

AXIS Q1645 Network Camera

High-speed video with 1/2" sensor and i-CS lens

With AXIS Q1645 Network Camera it's easier than ever to capture details even in challenging lighting or low light. The 1/2" sensor and i-CS lens ensure sharp images in high resolution at full frame rate, and with Forensic WDR and Lightfinder, AXIS Q1645 provides superior light sensitivity and excellent image usability. AXIS Q1645 enables proactive surveillance with preinstalled AXIS Motion Guard and AXIS Fence Guard, and orientation aid with compass rose and street names for quick orientation with multiple monitors. Zipstream optimizes the video stream to maintain high video quality while saving bandwidth and storage.

- > **HDTV 1080p/2 MP resolution at up to 100/120 fps**
- > **1/2" sensor**
- > **Forensic WDR and Lightfinder**
- > **Electronic image stabilization (EIS)**
- > **AXIS Motion Guard and AXIS Fence Guard**



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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: 109°–42° Vertical field of view: 58°–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
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° including corridor format, 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, built-in microphone, 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 axis.com One-Click Cloud Connection ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specifications at onvif.org
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, 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
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 Digital Autotracking 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

Approvals	
EMC	EN 55032 Class A, EN 61000-3-2, EN 61000-3-3, 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 Korea: KCC KN32 Class A, KN35 USA: FCC Part 15 Subpart B Class A
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
Cybersecurity	ETSI EN 303 645

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), IEEE 802.1AE (MACsec PSK/EAP-TLS), HTTPS/HSTS, TLS v1.2/v1.3, Network Time Security (NTS), X.509 Certificate PKI, host-based firewall
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 axis.com/support/cybersecurity/resources To read more about Axis cybersecurity support, go to axis.com/cybersecurity

General	
Casing	Metal (zinc) Color lid: Silver – RAL 9006 Color chassis: Black – NCS S 9000-N
Sustainability	PVC free

Power	Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3 Typical 4.5 W, max 9.1 W 8–28 V DC, typical 4.3 W, max 9.5 W	Included accessories	Stand, connector kit, resistox® T20 tool, installation guide, Windows® decoder 1–user license
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)	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 Riccom 2MP Lens DC-iris 8–26 mm F0.9 Tamron Varifocal 5MP Lens 4–13 mm, DC-iris & C-mount
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	Optional accessories	AXIS T90B Illuminators, AXIS T92G Housings, AXIS T93F Housings, Axis network cable couplers, AXIS T8129 PoE Extender, AXIS T8415 Wireless Installation Tool, Axis midspans For more accessories, see axis.com
Operating conditions	–20 °C to 60 °C (–4 °F to 140 °F) Humidity 10–85% RH (non-condensing)	Video management software	AXIS Companion, AXIS Camera Station, video management software from Axis Application Development Partners available at axis.com/vms
Storage conditions	–40 °C to 65 °C (–40 °F to 149 °F) Humidity 5–95% RH (non-condensing)	Languages	English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese
Dimensions	82 x 66 x 210 mm (3.23 x 2.60 x 8.25 in)	Warranty	5-year warranty, see axis.com/warranty
Weight	950 g (2.1 lb)		