

# AXIS Q9227-SLV Corner Camera

## 5 MP, impact-resistant anti-ligature camera

This compact and robust ligature-resistant (anti-ligature) camera delivers outstanding 5 MP image quality. It's preinstalled with AI-powered video and audio analytics, and a hidden speaker and microphone for two-way communication. Ideal in high-security installations, it includes 940nm invisible IR illumination for unobtrusive surveillance in total darkness, and a white LED for details in color. AXIS Live Privacy Shield ensure privacy is always safeguarded. This robust IP66-, IP6K9K-, and IP69-rated camera is easy to clean and can withstand tough conditions. Furthermore, Axis Edge Vault, a hardware-based cybersecurity platform, safeguards the device and offers FIPS 140-3 Level 3 certified secure key storage and operations.

- > **Compact, IK11-rated, anti-ligature design**
- > **Built-in speaker and microphone**
- > **AI-powered audio and video analytics**
- > **Easy to install and clean**
- > **Built-in cybersecurity with Axis Edge Vault**



# AXIS Q9227-SLV Corner Camera

## Camera

### Variants

AXIS Q9227-SLV Steel  
AXIS Q9227-SLV White

### Image sensor

1/1.7" progressive scan RGB CMOS  
Pixel size 2.9  $\mu$ m

### Lens

3.7 mm, F2.0  
Horizontal field of view: 115°  
Vertical field of view: 89.2°  
Minimum focus distance: 1 m (3.3 ft)  
Autofocus, fixed iris, IR corrected, M14 mount

### Day and night

Automatic IR-cut filter

### Minimum illumination

Color: 0.06 lux at 50 IRE, F2.0  
B/W: 0 lux at 50 IRE, F2.0  
0 lux with IR illumination on

### Shutter speed

1/66500 s to 2 s with 50 Hz

### Camera adjustment

Tilt  $\pm 10^\circ$

## System on chip (SoC)

### Model

ARTPEC-8

### Memory

2 GB RAM, 8 GB Flash

### Compute capabilities

Deep learning processing unit (DLPUs)

## 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: 2880x2160 to 160x120

### 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

Saturation, contrast, brightness, sharpness, WDR, white balance, day/night threshold, local contrast, tone mapping, exposure mode, exposure zones, defog, compression, rotation: 0°, 90°, 180°, 270° including corridor format, mirroring, text and image overlay, dynamic text and image overlay, overlay widget, privacy masks, lock aperture, target aperture  
Scene profiles: forensic, indoor

### Image processing

Axis Zipstream, Forensic WDR, Lightfinder 2.0

1. We recommend a maximum of 3 unique video streams per camera or channel, 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

### Features

10-band graphic equalizer for audio input  
Echo cancellation (half duplex)  
Speaker pairing  
Spectrum visualizer<sup>2</sup>

### Streaming

Configurable duplex:  
One-way (simplex, half duplex)  
Two-way (half duplex, full duplex)

### Input

Built-in microphone (can be disabled)  
Physical microphone switch

### Built-in microphone specification

Signal-to-noise ratio: 69 dB(A) (94 dB SPL @ 1 m)  
Max sound pressure level: 128 dB (10% THD)  
Frequency range: 20 Hz – 20 kHz

### Output

Built-in 25x14mm dynamic microspeaker  
70 dB SPL (at 1 m/40 in)  
Frequency response 820 Hz – 5.075 kHz

### Encoding

LPCM 48 kHz, AAC-LC 8/16/32/48 kHz, G.711 PCM  
8 kHz, G.726 ADPCM 8 kHz, Opus 8/16/48 kHz  
Configurable bitrate

## Audio management

### AXIS Audio Manager Pro

Compatible with AXIS Audio Manager Pro 5.0 or later  
For larger and more advanced systems. Sold separately.  
See separate datasheet for specifications.  
For specifications, see the datasheet on [axis.com/products/axis-audio-manager-pro/support](http://axis.com/products/axis-audio-manager-pro/support)

## Network

### Network protocols

IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS<sup>3</sup>, HTTP/2, TLS<sup>3</sup>, QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP<sup>®</sup>, 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)

2. Feature available with ACAP

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

## System integration

### Application Programming Interface

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

Support for Voice over IP (VoIP) through the Session Initiation Protocol (SIP), using peer-to-peer (P2P) or Private Branch Exchange (PBX).

### 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](http://axis.com/vms).

### Onscreen controls

Autofocus  
Day/night shift  
Defog  
Wide dynamic range  
Video streaming indicator  
IR illumination  
White LED  
Privacy masks  
Media clip

### Edge-to-edge

Microphone pairing  
Network speaker pairing

### Event conditions

Application  
Audio: audio clip playing, physical microphone switch  
Call: state, state change  
Device status: above/below/within operating temperature, casing open, IP address blocked/removed, live stream active, network lost, new IP address, system ready  
Edge storage: recording ongoing, storage disruption, storage health issues detected  
I/O: digital input is active, digital output is active, manual trigger, virtual input is active  
Light and siren: health status  
MQTT: MQTT client connected  
Scheduled and recurring: schedule  
Video: average bitrate degradation, day-night mode, tampering

## Event actions

Audio clips: play, stop  
Calls: answer call, end SIP call, make SIP call  
Day-night mode  
I/O: toggle I/O once, toggle I/O while the rule is active  
Illumination: use lights, use lights while the rule is active  
LEDs: flash status LED, flash status LED while the rule is active  
MQTT: send MQTT publish message  
Light and siren: run, stop  
Notification: HTTP, HTTPS, TCP and email  
Overlay text  
Recordings: record video, record video while the rule is active  
Security: erase configuration  
SNMP trap messages: send, send while the rule is active  
Images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email  
WDR mode

## Built-in installation aids

Focus assistant, pixel counter, remote focus, straighten image, level grid

## Analytics

### Applications

#### Included

AXIS Object Analytics, AXIS Image Health Analytics, AXIS Audio Analytics, AXIS Scene Metadata, AXIS Live Privacy Shield<sup>4</sup>, AXIS Video Motion Detection, active tampering alarm

#### Supported

Support for AXIS Camera Application Platform enabling installation of third-party applications, see [axis.com/acap](http://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, tailgating detection, PPE monitoring<sup>BETA</sup>, motion in area, motion line crossing

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

## AXIS Image Health Analytics

### Detection settings:

Tampering: blocked image, redirected image

Image degradation: blurred image, underexposed image

Other features: sensitivity, validation period

## AXIS Audio Analytics

Features: Sound pressure level, adaptive audio detection, audio classification

Audio classes: scream, shout, glass break, speech, coughing fit

Event metadata: audio detections, classifications

## AXIS Scene Metadata

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

Object attributes: vehicle color, upper/lower clothing color, bag, confidence, position

Audio data: audio level

## Approvals

### Product markings

UL, CE, KC, VCCI, RCM, FCC, ICES, WEEE

### Supply chain

TAA compliant

### EMC

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

Canada: ICES(A)/NMB(A), 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, IEC/EN 62471 risk group exempt

### 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/IP69, IEC/EN 62262 IK11, NEMA 250 Type 4X, ISO 20653 IP6K9K

### Network

IPv6 USGv6, NIST SP500-267

### Cybersecurity

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)

**Hardware:** Axis Edge Vault cybersecurity platform  
Secure keystore: Secure element (CC EAL 6+, FIPS 140-3 Level 3), system-on-chip security (TEE)  
Axis device ID, signed video, secure boot, encrypted filesystem (AES-XTS-Plain64 256bit)

### Network security

IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)<sup>5</sup>,  
IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR,  
HTTPS/HSTS<sup>5</sup>, TLS v1.2/v1.3<sup>5</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](http://axis.com/support/cybersecurity/resources)

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

## General

### Casing

Anti-ligature and anti-grip stainless steel casing and polycarbonate hard-coated smoked dome.

IP66-, IP69-, IP6K9K-, NEMA 4X- and IK11-rated

**Steel:** Color: Stainless steel

**White:** 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](http://axis.com/warranty-implication-when-repainting).

### LED indicators

LED indicator (RGB)

### Power

Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3, max 12.95 W, typical (heater off, IR off) 3.98 W

### Environmental sensors

Environmental sensors through portcast technology accessories. For more information, see *Optional accessories*.

### I/O functionality

1 digital input and 1 output 12 VDC output, max load 25 mA

### Connectors

I/O: 4-pin 2.5 mm terminal block

Network: RJ45 10BASE-T/100BASE-TX PoE

### IR illumination

OptimizedIR with power-efficient, long-life 940 nm IR LEDs

Range of reach 10 m (33 ft) or more depending on the scene

### Illumination LED

Power-efficient, long-life white LED

Range of reach 10 m (33 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](http://axis.com)

### Operating conditions

Temperature: -20 °C to 50 °C (-4 °F to 122 °F)

Maximum temperature (intermittent): 55 °C (131 °F)

Humidity: 10–85% RH (non-condensing)

### Storage conditions

Temperature: -40 °C to 65 °C (-40 °F to 149 °F)

Humidity: 5–95% RH (non-condensing)

### Dimensions

For the overall product dimensions, see the dimension drawing in this datasheet.

### Weight

1740 g (3.8 lb)

### Box content

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

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

## System tools

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

## Languages

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

## Warranty

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

## Software support

New feature development until 2030 (AXIS OS 12, 13 and 14)  
Support until 2035-12-31 (AXIS OS LTS 2030–2035)  
Read more about the AXIS OS lifecycle at [help.axis.com/axis-os](http://help.axis.com/axis-os)

## Part numbers

Available at [axis.com/products/axis-q9227-slv#part-numbers](http://axis.com/products/axis-q9227-slv#part-numbers)

## Optional accessories

### Portcast

AXIS D6210 Air Quality Sensor

### Installation

AXIS T8415 Wireless Installation Tool

### Mounting

AXIS TQ9602 Counduit Top Box

### Storage

AXIS Surveillance Cards

For more accessories, go to [axis.com/products/axis-q9227-slv#compatible-products](http://axis.com/products/axis-q9227-slv#compatible-products)

## 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 2015/863, and standard EN IEC 63000:2018  
REACH in accordance with (EC) No 1907/2006. For SCIP UUID, see [echa.europa.eu](http://echa.europa.eu)

## Materials

Renewable carbon-based plastic content: 7% (recycled: 4%, bio-based:2%, carbon capture based: 1%)  
Screened for conflict minerals in accordance with OECD guidelines

To read more about sustainability at Axis, go to [axis.com/about-axis/sustainability](http://axis.com/about-axis/sustainability)

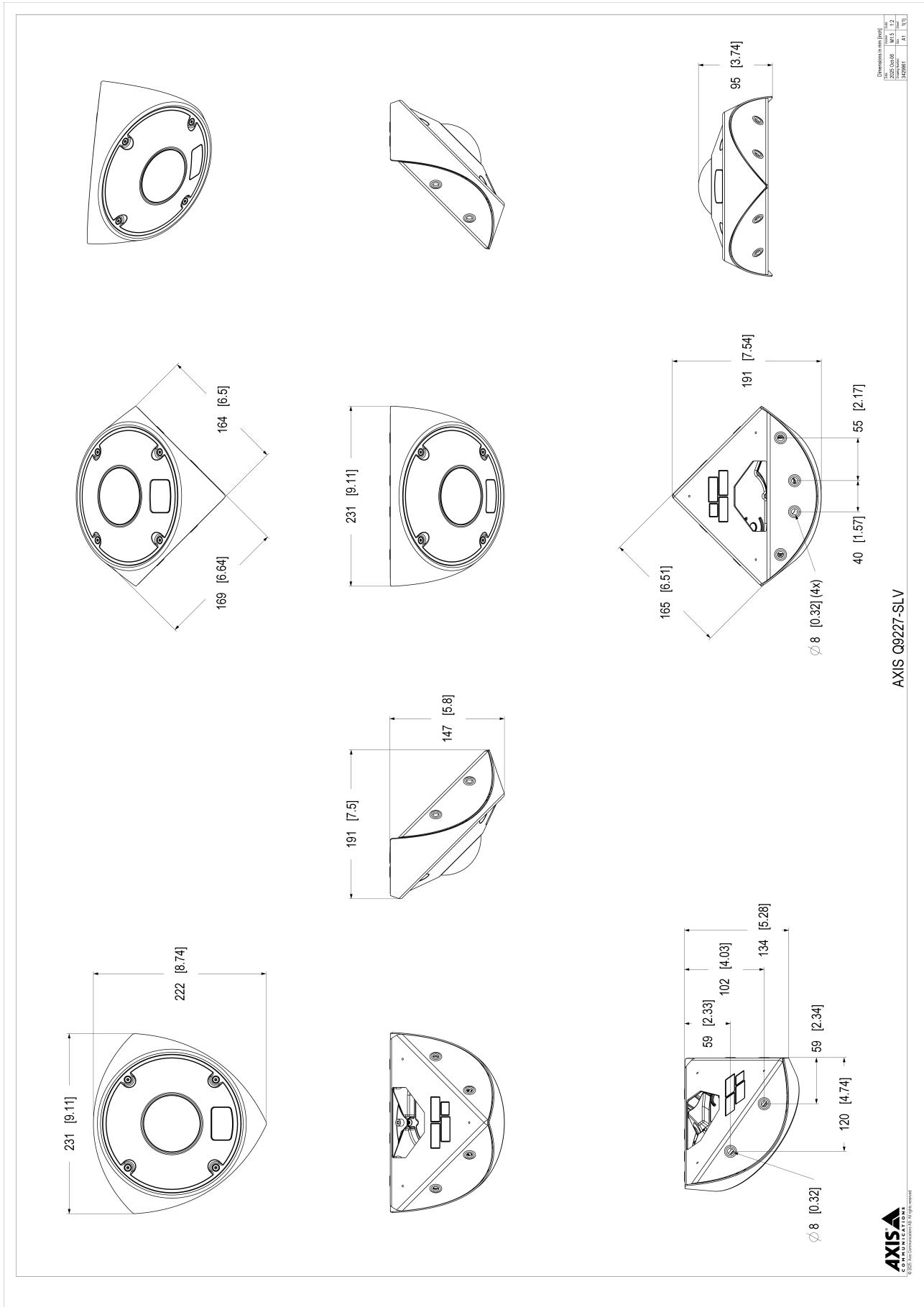
## Environmental responsibility

[axis.com/environmental-responsibility](http://axis.com/environmental-responsibility)

Axis Communications is a signatory of the UN Global Compact, read more at [unglobalcompact.org](http://unglobalcompact.org)

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

	DORI definition	Distance
Detect	25 px/m (8 px/ft)	46.1 m (151.2 ft)
Observe	63 px/m (19 px/ft)	19.4m (63.6 ft)
Recognize	125 px/m (38 px/ft)	10 m (32.8 ft)
Identify	250 px/m (76 px/ft)	5.1m (16.7 ft)



## Highlighted capabilities

### AXIS Audio Analytics

AXIS Audio Analytics uses adaptive audio detection to generate alarms on sudden increases in sound volume. With AI-based classifiers, it can detect screaming and shouting. You can also get extra confirmation by combining AXIS Audio Analytics with video analytics. This smart application only transmits metadata, ensuring privacy is safeguarded. A core feature of AXIS OS, AXIS Audio Analytics comes preinstalled at no extra cost.

### 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](http://axis.com/solutions/edge-vault).

### AXIS Live Privacy Shield

Remotely monitor activities both indoors and outdoors while safeguarding privacy in real-time.

With AI-based dynamic masking you can choose what to mask or blur while addressing rules and regulations protecting privacy and personal data. The application enables masking of moving and still objects such as humans, license plates, or backgrounds. The application works in real-time and on both live and recorded video streams.

### 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.