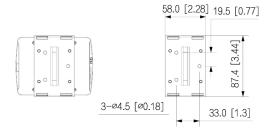
Plane Mount	Ce ili ng Mount

Plane Mount	Ceiling Mount

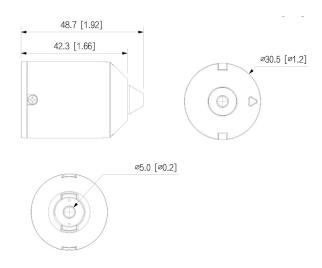
Dimensions (mm[inch])

DH-IPC-HUM8441-E2

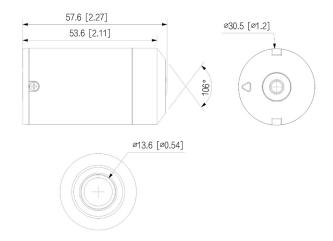




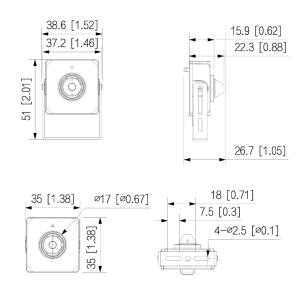
IPC-HUM8441-L1-0280B



IPC-HUM8441-L3-0280B



IPC-HUM8441-L4-0280B



IPC-HUM8441-L5-0280B



