

DH-IPC-HF5242E-E-MF

2MP Pro Al Bullet Network Camera





System Overview

Pro AI series contains Face Detection, Perimeter Protection and People Counting functions. Powered by deep-learning Artificial Intelligence algorithms, significantly improved accuracy. Active Deterrence and Full Color camera are also in this series. Meanwhile, the series features starlight and smart IR technology. This series fully protected from dust and water.

Functions

Face Detection

Face Detection is a software application that automatically captures faces from within a digital image or a video frame from a video source. Dahua cameras use advanced deep learning algorithms and are trained by a large number of face data sources, enabling the camera to locate faces quickly and accurately from the video source and capture facial images.

Face Attributes

Through the use of deep learning algorithms to analyze facial images, Dahua cameras can extract six facial attributes from each frame, including Age, Gender, Expression (Jolly/Surprise/Normal/Rage/Sad/Disgusted/Confused/Frightened), Glasses, Mouth Mask, Moustache & Beard. Customers can acquire data of interest via face attributes statistics.

Perimeter Protection

Dahua's Perimeter Protection functions significantly improved accuracy. Perimeter Protection reduces false alarms and decreases pixel count requirements for object detection. Perimeter Protection features custom tripwires based on object type for automation in limited access areas such as pedestrian or vehicle-only zones. This combination of advanced AI analytics and real-time alerts to a desktop or to a mobile client reduces system requirements and resources resulting in greater surveillance system efficiency.

- · 1/1.8" 2Megapixel progressive scan CMOS
- · H.265 & H.264 triple-stream encoding
- \cdot 50/60 fps@1080 (1920 × 1080)
- · WDR (140 dB), Day/Night (ICR), 3D DNR,AWB,AGC,BLC
- · Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS
- · 2/1 Alarm in/out, 1/1 audio in/out (Built-in MIC)
- · Auto back focus(ABF)
- · Micro SD memory













People Counting

People Counting function uses advanced image processing technology to capture depth information from within images. The camera pairs this information with deep learning algorithms to analyze and detect human bodies and track target objects in real time. The camera provides statistics for separate individuals' entrance and exit with up to 95% counting accuracy.

Metadata

Metadata is feature attribute information extracted from a target object which can be used for data retrieval. Dahua face detection camera can extract six facial attributes and output the metadata for analysis.

ePoE technology

The ePoE technology of Dahua, designed internally, adopts advanced 2D-PAM3 coding modulation from physical layer, and realizes full duplex transmission over 800 meters at the speed of 10Mbps, or 300 meters at the speed of 100Mbps via Cat 5 or coaxial cable media. Besides, it supports PoE and PoC power supply technology which has greatly simplified construction and wiring. Dahua ePoE technology offer a new way to accomplish long distance transmission between IP camera and network switch. It allows more flexible surveillance system design, improves reliability and saves construction and wiring cost.



| Camera 4800/CE (252 × 280752 × 240) timage Sensor 11.6° 2Megapose progresove scan CMOS Frame Rate Main Stream1200 x 1000 (15 +5 900 fot 5 | Technical Specification | | Decelution | 1080P (1920 × 1080)/1.3M (1280 × 960)/720P |
|--|--------------------------|--|---------------------|---|
| | Camera | | Resolution | (1280 × 720)/D1 (704 × 576/704 × 480)/VGA (640 × 480)/CIF (352 × 288/352 × 240) |
| ### Effective Parks 1300 pt x 1080 (v) Frame Hate AMM/ROM 1080 25 MB Through Frame Hate AMM/ROM 1080 25 MB Through Frame Hate Frame Hate Through Frame Hate | Image Sensor | 1/1.8" 2Megapixel progressive scan CMOS | | Main Stream:1920 × 1080 (1 fps-50/60 fps) |
| Sanning System | Effective Pixels | 1920 (H) × 1080 (V) | Frame Rate | |
| Electronic Shutter Speed | RAM/ROM | 1 GB/128 MB | | Third Stream: 1080P (1 fps–16 fps) |
| Minimum Illumination 0 0002Lvm@F1.5 Day/Night | Scanning System | Progressive | Bit Rate Control | CBR/VBR |
| LED Distance | Electronic Shutter Speed | Auto/Manual, 1/3 s–1/100000 s | Bit Rate | · · |
| BEC Mode Richard White Balance Richard White Balance Auto/Manual | Minimum Illumination | 0.002Lux@F1.5 | Day/Night | Auto(ICR)/Color/B/W |
| Lens Lens Type N/A Motion Detection Off/On (4 Zone, Rectangle) Lens Type N/A Motion Detection Off/On (4 Zone, Rectangle) Mount Type C/CS Region of Interest Off/On (4 Zone, Rectangle) Mount Type C/CS Region of Interest Off/On (4 Zone) Focal Length N/A Parture N/A Region of Interest Off/On (4 Zone) Focal Length N/A Region of Interest Off/On (4 Zone) Focal Length N/A Parture N/A Parture N/A Parture Type N/A Parture Type N/A Parture Type N/A Parture Type Type N/A Parture Type N/A Parture Type N/A Parture Type N/A Parture | LED Distance | N/A | BLC Mode | BLC/HLC/WDR (140 dB) |
| Lens Lens Type N/A Mount Type C/CS Mount Type C/CS Focal Length N/A Mount Type C/CS Focal Length N/A Max. Aperture N/A Angle of View N/A Aperture Type N/A A | LED On/Off Control | N/A | White Balance | Auto/Natural/Street Lamp/Outdoor/Manual |
| Motion Detection | LEDs | N/A | Gain Control | Auto/Manual |
| Mount Type C/CS Region of Interest Off/On (4 Zone) Focal Length N/A Max. Aperture N/A Angle of View N/A Aperture Type N/A Aperture Type N/A Aperture Type N/A Close Focus Distance N/A Aperture Type N/A Artificial Intelligence Face Detection Support face image capture Perimeter Protection face image capture Protocol Face image imag | Lens | | Noise Reduction | 3D DNR |
| Focal Length N/A Max. Aperture N/A Angle of View N/A Aperture Type N/A Artificial Intelligence Face Detection Support face image capture Support face image capture Support face image capture Support face image capture Face Attributes Support face image capture Face Att | Lens Type | N/A | Motion Detection | Off/On (4 Zone, Rectangle) |
| Max. Aperture N/A Angle of View N/A Angle of View N/A Aperture Type N/A Close Focus Distance N/A Pan/Tilt/Rotation Pan/Tilt/Rotation Range N/A Artificial Intelligence Face Detection Support face image capture Face Attributes Support face image capture Support face image capture Face Attributes Support face im | Mount Type | c/cs | Region of Interest | Off/On (4 Zone) |
| Angle of View N/A Aperture Type N/A Aperture Type N/A Close Focus Distance N/A Pan/Tilt/Rotation Pan/Tilt/Rotation Range N/A Artificial Intelligence Face Detection Support face image capture Support 6 kinds of face attributes extraction: Age, Gender, Expression (Jolly, Surprise, Normal, Rage, Sad) Digusted, Continued, Frightenedin, Glasses, Mouth Mask, Moustache & Beard Tippiver, Intrusion (Recognition of vehicle and people, fast moving, loitering detection, parking detection and people gathering Support 1 accesses independent detection, 4 accesses independent detection, 4 access, Storage anomaly General Intelligence Face Intelligence White Access, Storage anomaly Motion detection, Video tampering, Scene changing, Network disconnection, IP address conflict, illegal Access, Storage anomaly General Intelligence Web Viewer Firefox, Safari (versions newer than E8), Chrome, Firefox, Safari (versions newer than E8), Chrome, Firefox, Safari (versions newer than Safari: Management Software Smart Codec Yes Smart Codec Yes Smart Codec Yes Smart Codec Protocol Aptimizer Access, Storage anomaly Motion detection, Video tampering, Scene changing, Network disconnection, IP address conflict, illegal Access, Storage anomaly Web Viewer Eleversions newer than E8), Chrome, Firefox, Safari (versions newer than Safari: Management Software Smart PSS, DSS, DMSS Smart Pohoe Certifications | Focal Length | N/A | _ | Yes |
| Aperture Type N/A Close Focus Distance N/A Pan/Tilt/Rotation Pan/Tilt/Rotation Pan/Tilt/Rotation Range N/A Artificial Intelligence Face Detection Support face image capture Support 6 kinds of face attributes extraction: Age, Gender, Expression (Jolly, Surprise, Normal, Rage, Sad), Dispusted, Conflice, Frightenedy, Glasses, Mouth Mask, Moustache & Beard Mask, Moustache & Beard Mask, Moustache & Beard Protection Perimeter Protection Tippiwine, Intrusion (Recognition of vehicle and people, fast moving, lottering detection, parking detection and people gathering Support Line crossing/Region/Queueing people counting: Support a cacesses independent detection, 4 areas independent detection General Intelligence Event Trigger Motion detection, Video tampering, Scene changing, Network disconnection, IP address conflict, lilegal Access, Storage anomaly General Intelligence Object Abandoned/Missing Motion detection, Video tampering, Scene changing, Network disconnection, IP address conflict, lilegal Access, Storage anomaly General Intelligence Ves Video L'Espisable, Chandoned/Missing L'Espisable, Chandoned/Missing Motion detection, Video tampering, Scene changing, Network disconnection, IP address conflict, lilegal Access, Storage anomaly General Intelligence Ves Video Compression L'Espisable, Caces, Storage anomaly Micro SD card (support max. 256 G) Management Software Smart PSS, DSS, DMSS Smart Pone IOS, Android Certifications | Max. Aperture | N/A | Smart IR | N/A |
| Flip 0/90/1807/270° Close Focus Distance N/A Mirror Off/On | Angle of View | N/A | Defog | Yes |
| Pan/Tilt/Rotation Pan/Tilt/Rotation Range Pan/Tilt/Rotation Range N/A Artificial Intelligence Face Detection Support face image capture Support 6 kinds of face attributes extraction: Age, Gender, Expression (Jolly, Surprise, Normal, Rage, Sad), Disgusted, Confused, Frightened), Glasses, Mouth Mask, Moustache & Beard Primeter Protection Tripwire, intrusion (Recognition of vehicle and people), fast moving, Johering detection, parking detection, and people gathering Support Line crossing/Region/Queueing people counting; Support 4 accesses independent detection, 4 areas independent detection Event Trigger Motion detection, Video tampering, Scene changing, Network disconnection, il Paddress conflict, Illegal Access, Storage anomaly Video Video Video Mask, H.265, H.264, H.264B, H.264H, MJPEG (sub stream) Mirror Off/On (4Area, Rectangle) Audio Compression Grilla, G.711Mu, G.726, AAC, G.723 Network Ethernet R.4-45 (10/100 Base-T) Network Ethernet R.4-45 (10/100 Base-T) Protocol RPM-SHTP;FTP;STP;DuDP;ARP;TTP;TTP;TTP;DuDP;ARP;TTP;TTP;TTP;TTP;DuDP;ARP;TTP;TTP;TTP;TTP;TTP; | Aperture Type | N/A | Flip | 0°/90°/180°/270° |
| Pan/Tilt/Rotation Range N/A Artificial Intelligence Face Detection Support face image capture Support face image capture Face Attributes Support face image capture Support face image capture Network Ethernet RJ-45 (10/100 Base-T) Network Ethernet RJ-45 (10/100 Base-T) Protocol Artificial intelligence Protocol Trijowire, intrusion (Recognition of vehicle and people), fast moving, loitering detection, parking detection and people gathering Support Line crossing/Region/Queueing people counting; Support 4 accesses independent detection, 4 areas independent detection Motion detection, Video tampering, Scene changing, Network disconnection, IP address conflict, illegal Access, Storage anomaly General Intelligence Diect Abandoned/Missing Protocol Motion detection, Video tampering, Scene changing, Network disconnection, IP address conflict, illegal Access, Storage anomaly Video Video Compression Protocol RITMP-SMTP-FTP-STFD-DICP-DNS:DNDS:OND-SCENE CAPT CAPT CAPT CAPT CAPT CAPT CAPT CAPT | Close Focus Distance | N/A | Mirror | Off/On |
| Artificial Intelligence Face Detection Support face image capture Support 6 kinds of face attributes extraction: Age, Gender, Expression (Jolly, Surprise, Normal, Rage, Sad, Disgusted, Confused, Frightened), Glasses, Mouth Mask, Moustache & Beard Tripwire, intrusion (Recognition of vehicle and people, fast moving, Joitering detection, parking detection and people gathering People Counting Support Line crossing/Region/Queueing people counting; Support A accesses independent detection, 4 areas independent detection Motion detection, Video tampering, Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly Video Video Audio Compression Gorneral Intelligence Network Ethernet RJ-45 (10/100 Base-T) Network Ethernet RJ-45 (10/100 Base-T) Protocol RTMP;SMTP;FTP;SFTP;DHCP;DNS;DNS;ONS;DNS;DNS;DNS;DNS;DNS;DNS;DNS;DNS;DNS;D | Pan/Tilt/Rotation | | Privacy Masking | Off/On (4 Area, Rectangle) |
| Face Detection Support face image capture Support 6 kinds of face attributes extraction: Age, Gender, Expression (Jolly, Surprise, Normal, Rage, Sad, Disgusted, Confused, Frightened), Glasses, Mouth Mask, Moustache & Beard Tripwire, Intrusion (Recognition of vehicle and people), fast moving, Joitering detection, parking detection and people gathering People Counting Support Line crossing/Region/Queueing people counting; Support 4 accesses independent detection, 4 areas independent detection Event Trigger Motion detection, Video tampering, Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly Heat Map Yes Management Software Smart Phone Compression G.711a, G.711Mu, G.726, AAC, G.723 Network RI-45 (10/100 Base-T) Fethernet RJ-45 (10/100 Base-T) Fethernet RJ-45 (10/100 Base-T) Frys,ITTP; HTTP; TCP; IDP; APP; RDP; PDP; APP; RDP; APP; APP; PDP; APP; APP; APP; APP; A | Pan/Tilt/Rotation Range | N/A | Audio | |
| Support 6 kinds of face attributes extraction: Age, Gender, Expression (Jolly, Surprise, Normal, Rage, Sad, Disgusted, Confused, Frightened), Glasses, Mouth Mask, Moustache & Beard Perimeter Protection Perimeter Protection People Counting Support Line crossing/Region/Queueing people counting; Support 4 accesses independent detection, 4 areas independent detection Find the detection, Video tampering, Scene changing, Network disconnection, I paddress conflict, Illegal Access, Storage anomaly General Intelligence Web Viewer Heat Map Yes Network RIMP; Multicast; CMP; IGMP; NFS; PPD6; RD2, PPOtocol RITMP; SMTP; FTP; FTP; DHCP; DNS; DDNS; QNTP; Multicast; ICMP; IGMP; NFS; PPD6; RD2, PPOtocol RITMP; SMTP; FTP; FFTP; DHCP; DNS; DDNS; QNTP; Multicast; ICMP; IGMP; NFS; PPD6; RD2, PPOtocol RITMP; SMTP; FTP; FTP; DHCP; DNS; DDNS; QNTP; Multicast; ICMP; IGMP; NFS; PPD6; RD2, PPOtocol RITMP; SMTP; FTP; FTP; DHCP; DNS; DDNS; QNTP; Multicast; ICMP; IGMP; NFS; PPD6; RD2, PPOtocol RITMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QNTP; Multicast; ICMP; IGMP; NFS; PPD6; RD2, PPOtocol RITMP; SMTP; SMTP; SMTP; DHCP; DNS; DNS; QNS; QNS; QNS; QNS; QNS; QNS; QNS; Q | Artificial Intelligence | | Compression | G.711a, G.711Mu, G.726, AAC, G.723 |
| Face Attributes Gender, Expression (Jolly, Surprise, Normal, Rage, Sad, Disgusted, Confused, Frightened), Glasses, Mouth Mask, Moustache & Beard Perimeter Protection Tripwire, intrusion (Recognition of vehicle and people), fast moving, Joitering detection, parking detection and people gathering Support Line crossing/Region/Queueing people counting: Support 4 accesses independent detection, 4 areas independent detection Feneral Intelligence Wolfon detection, Video tampering, Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly General Intelligence Object Abandoned/Missing Web Viewer Web Viewer Web Viewer IE (versions newer than 1EB), Chrome, Firefox, Safari (versions newer than 1EB), Chrome, Firefox, Safari (versions newer than Safari: Management Software Smart Phone Compression Method Certifications Ethernet RJ-45 (10/100 Base-T) IPv4;IPv6;IHTP;HTTP;HTTP;HTTP;HTTP;HTTP;HTTP;HTTP | Face Detection | | Network | |
| Perimeter Protection Tripwire, intrusion (Recognition of vehicle and people), fast moving, loitering detection, parking detection and people gathering Support Line crossing/Region/Queueing people counting; Support 4 accesses independent detection, 4 areas independent detection General Intelligence Event Trigger Motion detection, Video tampering, Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly General Intelligence Object Abandoned/Missing Heat Map Yes Video Compression H.265,H.264,H.264B,H.264H, MJPEG (sub stream) Tripwire, intrusion (Recognition of vehicle and people), [RTMP;MRTP;FTP;SFTP,DDN;DN;NP;PPDPE;802, STRP;EDPE;B02,DDN;QDN;QDN;QDN;QDN;QDN;QDN;QDN;QDN;QDN; | Face Attributes | Gender, Expression (Jolly, Surprise, Normal, Rage, Sad, Disgusted, Confused, Frightened), Glasses, Mouth | Ethernet | RJ-45 (10/100 Base-T) |
| Support Line crossing/Region/Queueing people counting; Support 4 accesses independent detection, 4 areas independent detection General Intelligence Event Trigger Motion detection, Video tampering, Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly General Intelligence Object Abandoned/Missing Web Viewer Wideo Video Video Max. User Access 20 Users Edge Storage NAS;FTP;SFTP Micro SD card (support max. 256 G) Web Viewer Management Software Smart PSS, DSS, DMSS Video Certifications Certifications CE-LVD: EN60950-1 | Perimeter Protection | Tripwire, intrusion (Recognition of vehicle and people), fast moving, loitering detection, parking detection and | Protocol | IPv4;IPv6;HTTP;HTTPS;TCP;UDP;ARP;RTP;RTSP;RTC ;RTMP;SMTP;FTP;SFTP;DHCP;DNS;DDNS;QoS;UPnF NTP;Multicast;ICMP;IGMP;NFS;PPPoE;802.1x;SNM |
| General Intelligence Motion detection, Video tampering, Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly General Intelligence Object Abandoned/Missing Web Viewer | People Counting | Support Line crossing/Region/Queueing people | Interoperability | ONVIF (Profile S/Profile G/Profile T), CGI, Milstone, Genetec, P2P |
| Event Trigger Motion detection, Video tampering, Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly General Intelligence Object Abandoned/Missing Web Viewer Heat Map Ves Management Software Smart PSS, DSS, DMSS Video Compression H.265,H.264,H.264B,H.264H, MJPEG (sub stream) Certifications CE-LVD: EN60950-1 | 1 0 | | Streaming Method | Unicast/Multicast |
| Event Trigger Network disconnection, IP address conflict, Illegal Access, Storage anomaly General Intelligence Object Abandoned/Missing Web Viewer IE (versions newer than IE8), Chrome, Firefox, Safari (versions newer than Safari : Management Software Video Video Smart Phone Compression H.265,H.264,H.264B,H.264H, MJPEG (sub stream) Certifications CE-LVD: EN60950-1 | General Intelligence | | Max. User Access | 20 Users |
| Heat Map Yes Management Software Smart PSS, DSS, DMSS Video Smart Phone iOS, Android Compression H.265,H.264,H.264B,H.264H, MJPEG (sub stream) Certifications CE-LVD: EN60950-1 | Event Trigger | Network disconnection , IP address conflict, Illegal | Edge Storage | |
| Heat Map Yes Management Software Smart PSS, DSS, DMSS Video Smart Phone iOS, Android Compression H.265,H.264,H.264B,H.264H, MJPEG (sub stream) Certifications Smart Codec Yes CE-LVD: EN60950-1 | General Intelligence | Object Abandoned/Missing | Web Viewer | |
| Video Smart Phone iOS, Android Compression H.265,H.264,H.264H, MJPEG (sub stream) Certifications Smart Codec Yes CE-LVD: EN60950-1 | Heat Map | Yes | Management Software | |
| Compression H.265,H.264,H.264B,H.264H, MJPEG (sub stream) Certifications Smart Codec Yes CE-LVD: EN60950-1 | Video | | - | |
| Sitial Codec 165 | Compression | | | , |
| | | | Certifications | CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU |

Interface

| Audio Interface | 1/1 channel In/Out, Built-in MIC |
|-----------------|--|
| RS485 | 1 port |
| Alarm | 2 channel In: 5mA 5V DC 1 channel Out: 300mA 12V DC |

Electrical

| Power Supply | DC 12V (±25%), AC 24V (±25%), PoE (802.3af) (Class 0) |
|-------------------|---|
| Power Consumption | <9.2W |

Environmental

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

Construction

| Casing | Metal |
|--------------|---|
| Dimensions | 135.4 mm × 74.4 mm × 65.5 mm (5.33" × 2.93" × 2.58") |
| Net Weight | 0.53 kg (1.17 lb) |
| Gross Weight | 0.62 kg (1.37 lb) |

Ordering Information Type Part Number Description DH-IPC-HF5242EP-2MP Pro Al Bullet Network Camera, PAL E-MF DH-IPC-HF5242EN-2MP Pro Al Bullet Network Camera, NTSC E-MF 4MP camera IPC-HF5242EP-E-MF 2MP Pro Al Bullet Network Camera, PAL IPC-HF5242EN-E-MF 2MP Pro Al Bullet Network Camera, NTSC PFB110W Ceiling Mount Accessories (optional) PFB121W Wall Mount

Accessories

Optional:



| Wall Mount | Wall/Ceiling/Plane Mount |
|------------|--------------------------|
| PFB121W | PFB110W |
| | |

Dimensions (mm[inch])





