# RPZ8A840WA-HNF

## 8MP 40x Starlight IR PTZ AI Network Camera

- 1/1.8" 8Megapixel STARVIS™ CMOS
- Powerful 40x optical zoom
- Starlight technology
- Perimeter Protection
- Metadata
- Face Recognition
- Auto-tracking
- Smart wiper
- IP67

AI 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, AI provides precise, reliable and comprehensive AI solutions for industry verticals.

### System Overview

PTZ AI network camera adopts advanced CNN deep learning algorithms to support face recognition with high accuracy. This camera possess wide monitor range, PFA algorithm that can always present a clear, focused image while zooming, and smart wiper technology that supported by RainSensor.

### Functions

**Starlight Technology**

For challenging low-light applications, Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.001lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

**Perimeter Protection**

Automatically filtering out false alarms caused by animals, resulting leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improving alarm accuracy.

**Video Metadata**

Metadata is information on the attributes of targets that is extracted during monitoring. It can be used for data retrieval. There are four kinds of metadata supported by PTZ AI cameras: Human face, human body, motor vehicle and non-motor vehicle. Face information includes gender, age, glasses, masks, beards, and more. Human body information includes hat, top, top color, bottom, bottom color, bag, and more. Motor vehicle information includes plate color, type, vehicle color, sun visor, ornament, calling, seatbelt, smoking, annual inspection sticker, and more. Non-motor vehicle information includes type, color, top type, top color, people number, and more.

**Auto-tracking**

This feature controls the pan, tilt and zoom actions of the camera to automatically track an object in motion, to keep it in view of the camera. Tracking can be triggered manually or automatically by defined rules. Once a rule is triggered, the camera can zoom in and track the defined target automatically.

**PFA Technology**

PFA technology has introduced new methods of judgment that ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms that ensure image clarity when zooming and that shorten focus time. This makes the camera highly advanced in its functions, substantially improving the quality of your experience.

**Smart H.265+**

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, a flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality videos without straining the network. Smart H.265+ technology outranks standard H.265 video compression, reducing bit rate and storage requirements by up to 70%.

# RPZ8A840WA-HNF

## 8MP 40x Starlight IR PTZ AI Network Camera

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 1/1.8" CMOS |
| Pixel | 8MP |
| Max. Resolution | 3840 (H) x 2160 (V) |
| ROM | 8GB |
| RAM | 2GB |
| Electronic Shutter Speed | 1/1s~1/30,000s |
| Scanning System | Progressive |
| Minimum Illumination | Color: 0.005 lux@F1.4<br>B/W: 0.0005 lux@F1.4<br>0 lux@F1.4 (illuminator on) |
| IR Distance | Distance up to 500m (1640ft) |
| IR On/Off Control | Auto / Manual |
| Illuminator Number | 10 IR Lights |
| Wiper | Smart Wiper |

### Lens

| | | | | |
|---|---|---|---|---|
| Focal Length | 5.6mm-223mm | | | |
| Aperture | F1.4-F4.5 | | | |
| Angle of View | H: 63.9° - 2.0°<br>V:37.2° - 1.2°<br>D: 71.2° - 2.4° | | | |
| Optical Zoom | 40x | | | |
| Focus Control | Auto; semi-auto; manual | | | |
| Close Focus Distance | 0.5m-2m (1.64ft-6.56ft) | | | |
| Iris Control | Auto / Manual | | | |
| DORI Distance | Detect | Observe | Recognize | Identify |
| | 4400m (14435ft) | 1740m (5708ft) | 880m (2887ft) | 440m (1443ft) |

### PTZ

| | |
|---|---|
| Pan/Tilt Range | Pan: 0° ~ 360° endless<br>Tilt: -30° ~ 90° auto flip 180° |
| Manual Control Speed | Pan: 0.1° ~ 240°/s<br>Tilt: 0.1° ~ 100°/s |
| Preset Speed | Pan: 240° /s<br>Tilt: 120°/s |
| Preset | 300 |
| Tour | 8 (up to 32 presets per tour) |
| Pattern | 5 |
| Scan | 5 |
| Speed Adjustment | Yes |
| Power-off Memory | Yes |
| Idle Motion | Preset / Tour / Pattern / Scanning |
| PTZ Protocol | Pelco-P/D (Auto recognition) |

### Smart Event

| | |
|---|---|
| Event trigger | Motion detection, video tampering, scene changing, Network disconnection, IP address conflict, illegal access, and storage anomaly. |
| General IVS | Object Abandoned/Missing |

### Intelligence

| | |
|---|---|
| Video Metadata | Support human body, human face, motor vehicle and non-motor vehicle image capture and attribute extraction. |
| IVS (Perimeter Protection) | Tripwire; intrusion; climbing fences; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; vehicle/human alarm classification |
| Face Recognition | Yes |
| Auto Tracking | Yes |

### Video

| | |
|---|---|
| Compression | Smart H.265+; H.265; Smart H.264+; H.264; MJPEG (Sub Stream 1) |
| Streaming Capability | 3 Streams |
| Resolution | 4K (3840 × 2160); 4M (2560 × 1440);<br>1080p (1920 × 1080); 1.3M (1280 × 960);<br>720p (1280 × 720); D1 (704 × 576); CIF (352 × 288) |
| Frame Rate | Main stream: 4K/4M/1080p/1.3M/720p (1–25/30 fps)<br>Sub stream 1: D1/CIF (1–25/30 fps)<br>Sub stream 2: 1080p/1.3M/720p (1–25/30 fps) |
| Bit Rate Control | CBR/VBR |
| Bit Rate | H.264: 512Kbps - 16384Kbps<br>H.265: 256Kbps - 10240Kbps |
| Day/Night | Auto(ICR) / Color / B/W |
| BLC | Yes |
| WDR | 120dB |
| HLC | Yes |
| White Balance | Auto; indoor; outdoor; tracking; manual; sodium lamp; natural light; street lamp |
| Gain Control | Auto; Manual |
| Noise Reduction | 2D NR; 3D NR |
| Motion Detection | Yes |
| Region of Interest (ROI) | Yes |
| Electronic Image Stabilization (EIS) | Yes |
| Defog | Optical |
| Digital Zoom | 16x |
| Flip | 0°; 180° |
| Privacy Masking | Up to 24 areas can be set, with up to 8 areas in the same view |
| S/N Ratio | ≥55dB |

### Audio

| | |
|---|---|
| Audio Compression | G.711a; G.711mu; G.726; AAC; G722.1; G.729; MPEG2-Layer2; G723 |

### Network

| | |
|---|---|
| Network Port | RJ-45 (10/100 Base-T) |
| Network Protocol | IPv4; IPv6; HTTP; HTTPS; 802.1x; QoS; FTP; SMTP; UPnP; SNMP v1/v2c/v3 (MIB-2); DNS; DDNS; NTP; RTSP; RTP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE; ARP; RTCP; RTMP |
| Interoperability | ONVIF Profile S&G&T, CGI |
| Streaming Method | Unicast; Multicast |
| Max. User Access | 20 users |
| Storage | FTP; Micro SD card (512GB) |
| Browser | IE 7 and later versions<br>Chrome 42 and earlier versions<br>Firefox 52 and earlier versions<br>Safari |
| Mobile Client | IOS; Android |

# RPZ8A840WA-HNF

## 8MP 40x Starlight IR PTZ AI Network Camera

| | |
|---|---|
| **Certifications** | |
| Certifications | CE: EN55032 / EN55024 / EN50130-4<br>FCC: Part15 SubpartB, ANSI C63.4-2014 |
| **Port** | |
| Analog Output | 1 BNC |
| RS485 | 1 (baud rate range: 1200 bps–9600 bps) |
| Alarm I/O | 7/2 |
| Audio I/O | 1/1 |
| **Electrical** | |
| Power Supply | 36 VDC, 2.23 A (±25%)<br>Hi-PoE |
| Power Consumption | Basic: 30 W<br>Max: 48 W (illuminator + PTZ working) |
| **Environment** | |
| Operating Temperature | -40°C to 70°C (-40°F to +158°F) |
| Operating Humidity | ≤95% (RH) |
| Protection | IP67; TVS 6000 V lightning protection;<br>surge protection; voltage transient protection |
| **Structure** | |
| Casing | Metal |
| Product Dimensions | 415.6mm × Φ26.2 mm (16.36" × Φ10.31") |
| Net Weight | 10kg (22.05lb) |
| Gross Weight | 12kg (26.46lb) |

## Accessories

**Included**

DC36V/2.23A
Power Adapter

RPFB306W
Wall Mount Bracket

**Optional**

RPFA118
Mount Adapter

RPFB710C
Ceiling Mount

RPFA150
Pole Mount

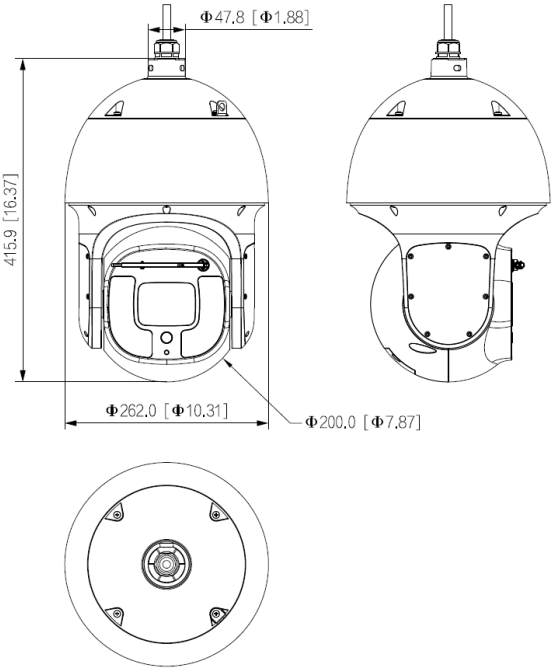
RPFB301S-E
Plane Mount

RPFA120
Junction Box

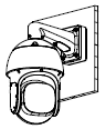
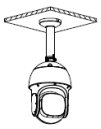
RPFB301C
Ceiling Mount

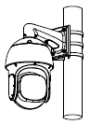
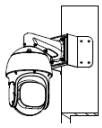
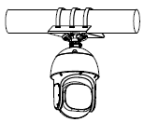
RPFA151
Corner Mount

## Dimensions (mm[inch])






| Wall Mount | Ceiling Mount | Ceiling Mount |
|---|---|---|
| RPFB306W + RPFA120 | RPFA118 + RPFB710C | RPFA118 + RPF301C |
|  |  | |

| Pole Mount (Vertical) | Corner Mount | Pole Mount (Horizontal) |
|---|---|---|
| RPFB306W + RPFA150 | RPFB306W + RPFA151 | RPFA118 + RPFB301C + RPFA150 |
|  |  |  |

| Plane Mount |
|---|
| RPFA118 + RPFB301S-E |
| |