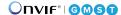# AXIS Q1615 Mk III Network Camera

## 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 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° 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[1], TLS[1], QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP™, 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/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, 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 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
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

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## Cybersecurity

### Edge security
**Software:** Signed OS, brute force delay protection, digest authentication and OAuth 2.0 RFC6749 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/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
Casing: Metal (zinc)
Color lid: Silver RAL 9006
Color chassi: Black - NCS S 9000-N

### Mounting
¼"-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 60068-2-27, 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

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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).*

## 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.