# IMAX-IPC-HFW5442T-ASE-NI

## 4MP WDR Bullet AI Network Camera

- · 1/1.8” 4Megapixel progressive scan CMOS
- · H.265 & H.264 triple-stream encoding
- · 25/30 fps@2688 × 1520, 50/60 fps@1080 (1920 × 1080)
- · WDR (140 dB), Day/Night (Electronic), 3D DNR, AWB, AGC, BLC
- · Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS
- · 3.6 mm fixed lens
- · 1/1 Alarm in/out, 1/1 audio in/out
- · Micro SD memory, IP67

Imaxcampro AI series products adopt the most advanced AI technologies, including deep learning algorithms that primarily target people and vehicles, which provides higher flexibility and accuracy for end-users. This enables the Imax AI series to offer various advanced applications such as Face Recognition, ANPR, Metadata, People Counting, traffic data statistics, etc.The complete lineup of Imax AI includes network (PTZ) cameras, network video recorders, servers, and platform management products. Beyond seeing the world, the power of AI allows devices to perceive the environment and understand the world in a better way.

## System Overview

Pro AI series contains Face Capture, 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 technology. This series fully protected from dust and water, certified to IP67 standard.

## Functions

### Face Capture

Face capture is a software application that automatically captures faces from within a digital image or a video frame from a video source.Imax 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.

### Perimeter Protection

Imaxcampro 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.

### 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.

### ePoE technology

The ePoE technology of Imaxcampro, 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. Imaxcampro 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.

### Protection(IP67, wide voltage)

The camera allows for ±30% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV 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.

### Full-color Starlight

The camera adopts F1.0 large aperture lens and 1/1.8" high performance sensor. With higher amount of absorbed light and advanced image processing algorithm, the camera presents an impressive low light performance with an exceptional balance between noise reduction and the blur of moving object.

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 1/1.8" 4Megapixel progressive scan CMOS |
| Effective Pixels | 2688 (H) × 1520 (V) |
| RAM/ROM | 1 GB/128 MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual, 1/3 s–1/100000 s |
| Minimum Illumination | 0.0002Lux@ F1.0 |

### Lens

| | | | | | |
|---|---|---|---|---|---|
| Lens Type | Fixed | | | | |
| Mount Type | Board-in | | | | |
| Focal Length | 3.6 mm | | | | |
| Max. Aperture | F1.0 | | | | |
| Angle of View | H: 93°, V: 50° | | | | |
| Optical Zoom | N/A | | | | |
| Aperture Type | Fixed | | | | |
| Close Focus Distance | 2.0 m (6.56 ft) | | | | |
| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
| | 3.6mm | 70 m (230 ft) | 28 m (91 ft) | 14m(46ft) | 7m(23ft) |

### Pan/Tilt/Rotation

| | |
|---|---|
| Pan/Tilt/Rotation Range | Pan: 0°–360°; Tilt: 0°–90°; Rotation: 0°–360° |

### Artificial Intelligence

| | |
|---|---|
| Face Capture | Support face image capture |
| Perimeter Protection | Tripwire, Intrusion (Human & Vehicle classification) |
| People Counting | 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 |

### Video

| | |
|---|---|
| Compression | H.265+, H.265, H.264+, H.264, H.264B, H.264H, MJPEG(sub stream) |
| Streaming Capability | 3 Streams |
| Resolution | 2688 × 1520/2560 × 1440/2304 × 1296/1080P (1920 × 1080)/1.3M (1280 × 960)/720P (1280 × 720)/D1 (704 × 576/704 × 480)/VGA (640 × 480)/CIF (352 × 288/352 × 240) |
| Frame Rate | Main Stream: 2688 × 1520 (1 fps–25/30 fps)<br>2560 × 1440 (1 fps–25/30 fps)<br>1920 × 1080 (1 fps–50/60 fps) |
| | Sub Stream: D1 (1 fps–25/30 fps)<br>D1 (1 fps–50/60 fps) |
| | Third Stream: 1080P (1 fps–16 fps) |
| Bit Rate Control | CBR/VBR |
| Bit Rate | H.264: 32 Kbps–8192 Kbps<br>H.265: 19 Kbps–8192 Kbps |
| Day/Night | Day/Night: Electronic<br>Color/B/W |
| BLC Mode | BLC/HLC/WDR (140 dB) |
| 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) |
| Electronic Image Stabilization (EIS) | N/A |
| Defog | Support |
| Digital Zoom | N/A |
| Flip | 0°/90°/180°/270° |
| Mirror | Off/On |
| Privacy Masking | Off/On (4 Area, Rectangle) |

### Audio

| | |
|---|---|
| Compression | G.711a, G.711Mu, G.726, AAC, G.723 |

### Network

| | |
|---|---|
| Ethernet | RJ-45 (10/100 Base-T) |
| Protocol | HTTP, TCP, ARP, RTSP, RTP, UDP, RTCP, SMTP, FTP, DHCP, DNS, DDNS, PPPoE, IPv4/v6, SNMP, QoS, UPnP, NTP, ICMP, HTTPS, IGMP, 802.1x |
| Interoperability | ONVIF (Profile S/Profile G), CGI, Milstone, Genetec, P2P |
| Streaming Method | Unicast/Multicast |
| Max. User Access | 20 Users |
| Edge Storage | NAS<br>FTP<br>Micro SD card 256 GB |
| Web Viewer | IE (versions newer than IE8), Chrome, Firefox, Safari (versions newer than Safari 12) |
| Management Software | Smart PSS, DSS, P2P |
| Smart Phone | iOS, Android |

### Certifications

| | |
|---|---|
| Certifications | CE-LVD: EN60950-1<br>CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU<br>FCC: 47 CFR FCC Part 15, Subpart B<br>UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07 |

### Interface

| | |
|---|---|
| Video Interface | N/A |
| Audio Interface | 1/1 channel In/Out |
| RS485 | N/A |

| | |
|---|---|
| Alarm | 1 channel In: 5mA 5V DC<br>1 channel Out: 300mA 12V DC |
| **Electrical** | |
| Power Supply | DC 12V (±30%), PoE (802.3af) (Class 0) |
| Power Consumption | <4.4W |
| **Environmental** | |
| Operating Conditions | -30° C to +60° C (-22° F to +140° F)/10%RH–95%RH |
| Strorage Conditions | -30° C to +60° C (-22° F to +140° F) |
| Ingress Protection | IP67 |
| Vandal Resistance | N/A |
| **Construction** | |
| Casing | Metal |
| Dimensions | 244.1 mm × 79.0 mm × 75.9 mm (9.61" × 3.11" × 2.99") |
| Net Weight | 0.805 Kg (1.77 lb) |
| Gross Weight | 1.16 Kg (2.56 lb) |

## Accessories

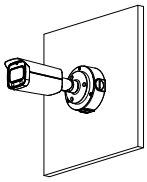
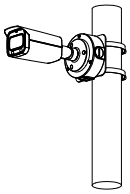
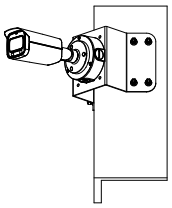
### Optional:

PFA130-E
Junction box

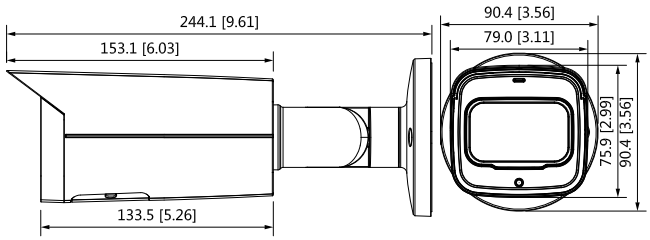
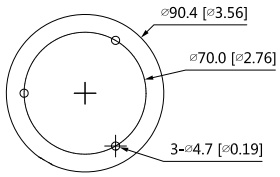
PFA152-E
Pole Mount

PFA151
Corner Mount

LR1002
ePoE Over Coax Converter

| Junction Mount | Pole Mount | Corner Mount |
|---|---|---|
| PFA130-E | PFA130-E+ PFA152-E | PFA130-E + PFA151 |
|  |  |  |

## Ordering Information

| Type | Part Number | Description |
|---|---|---|
| 4MP camera | DH-IPC-HFW5442TP-ASE-NI | 4MP WDR Bullet AI Network Camera, WDR, PAL |
| | DH-IPC-HFW5442TN-ASE-NI | 4MP WDR Bullet AI Network Camera, WDR, NTSC |
| | IPC-HFW5442TP-ASE-NI | 4MP WDR Bullet AI Network Camera, WDR, PAL |
| | IPC-HFW5442TN-ASE-NI | 4MP WDR Bullet AI Network Camera, WDR, NTSC |
| Accessories (optional) | PFA130-E | Junction box |
| | PFA152-E | Pole Mount |
| | PFA151 | Corner Mount |

## Dimensions (mm[inch])