AXIS Q6300-E Panoramic Camera

AI-based, 360° overview, easy installation

This multidirectional camera offers 4x5 MP with four ½" sensors. Designed for operation with AXIS Q61/Q63/P56 PTZ Series, you can move from overview to zoomed-in details in one click. Directional audio detection redirects the PTZ camera to the audio source whenever an audio incident is detected. A deep learning processing unit lets you run advanced features and powerful analytics at the edge. Axis Edge Vault, our hardware-based cybersecurity platform, safeguards the device and protects sensitive information from unauthorized access. Furthermore, a USB port allows installers to insert a Wi-Fi dongle and quickly see the camera view as they adjust it.

- > 360° camera with 4 x 5 MP sensors
- > Current AXIS Q61/Q63/P56-E PTZ Camera recommended
- > Easy installation with support for Wi-Fi dongle
- > Directional audio detection
- > Built-in cybersecurity with Axis Edge Vault

AXIS Q6300-E Panoramic Camera

Camera

Image sensor
4x 1/2" progressive scan RGB CMOS
Pixel size 2.9 µm

Lens
3.7 mm, F2.0
Horizontal field of view: 360°, 108.4° for each sensor
Vertical field of view: 84°
Minimum focus distance: 1.0 m (3.3 ft)
Autofocus, M14 mount, fixed iris

Day and night
Automatic IR-cut filter

Minimum illumination
Color: 0.06 lux at 50 IRE, F2.0
B/W: 0.03 lux at 50 IRE, F2.0

Shutter speed
1/66500 s to 2 s

Camera adjustment
Pan ±180°, tilt -40 to +75°, rotation ±95°

System on chip (SoC)

Model
ARTPEC-8 (x2)

Memory
8 GB RAM, 8 GB 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 x 2592x1944 to 320x240
Default: 2592x1944

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

Video streaming
Up to 20 unique and configurable video streams[1]
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

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

Image settings
Saturation, contrast, brightness, sharpness, white balance, day/night threshold, local contrast, tone mapping, exposure mode, exposure zones, defog, compression, rotation: 0°, 90°, 180°, 270° including corridor format, text and image overlay, dynamic text and image overlay, overlay widget, 32 individual polygon privacy masks including mosaic privacy masks
Scene profiles: outdoor, indoor, forensic

Image processing
Axis Zipstream, Forensic WDR, Lightfinder 2.0

Audio

Audio features
Speaker pairing

Audio output
Output through speaker pairing or portcast technology

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.*

Network

Network protocols
IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS[2], HTTP/2, TLS[2], 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, 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)

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*

Video management systems
Compatible with AXIS Camera Station Edge, AXIS Camera Station Pro, and video management software from Axis' partners available at *axis.com/vms*.

Onscreen controls
Privacy masks
Autopilot
Directional audio detection
Media clip
Heater

Edge-to-edge
Speaker pairing

Event conditions
Application: autopilot tracking
Device status: above/below operating temperature, fan failure, IP address blocked, IP address removed, live stream active, network lost, new IP address, PTZ power failure, system ready, within operating temperature
Directional audio detection: audio detected
Edge storage: recording ongoing, storage disruption, storage health issues detected
I/O: manual trigger, virtual input
MQTT: MQTT client connected, stateless
PTZ: PTZ malfunctioning, PTZ movement on camera, PTZ ready
Scheduled and recurring: schedule
Video: average bitrate degradation, day-night-mode, tampering

Event actions
Autopilot: turn on autopilot
Day-night-mode: use mode
Defog: set mode
Directional audio detection: turn on DAD, turn on PTZ move
Images: send through FTP, SFTP, HTTP, HTTPS, network share and email
LEDs: flash status LED
MQTT: send publish message
Notification: send through HTTP, HTTPS, TCP and email
Overlay text: use overlay text
Recordings: record video
Security: erase configuration
SNMP trap messages: send message
Video clips: FTP, SFTP, HTTP, HTTPS, network share and email

Built-in installation aids
Pixel counter, remote focus, level grid

Analytics

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

Multisensor analytics
4 channels analytics support

AXIS Object Analytics
Object classes: humans, vehicles (types: cars, buses, trucks, bikes, other)
Scenarios: line crossing, object in area, object in area - Autopilot, time in area, crossline counting, occupancy in area, tailgating detection, PPE monitoring[BETA], motion in area, motion in area - Autopilot, 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 Audio Analytics
Features: adaptive audio detection, audio classification
Audio classes: scream, shout, glass break
Event metadata: audio detections, classifications

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).*

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
UL/cUL, 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
Australia/New Zealand: RCM AS/NZS CISPR 32 Class A
Canada: ICES(A)/NMB(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. 62368-1 ed. 3,
IEC/EN/UL 62368-1 ed. 3

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, IEC/EN 62262 IK10, NEMA 250
Type 4X, NEMA TS 2 (2.2.7-2.2.9), ISO 12944-6 C5,
ISO 21207 (Method B)

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

Network security
IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)[3],
IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR,
HTTPS/HSTS[3], TLS v1.2/v1.3[3], 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-, NEMA 4X- and IK10-rated
Polycarbonate hard-coated dome
Aluminum and polymer casing
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.*

Power
Panoramic camera with Solo kit:
Power over Ethernet (PoE) IEEE 802.3bt 60 W
Power consumption: typical 14.3 W, max 47.3 W
Panoramic camera with PTZ camera:
Warmer than -30 °C (-22 °F): Power over Ethernet (PoE) IEEE 802.3bt 90 W
Power consumption: typical 29.3 W, max 80 W
Colder than -30 °C (-22 °F): AXIS High PoE 120 W
Power consumption: typical 29.3 W, max 103.4 W
Features: power profiles, power meter

3. *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).*

Connectors
Network: Shielded RJ45 10BASE-T/100BASE-TX/1000BASE-T PoE
USB: for Wi-Fi dongle compatible with Mediatek Inc MT7612U chip, supported USB class: Vendor specific

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*

Operating conditions
Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F)
Panoramic camera with Solo kit:
Temperature: -50 °C to 55 °C (-58 °F to 131 °F)
Start-up temperature: -40 °C (-40 °F)
Panoramic camera with PTZ camera:
Temperature with Power over Ethernet (PoE)
IEEE 802.3bt 90 W: -30 °C to 55 °C (-22 °F to 131 °F)
Start-up temperature: -30 °C (-22 °F)
Temperature with Axis High PoE 120 W: -50 °C to 55 °C (-58 °F to 131 °F)
Start-up temperature: -40 °C (-40 °F)
Humidity: 10–100% RH (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.
Effective Projected Area (EPA): 0.047 m^2 (0.5 ft^2)

Weight
4.0 kg (8.8 lb))

Box content
Camera, adapter bracket, installation guide, owner authentication key

Optional accessories
Lens M14 7.6 mm F2.0 IR, Horizontal field of view: 58.5°
Lens M14 14.1 mm F2.0 IR, Horizontal field of view: 31°
Lens M14 21.4 mm F2.0 IR, Horizontal field of view: 19.9°
Lens M14 30.8 mm F2.4 IR, Horizontal field of view: 13.8°
AXIS T8415 Wireless Installation Tool
AXIS Surveillance Cards
For more accessories, go to *axis.com/products/axis-q6300-e#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, Portuguese, Polish, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese

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

Part numbers
Available at *axis.com/products/axis-q6300-e#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 2015/863, and standard EN IEC 63000:2018
REACH in accordance with (EC) No 1907/2006. For SCIP UUID, see *echa.europa.eu*

Materials
Renewable carbon-based plastic content: 42,3% (recycled: 12.8%, bio-based: 29.5%)
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*

Detect, Observe, Recognize, Identify (DORI)

3.7 mm lens

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

8 mm lens

	DORI definition	Distance
Detect	25 px/m (8 px/ft)	99.0 m (324.8 ft)
Observe	63 px/m (19 px/ft)	40.8 m (133.9 ft)
Recognize	125 px/m (38 px/ft)	20.8 m (68.2 ft)
Identify	250 px/m (76 px/ft)	10.5 m (34.4 ft)

14 mm lens

	DORI definition	Distance
Detect	25 px/m (8 px/ft)	180.9 m (593.5 ft)
Observe	63 px/m (19 px/ft)	75.3 m (247.0 ft)
Recognize	125 px/m (38 px/ft)	38.5 m (126.3 ft)
Identify	250 px/m (76 px/ft)	19.4 m (63.6 ft)

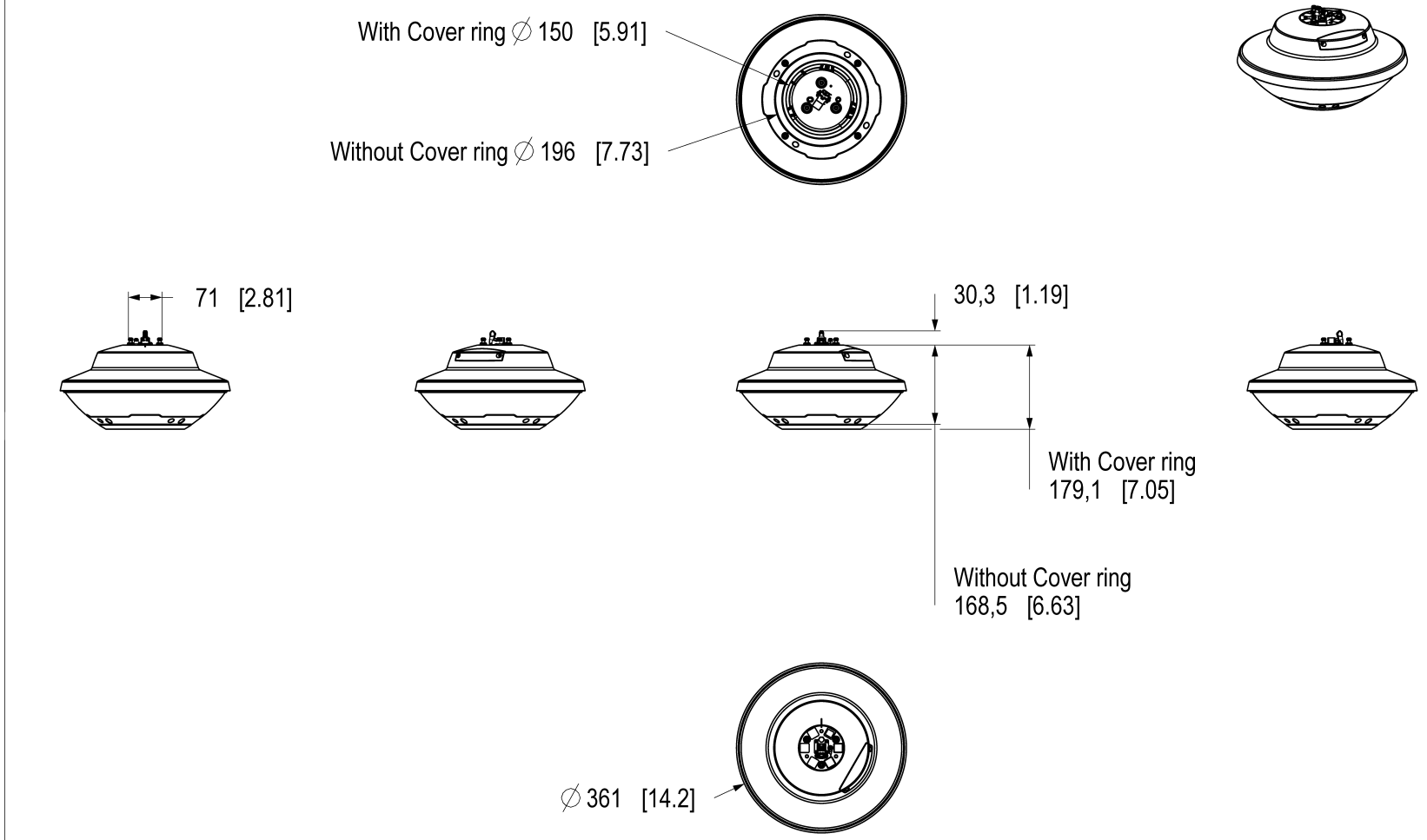
21 mm lens

	DORI definition	Distance
Detect	25 px/m (8 px/ft)	317.5 m (1041.7 ft)
Observe	63 px/m (19 px/ft)	120.9 m (396.7 ft)
Recognize	125 px/m (38 px/ft)	60.1 m (197.2 ft)
Identify	250 px/m (76 px/ft)	29.9 m (98.1 ft)

31 mm lens

	DORI definition	Distance
Detect	25 px/m (8 px/ft)	428.7 m (1406.5 ft)
Observe	63 px/m (19 px/ft)	169.3 m (555.4 ft)
Recognize	125 px/m (38 px/ft)	85.2 m (279.5 ft)
Identify	250 px/m (76 px/ft)	42.6 m (139.8 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 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.



AXIS Q6300-E PANORAMIC CAMERA

Dimensions in mm [inch]

Date	Version	Scale
2025 Jan-13	M1.4	1:8
Drawing Number	Size	Sheet
3130859	A3	1(1)

Highlighted capabilities

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*.

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.

Directional audio detection

Many Axis network cameras support audio detection analytics, which can alert the operators and be a valuable complement to video by creating immediate alerts upon detection of sounds like gunshots, car crashes, or screams. Directional audio detection is a more advanced feature that enables AXIS Q6300-E to detect audio incidents and automatically point an integrated PTZ camera in the direction to the audio source. The feature reacts to rapidly increasing sound amplitudes that exceed a pre-defined trigger level.