AXIS Q3819-PVE Panoramic Camera

Panoramic camera for seamless, 180° coverage

AXIS Q3819-PVE delivers a 180° panoramic overview of extensive areas. With 14 MP resolution and seamless stitching of all four images, it offers 180° horizontal and 38° vertical coverage. It's possible to mount two cameras back-to-back for a complete 360° overview using AXIS T94V01C Dual Camera Mount. It features AXIS Object Analytics for nuanced and remarkably granular object classification. Furthermore, it includes built-in motors allowing for remote pan/tilt/roll functionality and it offers smart pairing with Axis network speakers using edge-to-edge technology. Furthermore, Axis Edge Vault protects your Axis device ID and simplifies authorization of Axis devices on your network.

- > 14 MP multisensor with seamless stitching
- > 180° horizontal, 38° vertical coverage
- > AXIS Object Analytics
- > AXIS Edge Vault, TPM module and Lightfinder
- > Built-in motors for remote pan/tilt/roll

AXIS Q3819-PVE Panoramic Camera

Camera

Image sensor
4 x 5 MP 1/2.5" progressive scan RGB CMOS

Lens
Fixed 5.9 mm, F1.88
Horizontal field of view: 180°
Vertical field of view: 38°

Day and night
Automatically removable infrared-cut filter

Minimum illumination
With Forensic WDR and Lightfinder:
Color: 0.16 lux, F2.0
B/W: 0.06 lux, F2.0

Shutter speed
1/40000 to 1/25 s

Camera adjustment
Pan ± 135°
Tilt 15° to 92°
Roll ± 8°

System on chip (SoC)

Model
ARTPEC-7 (x2)

Memory
2048 MB RAM, 512 MB Flash

Compute capabilities
Machine learning processing unit (MLPU)

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
8192x1728 (14.2 MP) to 608x128

Frame rate
14.2 MP @ 25/30 fps (50/60 Hz) WDR

Video streaming
One configurable stream in H.264, H.265 and Motion JPEG in full frame rate
Multiple individually configurable streams in reduced frame rate
Controllable frame rate and bandwidth
VBR/ABR/MBR H.264/H.265
Low latency mode

Image settings
Saturation, contrast, brightness, sharpness, Forensic WDR: up to 120 dB depending on scene, white balance, day/night threshold, exposure mode, compression, dynamic text and image overlay, orientation aid, exposure control, noise reduction, fine tuning of behavior at low light, polygon privacy masks

Audio

Audio streaming
Two-way audio via edge-to-edge technology

Audio input/output
External microphone input, ring-power, digital audio input, automatic gain control, 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, 44.1 kHz ACC-LC, LPCM
Configurable bit rate

Network

Network protocols
IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTP/2, HTTPS[1], TLS[1], 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, RTP, SRTP/RTSPS, TCP, UDP, IGMP, RTCP, ICMP, DHCPv4/v6, ARP, SSH, LLDP, CDP, MQTT, 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
ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S and ONVIF® Profile T, specification at *onvif.org*

Event conditions
Analytics, external input, supervised external input, edge storage events, virtual inputs through API
Audio: audio detection
Digital audio: digital signal contains Axis metadata, digital signal as invalid sample rate, digital signal missing, digital signal ok
Device status: above operating temperature, above or below operating temperature, below operating temperature, fan failure, IP address removed, network lost, new IP address, shock detected, storage failure, system ready, within operating temperature, casing open, ring power overcurrent protection
Edge storage: recording ongoing, storage disruption, storage health issues detected
I/O: digital input, manual trigger, virtual input
MQTT subscribe
Scheduled and recurring: scheduled event
Video: live stream open, average bitrate degradation, day-night mode, tampering

Event actions
Day/night mode, overlay text, video recording to edge storage, pre- and post-alarm video buffering, send SNMP trap, play audio clipm I/O events, status LED events
File upload: FTP, SFTP, HTTP, HTTPS network share, email
MQTT publish
Notification: email, HTTP, HTTPS TCP

Built-in installation aids
Remote Pan/tilt/roll: designed to withstand at least 200 full cycles, autoroll, pixel counter, leveling guide

Analytics

Applications
Included
AXIS Object Analytics
AXIS Video Motion Detection, AXIS Scene Metadata, AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard, active tampering alarm, audio detection
Supported
Support for AXIS Camera Application Platform enabling installation of third-party applications, see *axis.com/acap*

AXIS Object Analytics
Object classes: humans, vehicles
Scenarios: line crossing, object 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

AXIS Scene Metadata
Object classes: humans, vehicles
Object attributes: confidence, position

Approvals

EMC
EAC, EN 55032 Class A, EN 55035, EN 50121-4, EN 55024, EN 61000-6-1, EN 61000-6-2, CISPR 24, CISPR 35
Australia/New Zealand: RCM AS/NZS CISPR 32 Class A
Canada: ICES-3(A)/NMB-3(A)
Japan: VCCI Class A
Korea: KC KN32 Class A, KC KN35
USA: FCC Part 15 Subpart B Class A
Railway: IEC 62236-4

Safety
IEC/EN/UL 60950-22, IEC/EN/UL 62368-1, CAN/CSA C22.2 No. 62368-1, CAN/CSA-C22.2 No. 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 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: Axis Edge Vault cybersecurity platform TPM 2.0 (CC EAL4+, FIPS 140-2 Level 2), secure element (CC EAL 6+), Axis device ID, secure boot

Network security
IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)[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

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*
To read more about Axis cybersecurity support, go to *axis.com/cybersecurity*

General

Casing
IP66-/IP67- and NEMA 4X-rated, IK10-rated impact-resistant casing with polycarbonate hard coated clear dome, aluminum base and dehumidifying membrane
Color: white NCS S 1002-B
Casing open detection
For repainting instructions and impact on warranty, contact your distributor partner.

Mounting
Mounting bracket with junction box holes (double-gang, single-gang, 4" square, and 4" octagon) and for wall or ceiling mount
¾" (M25) conduit side entries

Sustainability
PVC free

Power
Power over Ethernet (PoE) IEEE 802.3at Type 2 Class 4
Typical 12 W, max 22.5 W

Connectors
Shielded RJ45 1000BASE-T
Terminal block for two configurable supervised inputs/digital outputs (12 V DC output, max load 50 mA), 3.5 mm analog/digital mic/line in

Storage
Support for microSD/microSDHC/microSDXC card
Support for SD card encryption (AES-XTS-Plain64 256bit)
Support for recording to network-attached storage (NAS)

Operating conditions
-40 °C to 50 °C (-40 °F to 122 °F)
Humidity 10–100% RH (condensing)
Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F)
Start-up temperature: -40 °C

Storage conditions
-40 °C to 65 °C (-40 °F to 149 °F)
Humidity 5–95% RH (non-condensing)

Dimensions
Height: 170 mm (6.6 in)
ø 195 mm (7.6 in)
With weathershield:
Height: 221 mm (8.7 in)
ø 206 mm (8.1 in)

Weight
2.4 kg (4.5 lb)

Mounting height
Recommended: 4 m and up

Included accessories
Installation guide, Windows® decoder 1-user license, weathershield, RESITORX® T20 screw bit, connector guard

Optional accessories
AXIS T8415 Wireless Installation Tool
AXIS Surveillance Cards
AXIS TQ3102 Pendant Kit
AXIS TQ3101-E Pendant Kit
AXIS TQ3201-E Recessed Mount[3]
For more accessories, see *axis.com*

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).*
3. *The camera's tampering alarm doesn't work when mounted in AXIS TQ3201-E Recessed Mount*

Languages

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

Warranty

5–year warranty, see *axis.com/warranty*

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