

AXIS Q1615-LE Mk III Network Camera

For analytics with deep learning

AXIS Q1615-LE 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-LE 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: 102°–40°

Vertical field of view: 58°–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

0 lux with IR illumination on

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 160x90

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°,

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, 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, HTTPS¹, TLS¹, QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP™, SNMPv1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, PTP, 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® and AXIS Camera Application Platform; specifications at axis.com

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, casing open, 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 guard 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

Supported

AXIS Perimeter Defender
AXIS License Plate Verifier
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

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 (ey@cryptsoft.com).

Approvals

EMC

EN 50121-4, EN 55032 Class A, EN 61000-3-2, EN 61000-3-3, EN 55024, EN 55035, EN 61000-6-1, EN 61000-6-2, EAC

Australia/New Zealand: RCM AS/NZS CISPR 32 Class A

Canada: ICES-3(A)/NMB-3(A)

Japan: VCCI Class A

Korea: KCC KN32 Class A, KN35

USA: FCC Part 15 Subpart B Class A

Railway: IEC 62236-4

Safety

IEC/EN/UL 62368-1, IEC/EN/UL 60950-22, IS 13252, CAN/CSA C22.2 No. 62368-1, IEC 62471

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)

Wireless

EN 300328, EN 301489-1, EN 301489-17, EN 301893, FCC Part 15 Subpart C, FCC Part 15 Subpart E, RSS-247, TELEC

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 keystore, secure boot

Network security

IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)², IEEE 802.1AE (MACsec PSK/EAP-TLS), HTTPS/HSTS², TLS v1.2/v1.3², 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 impact resistant aluminum enclosure

Weathershield with black anti-glare coating

Color: White NCS S 1002-B

Intrusion alarm switch

Mounting

1/4"-20 tripod screw thread

Camera stand included

Sustainability

PVC free

Power

Power over Ethernet IEEE 802.3at Type 2 Class 4, max. 25.5 W, typical 13.7 W

IR illumination

Optimized IR with power-efficient, long-life 850 nm IR LEDs

Range of reach 60 m (196 ft) or more depending on the scene

Connectors

Shielded RJ45 10BASE-T/100BASE-TX/1000BASE-T PoE 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)

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

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 (ey@cryptsoft.com).

Operating conditions

-40 °C to 60 °C (-40 °F to 140 °F) with PoE
Maximum temperature according to NEMA TS 2 (2.2.7):
74 °C (165 °F)
Humidity 10–100% RH (condensing)

Storage conditions

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

Dimensions

201 x 179 x 494 mm (7.9 x 7.1 x 19.4 in)

Weight

6965 g (15.4 lb)

Included accessories

AXIS T94Q01A Wall Mount, Sunshield
Connector kit, Resistorx® T20 tool, Installation Guide,
Windows® decoder 1-user license

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
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.