

# AXIS P4707-PLVE Panoramic Camera

## Dual-sensor with 360° IR and deep learning

This dual-sensor, multidirectional camera offers 2\*5 MP at 30 fps. It features Lightfinder and Forensic WDR for sharp, clear images in challenging or poor light conditions. Built on ARTPEC-8, this high-performance camera includes a deep learning processing unit enabling improved processing and storage capabilities. It also allows you to collect and analyze even more data than before – on the edge. Plus, it delivers valuable metadata facilitating fast, easy, and efficient forensic search capabilities in live or recorded video. And, with flexible positioning of both varifocal camera heads plus, remote zoom and focus capabilities, it ensures fast and cost-effective installation.

- > **2\*5 MP, multidirectional camera, with one IP address**
- > **Support for analytics with deep learning on both sensors**
- > **360° IR illumination**
- > **2.5x zoom**
- > **Axis Lightfinder and Forensic WDR**



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## Camera

### Image sensor

2 x 1/2.7" progressive scan RGB CMOS

### Lens

Varifocal, 3.3–8.1 mm, F1.9–3.2  
Horizontal field of view: 98°–36°  
Vertical field of view: 69°–27°  
Diagonal field of view: 133°–46°  
Minimum focus distance: 0.5 m (1.6 ft)  
Fixed iris, IR corrected, remote zoom and focus

### Day and night

Automatically removable infrared-cut filter

### Minimum illumination

Color: 0.19 lux at 50 IRE, F1.9  
B/W: 0 lux at 50 IRE, F1.9  
0 lux with IR illumination on

### Shutter speed

1/33500 s to 1/5 s with 60/50 Hz

### Camera adjustment

Pan  $\pm 110^\circ$ , tilt  $\pm 75^\circ$ , rotation  $\pm 170^\circ$

## System on chip (SoC)

### Model

ARTPEC-8

### Memory

2048 MB RAM, 8192 MB Flash

### Compute capabilities

Deep learning processing unit (DLPU)

## Video

### Video compression

H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles  
H.265 (MPEG-H Part 2/HEVC) Main Profile  
Motion JPEG

### Resolution

4:3: 2x 2592x1944 (2x 5MP) to 2x 640x480  
16:9: 2x 2560x1440 (2x Quad HD) to 2x 640x360

### Frame rate

Up to 30/25 fps (60/50 Hz) in all resolutions

### Video streaming

Multiple, individually configurable streams in H.264, H.265, and Motion JPEG  
Axis Zipstream technology in H.264 and H.265  
Controllable frame rate and bandwidth  
VBR/ABR/MBR H.264/H.265  
Low latency mode

### Image settings

Saturation, contrast, brightness, sharpness, Forensic WDR, white balance, day/night threshold, tone mapping, exposure mode, exposure zones, barrel distortion correction, compression, rotation: 0°, 90°, 180°, 270° including corridor format, mirroring, dynamic text and image overlay, 8 polygon privacy masks per channel

## Audio

### Streaming

Audio in, simplex  
Two-way audio via edge-to-edge technology

External microphone input or line input, ring power, digital audio input, automatic gain control  
Network speaker pairing  
Audio features through portcast technology: two-way audio connectivity, voice enhancer

### Encoding

24bit LPCM, AAC-LC 8/16/32/44.1/48 kHz, G.711 PCM 8 kHz, G.726 ADPCM 8 kHz, Opus 8/16/48 kHz  
Configurable bit rate

## Network

### Network protocols

IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS<sup>1</sup>, HTTP/2, TLS<sup>1</sup>, QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, PTP, NTS, RTSP, RTCP, RTP, SRTP/RTSPS, TCP, UDP, IGMPv1/v2/v3, DHCPv4/v6, ARP, SSH, LLDP, CDP, MQTT v3.1.1, Secure syslog (RFC 3164/5424, UDP/TCP/TLS), Link-Local address (ZeroConf)

1. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (openssl.org), and cryptographic software written by Eric Young (eay@cryptsoft.com).

## System integration

### Application Programming Interface

Open API for software integration, including VAPIX® and AXIS Camera Application Platform; specifications at [axis.com/developer-community](https://axis.com/developer-community)

One-click cloud connection

ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specification at [onvif.org](https://onvif.org)

### Video management systems

Compatible with AXIS Camera Station Edge, AXIS Camera Station Pro, AXIS Camera Station 5, and video management software from Axis' partners available at [axis.com/vms](https://axis.com/vms).

### Onscreen controls

IR illumination

Autofocus

Privacy mask

Play media clip

### Edge-to-edge

Siren and light pairing

### Event conditions

Analytics, virtual inputs through API

Audio: audio detection

Device status: above operating temperature, above or below operating temperature, within operating temperature, IP address removed, new IP address, network lost, system ready, ring power overcurrent protection, live stream active, casing open

Digital audio: digital signal contains Axis metadata, digital signal has invalid sample rate, digital signal missing, digital signal okay

Edge storage: recording ongoing, storage disruption, storage health issues detected

I/O: manual trigger, virtual input

MQTT: subscribe

Scheduled and recurring: schedule

Video: average bitrate degradation, day-night mode, live stream open, tampering

### Event actions

Overlay text, day/night mode, flash status LED

Audio clips: play, stop

Illumination: use lights, use lights while the rule is active

MQTT: publish

Notification: HTTP, HTTPS, TCP and email

Pre- and post-alarm video or image buffering for recording or upload

Record video: SD card and network share

SNMP traps: send, send while the rule is active

Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email

### Built-in installation aids

Pixel counter, remote zoom and focus, level grid

## Analytics

### Applications

#### Included

AXIS Object Analytics, AXIS Scene Metadata, AXIS Video Motion Detection, active tampering alarm, audio detection

Support for AXIS Camera Application Platform enabling installation of third-party applications, see [axis.com/acap](https://axis.com/acap)

### AXIS Object Analytics

**Object classes:** humans, vehicles (types: cars, buses, trucks, bikes, other)

**Scenarios:** line crossing, object in area, crossline counting, occupancy in area, time in area

Up to 10 scenarios, with up to 5 scenarios per channel

**Other features:** triggered objects visualized with trajectories, color-coded bounding boxes and tables  
Polygon include/exclude areas

Perspective configuration

ONVIF Motion Alarm event

### AXIS Scene Metadata

**Object classes:** humans, faces, vehicles (types: cars, buses, trucks, bikes), license plates

**Object attributes:** Vehicle color, upper/lower clothing color, confidence, position

## Approvals

### EMC

CISPR 35, CISPR 32 Class A, EN 55035,  
EN 55032 Class A, EN 50121-4, EN 61000-6-1,  
EN 61000-6-2

**Australia/New Zealand:** RCM AS/NZS CISPR 32 Class A

**Canada:** ICES-3(A)/NMB-3(A)

**Japan:** VCCI Class A

**Korea:** KS C 9835, KS C 9832 Class A

**USA:** FCC Part 15 Subpart B Class A

**Railway:** IEC 62236-4

### Safety

CAN/CSA C22.2 No. 60950-22,  
CAN/CSA C22.2 No. 62368-1 ed. 3, IEC/EN/UL 62368-1,  
IEC/EN 62471, IEC/EN/UL 60950-22, IS 13252

### Environment

IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6,  
IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78,  
IEC/EN 60529 IP66/IP67, IEC/EN 62262:2002 IK10,  
MIL-STD-810H (Method 501.7, 502.7, 505.7, 506.6,  
507.6, 509.7, 512.6)<sup>2</sup>, NEMA 250 Type 4X,  
NEMA TS 2 (2.2.7-2.2.9)

### Network

NIST SP500-267

### Cybersecurity

ETSI EN 303 645, BSI IT Security Label, FIPS 140

## Cybersecurity

### Edge security

**Software:** Signed OS, brute force delay protection,  
digest authentication and OAuth 2.0 RFC6749 Client  
Credential Flow/OpenID Authorization Code Flow for  
centralized ADFS account management, password  
protection, Axis Cryptographic Module (FIPS 140-2 level  
1), AES-XTS-Plain64 256bit SD card encryption

**Hardware:** Axis Edge Vault cybersecurity platform  
TPM 2.0 (CC EAL4+, FIPS 140-2 Level 2), secure element  
(CC EAL 6+), system-on-chip security (TEE), Axis device  
ID, secure keystore, signed video, secure boot, encrypted  
filesystem (AES-XTS-Plain64 256bit)

### Network security

IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)<sup>3</sup>,  
IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR,  
HTTPS/HSTS<sup>3</sup>, TLS v1.2/v1.3<sup>3</sup>, Network Time Security  
(NTS), X.509 Certificate PKI, host-based firewall

## Documentation

*AXIS OS Hardening Guide*

*Axis Vulnerability Management Policy*

*Axis Security Development Model*

AXIS OS Software Bill of Material (SBOM)

To download documents, go to [axis.com/support/cybersecurity/resources](https://axis.com/support/cybersecurity/resources)

To read more about Axis cybersecurity support, go to  
[axis.com/cybersecurity](https://axis.com/cybersecurity)

## General

### Casing

IP66-, IP67-, NEMA 4X- and IK10-rated  
Polycarbonate hard-coated dome  
Aluminum and plastic casing, weathershield  
Color: white NCS S 1002-B or black NCS S 9000-N

### Mounting

Mounting bracket with junction box holes (double-  
gang, single-gang, 4" square, and 4" octagon)  
1/4"-20 UNC tripod screw thread  
1/2" (M20) conduit side entry

### Sustainability

PVC and BFR/CFR free, 70% recycled plastics, 2%  
bioplastics

### Power

Power over Ethernet (PoE) IEEE 802.3af/se802.3at  
Type 2 Class 4  
IR illumination on: typical 10.7 W, max 17.5 W  
IR illumination off: typical 5.2 W, max 10.6 W

### Connectors

Shielded RJ45 10BASE-T/100BASE-TX/1000BASE-T PoE  
3.5 mm mic/line in

### IR illumination

Optimized IR with power-efficient, long-life 850 nm IR  
LEDs  
Range of reach 15 m (50 ft) or more depending on the  
scene

### Storage

Support for microSD/microSDHC/microSDXC card  
Support for SD card encryption (AES-XTS-Plain64  
256bit)  
Recording to network-attached storage (NAS)  
For SD card and NAS recommendations see [axis.com](https://axis.com)

2. Method 505.7 with weathershield

3. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. ([openssl.org](https://openssl.org)), and cryptographic software written by Eric Young ([ey@cryptsoft.com](mailto:ey@cryptsoft.com)).

**Operating conditions**

-30 °C to 50 °C (-22 °F to 122 °F)

Maximum temperature according to NEMA TS 2 (2.2.7):

74 °C (165 °F)

Start-up temperature: -30 °C

Humidity 10–100% RH (non-condensing)

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**Storage conditions**

-40 °C to 65 °C (-40 °F to 149 °F)

Humidity 5–95% RH (non-condensing)

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**Dimensions**

Height: 88 mm (3.5 in)

Width: 133 mm (5.2 in)

Length: 208 mm (8.2 in)

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**Weight**

975 g (2.1 lb)

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**Included accessories**

Installation guide, Windows® decoder 1-user license,  
connector kit, weathershield, connector guard

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**Optional accessories**

Black casing, smoked dome, conduit adapters,

AXIS T94N02 Pendant Kit

AXIS T8415 Wireless Installation Tool

AXIS Surveillance Cards

For more accessories, see [axis.com](http://axis.com)

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**Languages**

English, German, French, Spanish, Italian, Russian,  
Simplified Chinese, Japanese, Korean, Portuguese,  
Polish, Traditional Chinese, Dutch, Czech, Swedish,  
Finnish, Turkish, Thai, Vietnamese

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**Warranty**

5-year warranty, see [axis.com/warranty](http://axis.com/warranty)

**Detect, Observe, Recognize, Identify (DORI)**

|           | DORI definition     | Distance (wide)  | Distance (tele)    |
|-----------|---------------------|------------------|--------------------|
| Detect    | 25 px/m (8 px/ft)   | 63.7 m (209 ft)  | 159.6 m (523.5 ft) |
| Observe   | 63 px/m (19 px/ft)  | 25.3 m (83 ft)   | 63.3 m (208 ft)    |
| Recognize | 125 px/m (38 px/ft) | 12.7 m (41.7 ft) | 31.9 m (105 ft)    |
| Identify  | 250 px/m (76 px/ft) | 6.4 m (21 ft)    | 16.0 m (52.5 ft)   |

The DORI values are calculated using pixel densities for different use cases as recommended by the EN-62676-4 standard. The calculations use the center of the image as the reference point and consider lens distortion. The possibility to recognize or identify a person or object depends on factors such as object motion, video compression, lighting conditions, and camera focus. Use margins when planning. The pixel density varies across the image, and the calculated values can differ from the distances in the real world.