

# AXIS Q8615-E PTZ Camera

# Positioning camera with 1/2" sensor and analytics

This high-performance camera offers HDTV 1080p resolution with 31x optical zoom for outstanding image quality. It can be column-mounted for a continuous, unobstructed  $360^{\circ}$  panoramic view and a ground-to-sky view from  $-90^{\circ}$  to  $+45^{\circ}$ . Featuring a  $\frac{1}{2}$ " sensor, Forensic WDR, and Lightfinder it ensures sharp, clear images even when in extreme low-light. And it comes with built-in analytics from Axis. For instance, Axis Object Analytics can detect and classify people and vehicles – all tailored to specific needs. It includes an SFP slot to support long-distance fiber connection. Plus, an integrated, long-life silicone wiper ensures cost-effective maintenance.

- > Superior light sensitivity with Lightfinder
- > WDR, 31x optical zoom
- > Support for intelligent analytics
- > Built-in cybersecurity features
- > IR illumination as an optional accessory





# AXIS Q8615-E PTZ Camera

### Variants

AXIS Q8615-E 50 Hz AXIS Q8615-E 60 Hz

# Camera

### Image sensor

1/2" progressive scan RGB Outdoor CMOS

### Lens

Varifocal, 6.9–214.6 mm, F1.36–4.6 Horizontal field of view: 60.6°–2.0° Vertical field of view: 36.5°–1.1° P-Iris control Minimum focus distance: 1 m (3.3 ft)

### Day and night

Automatically removable infrared-cut filter

### Minimum illumination

**Color:** 0.06 lux at 50 IRE F1.36 **B/W:** 0.001 lux at 50 IRE F1.36

### Shutter speed

1/111000 to 1/2 s

### Pan/Tilt/Zoom

Pan: 360° endless, 0.05°/s to 120°/s Tilt (default): -90° to +45°, Tilt (inverted<sup>1</sup>): -45° to +90° Tilt speed: 0.05°/s to 60°/s Jerk-free movements at low speed: ±0.01°/s (at 0.05°/s) Zoom: 31x optical zoom, 12x digital zoom, total 372x zoom Preset accuracy: 0.05° 256 preset positions, guard tour, control queue, onscreen directional indicator, focus recall, de-icing control, dynamic load balancing

# System on chip (SoC)

#### Model ARTPEC-7

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

16:9: 1920x1080 to 320x180

### Frame rate

Up to 50/60 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

### Image settings

Saturation, contrast, brightness, sharpness, Forensic WDR – Up to 120 dB depending on scene, white balance, day/night threshold, tone mapping, exposure mode, exposure zones, defogging, barrel distortion correction, electronic image stabilization, compression, dynamic text and image overlay, 32 individual polygon privacy masks including mosaic and chameleon privacy masks

Signal-to-noise ratio >55 dB

# 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<sup>®</sup>, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, RTSP, RTCP, RTP, SRTP/ RTSPS, TCP, UDP, IGMPv1/v2/v3, DHCPv4/v6, ARP, SSH, NTCIP, LLDP, CDP, MQTT v3.1.1, Secure syslog (RFC 3164/5424, UDP/TCP/TLS), Link-Local address (ZeroConf)

1. The camera housing can be mounted in an inverted configuration if tilting directly upwards is preferred.

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).

# System integration

# **Application Programming Interface**

Open API for software integration, including VAPIX<sup>®</sup>, metadata and AXIS Camera Application Platform (ACAP); specifications at *axis.com/developercommunity*. One-click cloud connection

ONVIF<sup>®</sup> Profile G, ONVIF<sup>®</sup> Profile M, ONVIF<sup>®</sup> Profile S, and ONVIF<sup>®</sup> Profile T, specifications at *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*.

# **Onscreen controls**

Timed wiper Privacy masks White light LED IR illumination

# **Event conditions**

Device status: above operating temperature, above or below operating temperature, below operating temperature, fan failure, IP address removed, network lost, new IP address, PTZ power failure, storage failure, system ready, within operating temperature Edge storage: recording ongoing, storage disruption, storage health issues detected I/O: digital input, manual trigger, virtual input MQTT: subscribe PTZ: PTZ malfunctioning, PTZ movement, PTZ preset position reached, PTZ ready Scheduled and recurring: scheduled event Video: average bitrate degradation, day-night mode,

live stream open

# **Event** actions

Day-night mode Defog: toggle defog once, use defog filter while the rule is active Guard tour: run while the rule is active, start I/O: toggle I/O once, toggle I/O while the rule is active IR illumination: turn on, use IR lights while the rule is active MQTT: publish Notification: HTTP, HTTPS, TCP and email Overlay text Preset positions PTZ autotracking Recordings: SD card and network share SNMP trap messages: send, send while the rule is active Washer WDR mode White illumination Wiper Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email

# Built-in installation aids

Pixel counter

# Analytics

# Applications

Included

AXIS Object Analytics, AXIS Scene Metadata, AXIS Video Motion Detection, Orientation Aid PTZ, AXIS OSDI Zones, AXIS PTZ Autotracking, active gatekeeper Supported

AXIS Perimeter Defender, AXIS License Plate Verifier Support for additional applications if the device is used with compatible accessories. For more information, contact your Axis partner.

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, crossline counting, time 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, faces, vehicles (types: cars, buses, trucks, bikes), license plates **Object attributes:** confidence, position

# Approvals

### EMC

EN 55032 Class A, EN 55035, EN 50121-4, EN 61000-3-2, EN 61000-3-3, 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 9832 Class A, KS C 9835 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 62262 IK10<sup>3</sup>, IEC/EN 60529 IP66, ISO 4892-2, NEMA 250 Type 4x, NEMA TS 2 (2.2.7-2.2.9)

### 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 keystore, signed video, secure boot

### **Network security**

IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)<sup>4</sup>, IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR, HTTPS/HSTS<sup>4</sup>, TLS v1.2/v1.3<sup>4</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 To read more about Axis cybersecurity support, go to axis.com/cybersecurity

# General

### Casing

IP66-, IK10<sup>3</sup>- and NEMA 4X-rated powder coated aluminum casing Color: white NCS S 1002-B Front window: tempered glass with anti-reflective coating Long-life silicone wiper Sunshield: high-impact UV-stabilized thermoplastic

### **Sustainability**

PVC free, 18% recycled plastics, , 1% bioplastic

### Power

20-28 V AC/DC Typical: 9.6 W Max: 204 W Power loss recovery TVS 2 kV surge protection **I/O connector** Output voltage: 12 V DC Max load: 50 mA

#### Connectors

Network: SFP slot (SFP module not included)<sup>5</sup> Network: RJ45 10BASE-T/100BASE-TX/1000BASE-T Power: DC input, terminal block I/O: 6-pin terminal block with 4 configurable inputs/ outputs

#### Storage

Support for SD/SDHC/SDXC 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* 

<sup>3.</sup> Excluding front window.

<sup>4.</sup> 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).

<sup>5.</sup> If the network link is established via both the SFP and RJ45 connectors, the former acts as the primary link and the latter as the failover link.

#### www.axis.com

### **Operating conditions**

Normal: -50 °C to 55 °C (-58 °F to 131 °F) Maximum (intermittent): 65 °C (149 °F) Arctic Temperature Control: start-up at -40 °C (-40 °F) Start-up temperature: -40 °C Humidity 10–100% RH (condensing) Wind speed (sustained): 47 m/s (106 mph), without sunshield > 60 m/s (135 mph)<sup>6</sup>

### Storage conditions

-40 °C to 70 °C (-40 °F to 158 °F) Humidity 5-95% RH (non-condensing)

### Dimensions

229 x 411 x 579 mm (9 x 16 x 22.8 in) Maximum height with 45° tilt upwards: 680 mm (27 in) Maximum width/depth with 360° pan clearance: 633 mm (25 in) Effective projected area (EPA): 0.119 m<sup>2</sup>

### Weight

14.4 kg (31.7 lb)

### Included accessories

Installation guide, Windows<sup>®</sup> decoder 1-user license, power connector, I/O connector AXIS Q8615-E 60 Hz: ferrite

### **Optional accessories**

AXIS T94J01A Wall Mount AXIS T94N01G Pole Mount AXIS T95A64 Corner Bracket AXIS PT IR Illuminator Kit C AXIS Washer Kit B AXIS Cable 24 V DC/24-240 V AC 22 m AXIS T8611 SFP Module LC.LX AXIS T8612 SFP Module LC.SX AXIS T8613 SFP Module 1000BASE-T Power supply DIN PS24 480 W For more accessories, see *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

<sup>6.</sup> The values shown are based on results from actual wind tunnel testing. The maximum wind speed when the unit is stationary is not known due to wind speed limit of 60 m/s (135 mph) at the test lab. For drag force calculations, use Effective Projected Area (EPA).