AXIS Q1647-LE Network Camera

5 MP video with 1/2″ sensor and OptimizedIR

With AXIS Q1647-LE Network Camera it's easier than ever to capture everything. High resolution at full frame rate, i-CS lens and 1/2″ sensor ensure outstanding details and sharp images. Even in challenging or low light scenes, Forensic WDR and Lightfinder ensure that details will be unveiled. The robust aluminum housing resists extreme temperatures, and comes with built-in IR LED illumination for surveillance in complete darkness. AXIS Q1647-LE enables proactive surveillance with pre-installed AXIS Guard Suite and orientation aid for quick orientation with multiple monitors. Zipstream optimizes the video stream to maintain high video quality while saving bandwidth and storage.

> **5 MP resolution at 25/30 fps**
> **1/2″ sensor**
> **Forensic WDR and Lightfinder**
> **Electronic image stabilization (EIS)**
> **AXIS Motion Guard, AXIS Fence Guard and AXIS Loitering Guard**

AXIS Q1647-LE Network Camera

Camera

Image sensor
1/2" progressive scan RGB CMOS

Lens
Varifocal, IR corrected, CS-mount
3.9–10.0 mm, F1.5
5.3 MP (16:9):
Horizontal field of view: 92°–44°
Vertical field of view: 50°–24°
4 MP (16:9):
Horizontal field of view: 95°–38°
Vertical field of view: 52°–21°
5 MP (4:3):
Horizontal field of view: 81°–37°
Vertical field of view: 60°–27°
i-CS lens

Day and night
Automatically removable infrared-cut filter

Minimum illumination
5 MP 25/30 fps with WDR and Lightfinder: Color:
0.12 lux at 50 IRE, F1.5; B/W: 0.02 lux at 50 IRE, F1.5
4 MP 50/60 fps: Color: 0.24 lux at 50 IRE, F1.5, B/W;
0.04 lux at 50 IRE, F1.5
0 lux with IR illumination on

Shutter speed
1/100000 to 2 s

Pan/Tilt/Zoom
Digital PTZ, uploadable PTZ driver (Pelco D pre-installed)

System on chip (SoC)

Model
ARTPEC-6

Memory
1 GB RAM, 512 MB Flash

Video

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

Resolution
3072x1728 to 320x180

Frame rate
5 MP with WDR: 25/30 fps with power line frequency
50/60 Hz
4 MP without WDR: 50/60 fps with power line
frequency 50/60 Hz

Video streaming
Multiple, individually configurable streams in H.264 and
Motion JPEG
Axis Zipstream technology in H.264
Controllable frame rate and bandwidth
VBR/ABR/MBR H.264

Image settings
Saturation, contrast, brightness, sharpness, Forensic
WDR – 120 dB, white balance, day/night threshold,
exposure mode, exposure zones, compression,
orientation: auto, 0°, 90°, 180°, 270°, mirroring of
images, dynamic text overlay, image overlay, privacy
masks, defogging, noise reduction, electronic image
stabilization, barrel distortion correction, orientation
aid, fine tuning of behavior at low light
Scene profiles: forensic, vivid, traffic overview, backlit
entrance

Audio

Audio streaming
Two-way, full duplex

Audio encoding
AAC-LC 8/16/32/48 kHz, G.711 PCM 8 kHz, G.726
ADPCM 8 kHz, Opus 8/16/48 kHz
Configurable bit rate

Audio input/output
External balanced/unbalanced microphone or line input,
line output, automatic gain control
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® and AXIS Camera Application Platform; specifications at *axis.com*
AXIS Video Hosting System (AVHS) with One-Click Connection
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*.

Event conditions
Analytics, 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, 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: average bitrate degradation, day-night mode, live stream open, tampering

Event actions
File upload: FTP, SFTP, HTTP, HTTPS, network share and email, send video clip
Notification: email, HTTP, HTTPS and TCP
Overlay text, Send SNMP Trap
Video and audio recording to edge storage
Pre- and post-alarm video buffering
External output activation, day/night vision mode, play audio clip, status LED, WDR mode, defog mode, PTZ control
MQTT publish

Data streaming
Event data

Built-in installation aids
i-CS: Remote zoom and focus
Other lens: Remote back focus
Traffic wizard, pixel counter, levelling assistant, autorotation

Analytics

Applications
Included
AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard
AXIS Video Motion Detection, active tampering alarm, audio detection
Supported
AXIS Perimeter Defender
Support for AXIS Camera Application Platform enabling installation of third-party applications, see *axis.com/acap*

Approvals

EMC
EN 55032 Class A, EN 61000-3-2, EN 61000-3-3, EN 50121-4, IEC 62236-4, EN 55024, EN 61000-6-1, EN 61000-6-2
Australia/New Zealand: RCM AS/NZS CISPR 32 Class A
Canada: ICES-003 Class A
Japan: VCCI Class A
USA: FCC Part 15 Subpart B Class A

Safety
IEC/EN/UL 60950-22, IEC/EN/UL 62368-1, IS 13252, IEC 62471

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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 (eay@cryptsoft.com).*

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 IP66/67, IEC/EN 62262 IK10,
NEMA 250 Type 4X

Network

NIST SP500–267

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

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

IP66-, IP67-, NEMA 4X- and IK10-rated
Metal (Aluminium)
Color front: Black - NCS S 9000-N
Color chassi: White - NCS S 1002-B
Intrusion alarm switch

Sustainability

PVC free

Power

Power over Ethernet (PoE) IEEE 802.3at Type 2 Class 4
Typical 12.3 W, max 25.5 W

Connectors

Shielded RJ45 10BASE-T/100BASE-TX PoE
I/O: 6-pin 2.5 mm terminal block for four configurable
inputs/outputs (12 V DC output, max load 50 mA)
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)

IR illumination

OptimizedIR with power-efficient, long-life 850 nm IR
LEDs
Range of reach 30 m (98 ft) or more depending on the
scene

Storage

Support for microSD/microSDHC/microSDXC card
Support for SD card encryption (AES-XTS-Plain64
256bit)
Support for recording to network-attached storage
(NAS)
For SD card and NAS recommendations see *axis.com*

Operating conditions

Arctic temperature control:
Start-up at -40 °C to 60 °C (-40 °F to 140 °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

178 x 206 x 494 mm (7 x 8.11 x 19.45 in)

Weight

6350 g (13.2 lb)

Included accessories

AXIS T94Q01A Wall Mount, AXIS T92G20 Outdoor
Housing, connector kit, resistorx® T20 tool, installation
guide, Windows® decoder 1-user license

Optional lenses

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

Optional accessories

AXIS T90B Illuminators, Axis network cable couplers,
AXIS T8129 PoE Extender, AXIS T8415 Wireless
Installation Tool, Axis midspans
For more accessories, see *axis.com*

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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).*

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*

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