

## AXIS P3827-PVE Panoramic Camera

True to life, 180° coverage, no blind spots

With 7 MP resolution and seamless stitching of all four images, this multisensor camera offers complete coverage and excellent image quality with incredible details up to 30 fps. It delivers 180° horizontal and 90° vertical coverage with no blind spots. Plus, it's possible to mount two cameras back-to-back for a complete 360° overview. Including horizon straightening, this product will give an excellent viewing experience, enabling to set the horizon in the image. Built on ARTPEC-8, this cost-effective camera supports advanced analytics based on deep learning on the edge. Additionally, built-in cybersecurity features prevent unauthorized access and safeguard your system.

- > 7 MP multisensor camera with one IP address
- > 180° horizontal, 90° vertical coverage
- > Seamlessly stitched realistic images
- > Support for advanced analytics
- > Horizon straightening



# AXIS P3827-PVE Panoramic Camera

## Camera

### Image sensor

4 x 1/2.8" progressive scan RGB CMOS  
Pixel size 2.9 µm

### Lens

Fixed 3.3 mm, F2.0  
Horizontal field of view: 180°  
Vertical field of view: 90°

### Day and night

Automatic IR-cut filter  
Hybrid IR filter

### Minimum illumination

Color: 0.15 lux at 50 IRE, F2.0  
B/W: 0.05 lux at 50 IRE, F2.0

### Shutter speed

1/31500 s to 1.5 s

### Camera adjustment

Pan ±180°  
Tilt 0° to 50°  
Roll ±5°

## 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

3712x1856 to 640x320

### Frame rate

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

### Video streaming

Up to 20 unique and configurable video streams<sup>1</sup>  
Axis Zipstream technology in H.264 and H.265  
Controllable frame rate and bandwidth  
VBR/ABR/MBR H.264/H.265  
Low latency mode  
Video streaming indicator

### Signal-to-noise ratio

>55 dB

### WDR

Forensic WDR: Up to 120 dB depending on scene

### Multi-view streaming

Up to 8 individually cropped out view areas

### Noise reduction

Spatial filter (2D noise reduction)  
Temporal filter (3D noise reduction)

### Image settings

Horizon straightening, saturation, contrast, brightness, sharpness, white balance, day/night threshold, local contrast, tone mapping, exposure mode, compression, dynamic text and image overlay, polygon privacy masks

### Image processing

Axis Zipstream, Forensic WDR, Lightfinder

### Pan/Tilt/Zoom

Digital PTZ

## Audio

### Audio features

AGC automatic gain control  
Network speaker pairing

1. We recommend a maximum of 3 unique video streams for optimized user experience, network bandwidth, and storage utilization. A unique video stream can be served to many video clients in the network using multicast or unicast transport method via built-in stream reuse functionality.

## Audio streaming

Configurable duplex:

One-way (simplex, half duplex)

Two-way (half duplex, full duplex)

## Audio input

Input for external unbalanced microphone, optional 5 V microphone power

Digital input, optional 12 V ring power

Unbalanced line input

## Audio output

Output via network speaker pairing

## Audio encoding

24bit LPCM, AAC-LC 8/16/32/48 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>2</sup>, HTTP/2, TLS<sup>2</sup>, QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, NTS, RTSP, RTP, SRTP/RTSPS, TCP, UDP, IGMPv1/v2/v3, RTCP, ICMP, DHCPv4/v6, ARP, SSH, LLDP, CDP, MQTT v3.1.1, Secure syslog (RFC 3164/5424, UDP/TCP/TLS), Link-Local address (ZeroConf), IEEE 802.1X (EAP-TLS), IEEE 802.1AR

## System integration

### Application Programming Interface

Open API for software integration, including VAPIX®, metadata and AXIS Camera Application Platform (ACAP); 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, specifications 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

Privacy masks

Media clip

## Event conditions

Device status: above operating temperature, above or below operating temperature, 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 input status

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

I/O: digital input, manual trigger, virtual input

MQTT: subscribe

Scheduled and recurring: schedule

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

## Event actions

Audio clips: play, stop

Day-night mode

I/O: toggle I/O once, toggle I/O while the rule is active

MQTT: publish

Notification: HTTP, HTTPS, TCP and email

Overlay text

Recordings: 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, 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, time in area, crossline counting, occupancy in area

Up to 10 scenarios

Other features: triggered objects visualized with trajectories, color-coded bounding boxes and tables

Polygon include/exclude areas

Perspective configuration

ONVIF Motion Alarm event

2. 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)).

## **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**

### **Product markings**

CSA, UL/cUL, BIS, UKCA, CE, KC, EAC, VCCI, RCM

### **Supply chain**

TAA compliant

### **EMC**

CISPR 35, CISPR 32 Class A, EN 55035, EN 55032 Class A, EN 50121-4, EN 61000-6-1, EN 61000-6-2, IEC 62236-4

**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

### **Safety**

CAN/CSA C22.2 No. 62368-1 ed. 3, IEC/EN/UL 62368-1 ed. 3, 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 IK10, NEMA 250 Type 4X, NEMA TS 2 (2.2.7-2.2.9), MIL-STD-810H (Method 501.7, 502.7, 505.7, 506.6, 507.6, 509.7, 512.6)

### **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:** Secure boot, Axis Edge Vault with Axis device ID, signed video, secure keystore (CC EAL4+, FIPS 140-2 level 2 certified hardware protection of cryptographic operations and keys)

### **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 aluminum casing  
Polycarbonate hard-coated dome  
Color: white NCS S 1002-B

For repainting instructions, go to the product's support page. For information about the impact on warranty, go to [axis.com/warranty-implication-when-repainting](https://axis.com/warranty-implication-when-repainting).

### **Mounting**

Mounting bracket with junction box holes (double-gang, single-gang, 4" square, and 4" octagon) and for wall or ceiling mount  
3/4" (M25) conduit side entries

### **Power**

Power over Ethernet (PoE) IEEE 802.3at Type 2 Class 4  
Typical 12 W, max 18 W

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@cryptosoft.com](mailto:ey@cryptosoft.com)).

## Connectors

Network: Shielded RJ45 10BASE-T/100BASE-TX/1000BASE-T PoE  
I/O: Terminal block for two configurable supervised inputs / digital outputs (12 V DC output, max load 50 mA)  
Audio: 3.5 mm analog/digital mic/line in

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## Storage

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

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## Operating conditions

-40 °C to 55 °C (-40 °F to 131 °F)  
Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F)  
Start-up temperature: -40 °C  
Humidity 10–100% RH (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: 169 mm (6.7 in)  
ø 195 mm (7.7 in)  
Effective Projected Area (EPA): 0.025 m<sup>2</sup> (0.27 ft<sup>2</sup>)

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## Weight

2300 g (5.1 lb)

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## Box content

Camera, installation guide, terminal block connector, connector guard, cable gaskets, owner authentication key

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## Optional accessories

AXIS T8415 Wireless Installation Tool  
AXIS Surveillance Cards  
AXIS TQ3102 Pendant Kit  
AXIS TQ3101-E Pendant Kit  
AXIS TQ3201-E Recessed Mount  
AXIS T94V01C Dual Camera Mount  
For more accessories, go to [axis.com/products/axis-p3827-pve#accessories](https://axis.com/products/axis-p3827-pve#accessories)

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## System tools

AXIS Site Designer, AXIS Device Manager, product selector, accessory selector, lens calculator  
Available at [axis.com](https://axis.com)

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## Languages

English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Polish, Traditional Chinese

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## Warranty

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

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## Part numbers

Available at [axis.com/products/axis-p3827-pve#part-numbers](https://axis.com/products/axis-p3827-pve#part-numbers)

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## Sustainability

### Substance control

PVC free, BFR/CFR free in accordance with JEDEC/ECA Standard JS709  
RoHS in accordance with EU RoHS Directive 2011/65/EU/ and EN 63000:2018  
REACH in accordance with (EC) No 1907/2006. For SCIP UUID, see [axis.com/partner](https://axis.com/partner).

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### Materials

Renewable carbon-based plastic content: 19% (biobased)  
Screened for conflict minerals in accordance with OECD guidelines  
To read more about sustainability at Axis, go to [axis.com/about-axis/sustainability](https://axis.com/about-axis/sustainability)

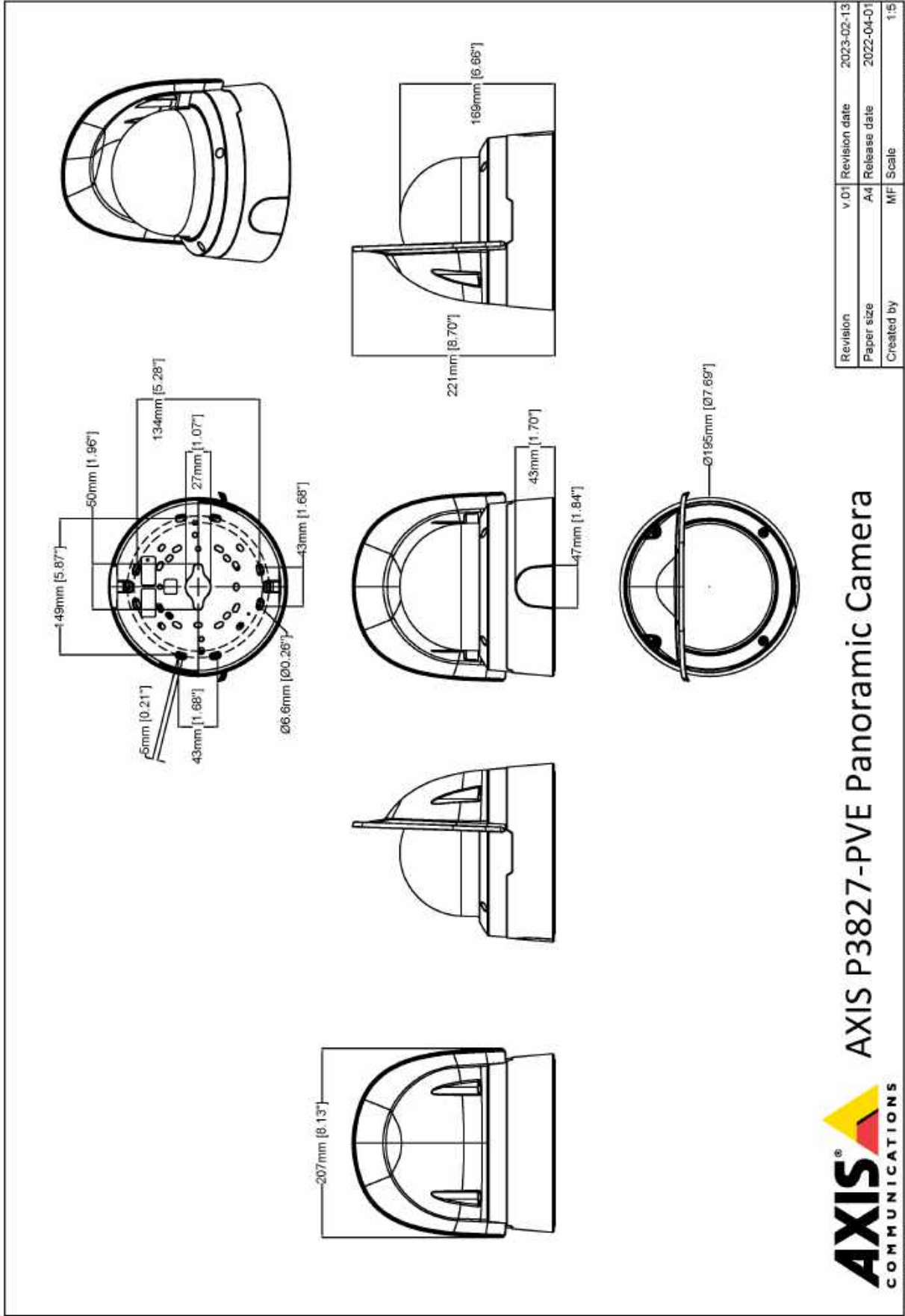
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### Environmental responsibility

[axis.com/environmental-responsibility](https://axis.com/environmental-responsibility)  
Axis Communications is a signatory of the UN Global Compact, read more at [unglobalcompact.org](https://unglobalcompact.org)

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Dimension drawing



## Highlighted capabilities

### AXIS Object Analytics

AXIS Object Analytics is a preinstalled, multifeatured video analytics that detects and classifies humans, vehicles, and types of vehicles. Thanks to AI-based algorithms and behavioral conditions, it analyzes the scene and their spatial behavior within – all tailored to your specific needs. Scalable and edge-based, it requires minimum effort to set up and supports various scenarios running simultaneously.

### Zipstream

The Axis Zipstream technology preserves all the important forensic in the video stream while lowering bandwidth and storage requirements by an average of 50%. Zipstream also includes three intelligent algorithms, which ensure that relevant forensic information is identified, recorded, and sent in full resolution and frame rate.

### Forensic WDR

Axis cameras with wide dynamic range (WDR) technology make the difference between seeing important forensic details clearly and seeing nothing but a blur in challenging light conditions. The difference between the darkest and the brightest spots can spell trouble for image usability and clarity. Forensic WDR effectively reduces visible noise and artifacts to deliver video tuned for maximal forensic usability.

### Horizon straightening

Horizon straightening is a feature in panoramic multisensor cameras that compensates for any physical tilt of the camera, thereby removing distortion and enabling the horizon to be straight even though it is not in the middle of the image. All objects and lines that are vertical in real life stay vertical also in the image.

### Axis Edge Vault

Axis Edge Vault is the hardware-based cybersecurity platform that safeguards the Axis device. It forms the foundation that all secure operations depend on and offer features to protect the device's identity, safeguard its integrity and protect sensitive information from unauthorized access. For instance, **secure boot** ensures that a device can boot only with **signed OS**, which prevents physical supply chain tampering. With signed OS, the device is also able to validate new device software before accepting to install it. And the **secure keystore** is the critical building-block for protecting cryptographic information used for secure communication (IEEE 802.1X, HTTPS, Axis device ID, access control keys etc.) against malicious extraction in the event of a security breach. The secure keystore and secure connections are provided through a Common

Criteria or FIPS 140 certified hardware-based cryptographic computing module.

Furthermore, signed video ensures that video evidence can be verified as untampered. Each camera uses its unique video signing key, which is securely stored in the secure keystore, to add a signature into the video stream allowing video to be traced back to the Axis camera from where it originated.

To read more about Axis Edge Vault, go to [axis.com/solutions/edge-vault](https://axis.com/solutions/edge-vault).

For more information, see [axis.com/glossary](https://axis.com/glossary)

