![AXIS COMMUNICATIONS]

AXIS P9117-PV Corner Camera

6 MP corner camera with no blind spots

AXIS P9117-PV delivers 360° panoramic view with no blind spots. This 6 MP corner-mounted camera includes Axis Lightfinder and Axis Forensic WDR for true colors and great details in challenging light or near darkness. AXIS TP9801 Cover Steel is also available as an accessory. Featuring a deep learning processing unit, it's possible to run powerful analytics on the edge. For instance, AXIS Object Analytics can detect and classify different objects of interest. With a built-in microphone, it's out-of-the-box-ready for AXIS Audio Analytics. Furthermore, Axis edge vault, a hardware-based cybersecurity platform, safeguards the device.

> **Full coverage and no blind spots**
> **6 MP with stereographic lens**
> **Built-in microphone and Axis Audio Analytics**
> **Vandal-resistant (IK10) and IP66-rated dust protection**
> **Built-in cybersecurity with Axis edge vault**

ONVIF® | GMST

AXIS P9117-PV Corner Camera

Camera

Image sensor
1/1.8" progressive scan RGB CMOS

Lens
1.1 mm, F2.2
Overview (1:1) :
Horizontal field of view: 176°
Vertical field of view: 176°
Corner View (4:3) :
Horizontal field of view: 115°
Vertical field of view: 100°
Fixed iris, fixed focus, IR corrected

Day and night
Automatic IR-cut filter

Minimum illumination
Color: 0.17 lux at 50 IRE, F2.2
B/W: 0.04 lux at 50 IRE, F2.2

Shutter speed
1/33500 s to 1/5 s

Camera adjustment
Digital roll: ±180°

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
Overview: 2160x2160 to 160x160 (1:1)
Corner View: 2048x1536 to 320x240 (4:3)
Corner View: 2048x1152 to 256x144 (16:9)

Frame rate
without WDR: 50/60 fps @ 50/60 Hz
with WDR: up to 25/30 fps @ 50/60 Hz

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
Video streaming indicator

WDR
Forensic WDR: Up to 120 dB depending on scene

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

Image settings
Saturation, contrast, brightness, sharpness, local contrast, tone mapping, white balance, day/night threshold, exposure mode, exposure zones, compression, mirroring, dynamic text and image overlay, and polygon privacy mask

Image processing
Axis Zipstream, Forensic WDR

Pan/Tilt/Zoom
Digital PTZ of view areas, digital PT of corner, preset positions, guard tours

Audio

Audio features
Automatic gain control
Speaker pairing
Audio privacy control

Audio streaming
Two-way (full duplex)
Audio analytics even when audio streaming is off

Audio input
Input through speaker pairing or portcast technology
10-band graphic equalizer
Built-in microphone (disabled by default): MEMS microphone

Audio output
Output through speaker pairing or portcast technology

Audio 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[1], HTTP/2, TLS[1], 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, TCP, UDP, IGMPv1/v2/v3, RTCP, DHCPv4/v6, SSH, LLDP, CDP, MQTT v3.1.1, Syslog, 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*.
One-click cloud connection
ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specifications at *onvif.org*
Support for Session Initiation Protocol (SIP) for integration with Voice over IP (VoIP) systems, peer to peer or integrated with SIP/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*.

Onscreen controls
Privacy masks
Media clip

Event conditions
Audio: audio detection
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, live stream active
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, tampering

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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).*

Event actions

Day-night mode
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
Status LED
Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email
WDR mode

Built-in installation aids

Pixel counter, digital roll, level grid

Analytics

Applications
Included
AXIS Object Analytics, AXIS Image Health Analytics, AXIS Audio Analytics, AXIS Scene Metadata, AXIS Video Motion Detection, Active tampering alarm, Elevator door state detector
Supported
AXIS Camera Application Platform enabling installation of third-party applications, see *axis.com/acap*

AXIS Object Analytics
Object classes: humans, vehicles (types: cars, buses, trucks, bikes, other)
Features: line crossing, object in area
Up to 10 scenarios
Metadata visualized with trajectories, color-coded bounding boxes and tables
Polygon include/exclude areas
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: adaptive audio detection, audio classification
Audio classes: scream, shout, glass break
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, confidence, position
Audio data: audio level

Approvals

Product markings
BIS, CE, ICES, KC, RCM, UKCA, UL/cUL, VCCI, WEEE

Supply chain
TAA compliant

EMC
EN 55032 Class A, EN 55035, 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

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

Environment
IEC/EN 60529 IP66, IEC/EN 62262 Class IK10,
IEC 60721-3-5 Class 5M3 (Vibration, Shock)
IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78

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, password protection, Axis Cryptographic Module (FIPS 140-2 level 1), AES-XTS-Plain64 256bit SD card encryption
Hardware: Axis Edge Vault cybersecurity platform 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)[2],
IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR, HTTPS/HSTS[2], TLS v1.2/v1.3[2], Network Time Security (NTS), X.509 Certificate PKI, host-based firewall

2. *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).*

Documentation

AXIS OS Hardening Guide
Axis Vulnerability Management Policy
Axis Security Development Model
To download documents, go to *axis.com/support/cybersecurity/resources*
To read more about Axis cybersecurity support, go to *axis.com/cybersecurity*

General

Casing
IP66, IK10-rated
Polycarbonate hard-coated dome
Color: White NCS S 1002–B
For repainting instructions and impact on warranty, contact your Axis partner

Mounting
Corner mounting on 3 or 2 surfaces (wall + wall or wall + ceiling)

Power
Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3
Typical 3.7 W, max 5.3 W

Connectors
Network: Shielded RJ45 10BASE-T/100BASE-TX PoE
Audio: Audio and I/O connectivity via AXIS T61 Mk II Audio and I/O Interfaces with portcast technology

Storage
Support for microSD/microSDHC/microSDXC card
Recording to network-attached storage (NAS)
For SD card and NAS recommendations, see *axis.com*

Operating conditions
-15 °C to 50 °C (5 °F to 122 °F)
Humidity 10–85% RH (non-condensing)
Maximum operating temperature (intermittent): 55 °C (131 °F)
Minimum startup temperature: –15 °C (5 °F)

Storage conditions
-40 °C to 65 °C (-40 °F to 149 °F)

Dimensions
Height: 92 mm (3.62 in)
Width: 146 mm (5.75 in)
Depth: 122 mm (4.80 in)

Weight
760 g (1.68 lb)

Box content
Camera, installation guide, RJ45 tool mounting, extra screw gaskets, extra cable gasket, owner authentication key

Optional accessories
AXIS TP9801 Cover Steel
AXIS TP9601 Conduit Top Box
AXIS T6101 Mk II Audio and I/O Interface
AXIS T6112 Mk II Audio and I/O Interface
AXIS T864 PoE+ over Coax Series
2N® 2WIRE
AXIS T8415 Wireless Installation Tool
AXIS Surveillance Cards
For more accessories, go to *axis.com/products/axis-p9117-pv#accessories*

System tools
AXIS Site Designer, AXIS Device Manager, product selector, accessory selector, lens calculator
Available at *axis.com*

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

Warranty
5-year warranty, see *axis.com/warranty*

Part numbers
Available at *axis.com/products/axis-p9117-pv#part-numbers*

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.*

Materials
Renewable carbon-based plastic content: 73% (recycled)
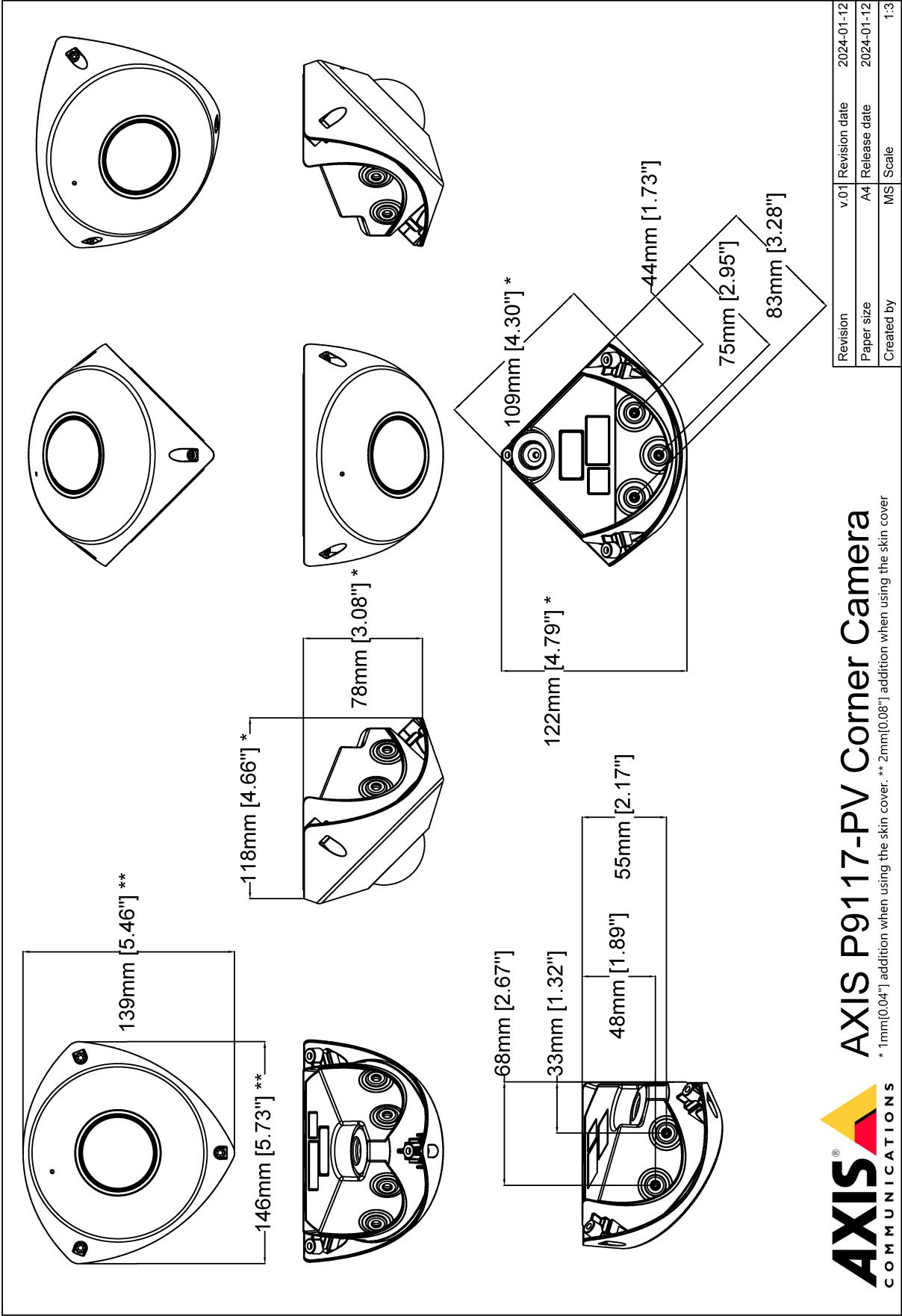Screened for conflict minerals in accordance with OECD guidelines
To read more about sustainability at Axis, go to *axis.com/about-axis/sustainability*

Environmental responsibility
axis.com/environmental-responsibility
Axis Communications is a signatory of the UN Global Compact, read more at *unglobalcompact.org*

Dimension drawing

139mm [5.46"] **
146mm [5.73"] **

78mm [3.08"] *
118mm [4.66"] *

109mm [4.30"] *
122mm [4.79"] *
44mm [1.73"]
75mm [2.95"]
83mm [3.28"]

68mm [2.67"]
33mm [1.32"]
48mm [1.89"]
55mm [2.17"]

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* 1mm[0.04"] addition when using the skin cover. ** 2mm[0.08"] addition when using the skin cover

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Detect, Observe, Recognize, Identify (DORI)

Center	DORI definition	Distance
Detect	25 px/m (8 px/ft)	21.3 m (69..9 ft)
Observe	63 px/m (19 px/ft)	8.5 m (27.9 ft)
Recognize	125 px/m (38 px/ft)	3.6 m (11.8 ft)
Identify	250 px/m (76 px/ft)	2.1 m (6.9 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.

Corner	DORI definition	Distance
Detect	25 px/m (8 px/ft)	30.2 m (99.1 ft)
Observe	63 px/m (19 px/ft)	12.0 m (39.4 ft)
Recognize	125 px/m (38 px/ft)	6.0 m (19.7 ft)
Identify	250 px/m (76 px/ft)	3.0 m (9.8 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 Corner 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.

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.

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.*

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.

Lightfinder

The Axis Lightfinder technology delivers high-resolution, full-color video with a minimum of motion blur even in near darkness. Because it strips away noise, Lightfinder makes dark areas in a scene visible and captures details in very low light. Cameras with Lightfinder discern color in low light better than the human eye. In surveillance, color may be the critical factor to identify a person, an object, or a vehicle.

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.

For more information, see *axis.com/glossary*

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