

# 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, HTTPS, TLS, 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 <a href="https://axis.com">axis.com</a> 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 <a href="https://onvif.org">onvif.org</a>
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
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Data streaming	Event data
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Built-in installation aids	i-CS: Remote zoom and focus Other lens: Remote back focus Traffic wizard, pixel counter, levelling assistant, autorotation
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Analytics	
Applications	Included AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard AXIS Video Motion Detection, active tampering alarm, audio detection Supported AXIS Digital Autotracking, AXIS Perimeter Defender Support for AXIS Camera Application Platform enabling installation of third-party applications, see <a href="https://axis.com/acap">axis.com/acap</a>

Cybersecurity	
Edge security	Software: Signed firmware, 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), HTTPS/HSTS, TLS v1.2/v1.3, Network Time Security (NTS), X.509 Certificate PKI, IP address filtering
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Documentation	<i>AXIS OS Hardening Guide</i> <i>Axis Vulnerability Management Policy</i> <i>Axis Security Development Model</i> AXIS OS Software Bill of Material (SBOM) To download documents, go to <a href="https://axis.com/support/cybersecurity/resources">axis.com/support/cybersecurity/resources</a> To read more about Axis cybersecurity support, go to <a href="https://axis.com/cybersecurity">axis.com/cybersecurity</a>
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General	
Casing	IP66-, IP67-, NEMA 4X- and IK10-rated Metal (Aluminium) Color front: Black – NCS S 9000-N Color chassis: White – NCS S 1002-B Intrusion alarm switch

Sustainability	PVC free
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Power	Power over Ethernet (PoE) IEEE 802.3at Type 2 Class 4 Typical 12.3 W, max 25.5 W
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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)
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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
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Storage	Support for microSD/microSDHC/microSDXC card Support for SD card encryption (AES-XTS-Plain64 256bit) Support for recording to network-attached storage (NAS)
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	For SD card and NAS recommendations see <a href="http://axis.com">axis.com</a>
<b>Operating conditions</b>	Arctic temperature control: Start-up at -40 °C to 60 °C (-40 °F to 140 °F) Humidity 10–100% RH (condensing)
<b>Storage conditions</b>	-40 °C to 65 °C (-40 °F to 149 °F) Humidity 5–95% RH (non-condensing)
<b>Approvals</b>	<b>EMC</b> 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, FCC Part 15 Subpart B Class A, ICES-003 Class A, VCCI Class A, RCM AS/NZS CISPR 32 Class A <b>Safety</b> IEC/EN/UL 60950-22, IEC/EN/UL 62368-1, IS 13252 <b>Environment</b> 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 <b>Network</b> NIST SP500-267 <b>Other</b> IEC 62471
<b>Dimensions</b>	178 x 206 x 494 mm (7 x 8.11 x 19.45 in)
<b>Weight</b>	6350 g (13.2 lb)

<b>Included accessories</b>	AXIS T94Q01A Wall Mount, AXIS T92G20 Outdoor Housing, connector kit, resistor <sup>®</sup> T20 tool, installation guide, Windows <sup>®</sup> decoder 1-user license
<b>Optional lenses</b>	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 Ricor 2MP Lens DC-iris 8–26 mm F0.9 Tamron Varifocal 5MP Lens 4–13 mm, DC-iris & C-mount
<b>Optional accessories</b>	AXIS T90B Illuminators, Axis network cable couplers, AXIS T8129 PoE Extender, AXIS T8415 Wireless Installation Tool, Axis midspans For more accessories, see <a href="http://axis.com">axis.com</a>
<b>Video management software</b>	AXIS Companion, AXIS Camera Station, video management software from Axis Application Development Partners available at <a href="http://axis.com/vms">axis.com/vms</a>
<b>Languages</b>	English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese
<b>Warranty</b>	5-year warranty, see <a href="http://axis.com/warranty">axis.com/warranty</a>