

# **AXIS Q1615 Mk III Network Camera**

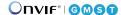
# For analytics with deep learning

AXIS Q1615 Mk III combines exceptional imaging and video performance with outstanding hardware and processing capabilities to provide the perfect platform for analytics based on artificial intelligence (AI) with deep learning. A fixed box camera with Q-line functionality, it features an innovative dual chipset that is the basis for nuanced and remarkably granular object classification. This advanced hardware offers a unique opportunity to take advantage of tailor-made third-party applications based on deep learning. The dual chipset also makes it possible for preinstalled AXIS Object Analytics to distinguish between bikes, cars, buses, trucks, and so on.

- > Powerful AI with deep learning
- > Granular object classification
- > Support for 3rd-party AI applications
- > Edge-based processing for scalability
- > Premium Axis Q-line camera features







## AXIS Q1615 Mk III Network Camera

## Camera

## Image sensor

1/2.8" Progressive scan RGB CMOS

#### Lens

Varifocal, IR corrected, CS-mount 2 MP (16:9):

2.8-8.5 mm, F1.2

Horizontal field of view: 116°-40° Vertical field of view: 61°-22°

i-CS lens

#### Day and night

Automatically removable infrared-cut filter

## Minimum illumination

HDTV 1080p 25/30 fps with Forensic WDR and Lightfinder:

Color: 0.05 lux, B/W: 0.01 lux at 50 IRE, F1.2 HDTV 1080p 50/60 fps with Forensic WDR and Lightfinder:

Color: 0.1 lux, B/W: 0.02 lux at 50 IRE, F1.2

HDTV 1080p 100/120 fps:

Color: 0.2 lux, B/W: 0.04 lux at 50 IRE, F1.2

### Shutter speed

1/125000 to 2 s

# System on chip (SoC)

#### Model

ARTPEC-7

#### Memory

2048 MB RAM, 1024 MB Flash

#### Compute capabilities

Deep learning processing unit (DLPU)

## Video

#### Video compression

H.264 (MPEG-4 Part 10/AVC), Main, Baseline and High Profile H.265 (MPEG-H Part 2/HEVC) Main Profile Motion JPEG

#### Resolution

HDTV 1080p 100/120 fps (no WDR): 1920x1080 to

HDTV 1080p 50/60 fps (WDR):1920x1080 to 160x90 HDTV 1080p 25/30 fps (WDR): 1920x1080 to 160x90

### Frame rate

Up to 100/120 fps (50/60 Hz) in 1080p (no WDR)

## 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
Low latency mode
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, local contrast, exposure mode, exposure zones, defogging, electronic image stabilization, barrel distortion correction, compression, rotation: auto, 0°, 90°, 180°, 270° including Corridor Format, dynamic text and image overlay, polygon privacy mask, mirroring of images Scene profiles: forensic, vivid, traffic overview

## Pan/Tilt/Zoom

Digital PTZ, uploadable PTZ driver (Pelco D pre-installed)

## **Audio**

### Audio streaming

Two-way, full duplex

## 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

## Audio input/output

External microphone input, line input, digital input with ring power, built-in microphone (can be disabled), balanced microphone, balanced input, automatic gain control, line output 24 bit AD/DA-conversion

## **Network**

## **Network protocols**

IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTP/2, HTTPS<sup>1</sup>, TLS<sup>1</sup>, QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnPTM, SNMPv1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, NTS, RTSP, RTP, SFTP, 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/developercommunity.

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, AXIS Camera Station 5, and video management software from Axis' partners available at axis.com/vms.

#### Onscreen controls

Electronic image stabilization Day/night shift Defogging Wide dynamic range Video streaming indicator

### **Event conditions**

Analytics, external input, supervised external input, edge storage events, virtual inputs through API

Audio: audio detection

Device status: above operating temperature, above or below operating temperature, below operating temperature, IP address removed, network lost, new IP address, shock detection, ring power overcurrent protection, storage failure, system ready, within operating temperature

Edge storage: recording ongoing, storage disruption 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: live stream open

### **Event actions**

MQTT publish

Record video: SD card and network share

Upload of images or video clips: FTP, SFTP, HTTP, HTTPS,

network share and email

Pre- and post-alarm video or image buffering for

recording or upload

Notification: email, HTTP, HTTPS, TCP and SNMP trap

PTZ: PTZ preset, start/stop quard tour

Overlay text, external output activation, play audio clip, zoom preset, defog mode, PTZ control

### **Built-in installation aids**

Focus assistant, pixel counter, leveling assistant, camera orientation aid, traffic wizard i-CS: Remote zoom and focus Other lens: Remote back focus

## **Analytics**

## **Applications**

Included

AXIS Object Analytics, AXIS Scene Metadata, **AXIS Live Privacy Shield** 

AXIS Video Motion Detection, active tampering alarm, audio detection

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 (types: cars, buses,

trucks, bikes, other)

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 Confidence, position

<sup>1.</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).

# 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 keystore, secure boot

## **Network security**

IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)<sup>2</sup>, IEEE 802.1AE (MACsec PSK/EAP-TLS), HTTPS/HSTS<sup>2</sup>, TLS v1.2/v1.3<sup>2</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

Casing: Metal (zinc) Color lid: Silver RAL 9006

Color chassi: Black - NCS S 9000-N

## Mounting

1/4"-20 tripod screw thread Camera stand included

## Sustainability

PVC free, BFR/CFR free

#### **Power**

Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3, max 12.95 W, typical 8.2 W 10-28 V DC, max 12.1 W, typical 8.3 W Power redundancy

#### Connectors

Shielded RJ45 10BASE-T/100BASE-TX/1000BASE-T PoE DC input

I/O: 6-pin 2.5 mm terminal block for four configurable inputs/outputs(12 V DC output, max load 50 mA). Two of the ports can be supervised.

RS485/RS422, 2 pcs, 2 pos, full duplex, terminal block 3.5 mm mic/line in, 3.5 mm line out

i-CS connector (compatible with P-Iris and DC-iris) AXIS T92G20 connector

## 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**

-10 °C to 55 °C (14 °F to 131 °F) Humidity 10-85% RH (non-condensing)

## Storage conditions

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

## **Approvals**

## EMC

EN 55032 Class A, EN 61000-3-2, EN 61000-3-3, EN 55024, EN 55035, EN 61000-6-1, EN 61000-6-2, FCC Part 15 Subpart B Class A, ICES-3(A)/NMB-3(A), VCCI Class A, RCM AS/NZS CISPR 32 Class A, EAC, KCC KN32 Class A, KN35

#### Safety

IEC/EN/UL 62368-1, IS 13252

## Environment

IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-7, IEC 60068-2-78

Network NIST SP500-267

#### **Dimensions**

82 x 58 x 195 mm (3.2 x 2.3 x 7.7 in)

## Weight

1120 g (2.5 lb)

## Included accessories

Stand

Connector kit, Resistorx® T20 tool, Installation Guide, Windows® decoder 1-user license

<sup>2.</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).

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## **Optional lenses**

Lens CS 4-10 mm F0.9 P-Iris Ricom 2MP Lens DC-iris 8-26 mm F0.9 Fujinon Varifocal Lens 8-80 mm, DC-iris Lens i-CS 9-50 mm F1.5 8 MP Lens CS 12-50 mm F1.4 P-Iris 8 MP

## **Optional accessories**

Axis mounts, Axis lenses, Axis midspans, Axis microphones AXIS TQ1809-LE Housing T92G AXIS T92E20 Outdoor Housing AXIS T8355 Digital Microphone For more accessories, see axis.com

## 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

### **Export control**

The product contains U.S.-origin controlled technology/component, the US Export Administration Regulations (EAR) are always applicable to the product. You should comply at all times with all applicable national and international (re-) export control regulations.

