

AXIS Q1645-LE Network Camera

High-speed video with 1/2" sensor and OptimizedIR

With AXIS Q1645-LE Network Camera it's easier than ever to capture details even in challenging lighting or low light. With a 1/2" sensor and i-CS lens, AXIS Q1645-LE ensures high-resolution images at up to 120 fps and provides superior light sensitivity with Forensic WDR and Lightfinder. The robust aluminum housing resists extreme temperatures, and comes with built-in IR LED illumination for surveillance in complete darkness. AXIS Q1645-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.

- > **2 MP resolution at up to 100/120 fps**
- > **1/2" sensor**
- > **Forensic WDR and Lightfinder**
- > **Electronic image stabilization (EIS)**
- > **AXIS Motion Guard, AXIS Fence Guard and AXIS Loitering Guard**



AXIS Q1645-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

2 MP (16:9):

Horizontal field of view: 92°–42°

Vertical field of view: 50°–23°

i-CS lens

Day and night

Automatically removable infrared-cut filter

Minimum illumination

1080p 25/30 fps with WDR and Lightfinder:

Color: 0.05 lux, at 50 IRE F1.5, B/W: 0.01 lux, at 50 IRE F1.5

1080p 50/60 fps with WDR and Lightfinder:

Color: 0.1 lux, at 50 IRE F1.5, B/W: 0.02 lux, at 50 IRE F1.5

1080p 100/120 fps:

Color: 0.2 lux, at 50 IRE F1.5, B/W: 0.04 lux, at 50 IRE F1.5

1080p 25/30 fps with WDR and Lightfinder:

Color: 0.02 lux, at 50 IRE F0.9, B/W: 0.004 lux, at 50 IRE F0.9

0 lux with IR illumination on

Shutter speed

1/143000 to 1 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

1920x1080 to 320x180

Frame rate

HDTV 1080p (1920x1080) with WDR:

Up to 50/60 fps with power line frequency 50/60 Hz

HDTV 1080p (1920x1080) without WDR:

Up to 100/120 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, HTTPS¹, TLS¹, 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

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).

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/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-, 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

Optimized IR 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, resistor^x T20 tool, installation
guide, Windows[®] decoder 1-user license

Optional lenses

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

Lens i-CS 1/1.8" 3.9–10 mm F1.5

Ricom 2MP Lens DC-iris 8–26 mm F0.9

Tamron Varifocal 5MP Lens 4–13 mm, DC-iris & C-
mount

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).

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](https://www.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](https://www.axis.com/warranty)