

# 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**



# AXIS Q1645 Network Camera

<b>Camera</b>		
<b>Image sensor</b>	1/2" progressive scan RGB CMOS	
<b>Lens</b>	Varifocal, IR corrected, CS-mount 3.9–10.0 mm, F1.5 <b>2 MP (16:9):</b> Horizontal field of view: 109°–42° Vertical field of view: 58°–23° i-CS lens	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
<b>Day and night</b>	Automatically removable infrared-cut filter	
<b>Minimum illumination</b>	<b>1080p 25/30 fps with WDR and Lightfinder:</b> Color: 0.05 lux, at 50 IRE F1.5, B/W: 0.01 lux, at 50 IRE F1.5 <b>1080p 50/60 fps with WDR and Lightfinder:</b> Color: 0.1 lux, at 50 IRE F1.5, B/W: 0.02 lux, at 50 IRE F1.5 <b>1080p 100/120 fps:</b> Color: 0.2 lux, at 50 IRE F1.5, B/W: 0.04 lux, at 50 IRE F1.5 <b>1080p 25/30 fps with WDR and Lightfinder:</b> Color: 0.02 lux, at 50 IRE F0.9, B/W: 0.004 lux, at 50 IRE F0.9	<b>Event actions</b> 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
<b>Shutter speed</b>	1/143000 to 1 s	
<b>Pan/Tilt/Zoom</b>	Digital PTZ, uploadable PTZ driver (Pelco D pre-installed)	
<b>System on chip (SoC)</b>		
<b>Model</b>	ARTPEC-6	
<b>Memory</b>	1 GB RAM, 512 MB Flash	
<b>Video</b>		
<b>Video compression</b>	H.264 (MPEG-4 Part 10/AVC), Main, Baseline and High Profile Motion JPEG	
<b>Resolution</b>	1920x1080 to 320x180	
<b>Frame rate</b>	<b>HDTV 1080p (1920x1080) with WDR:</b> Up to 50/60 fps with power line frequency 50/60 Hz <b>HDTV 1080p (1920x1080) without WDR:</b> Up to 100/120 fps with power line frequency 50/60 Hz	
<b>Video streaming</b>	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	
<b>Image settings</b>	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	
<b>Audio</b>		
<b>Audio streaming</b>	Two-way, full duplex	
<b>Audio encoding</b>	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	
<b>Audio input/output</b>	External balanced/unbalanced microphone or line input, line output, built-in microphone, automatic gain control 24 bit AD/DA-conversion	
<b>Network</b>		
<b>Network protocols</b>	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).	
<b>System integration</b>		
<b>Application Programming Interface</b>	Open API for software integration, including VAPIX® and AXIS Camera Application Platform; specifications at <a href="http://axis.com">axis.com</a> One-Click Cloud Connection ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specifications at <a href="http://onvif.org">onvif.org</a>	
<b>Event conditions</b>	Analytics, external input, edge storage events, virtual inputs through API Audio: audio detection	
<b>Data streaming</b>	Event data	
<b>Built-in installation aids</b>	i-CS: Remote zoom and focus Other lens: Remote back focus Traffic wizard, pixel counter, levelling assistant, autorotation	
<b>Analytics</b>		
<b>Applications</b>	<b>Included</b> AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard AXIS Video Motion Detection, active tampering alarm, audio detection <b>Supported</b> 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 <a href="http://axis.com/acap">axis.com/acap</a>	
<b>Approvals</b>		
<b>EMC</b>	EN 55032 Class A, EN 61000-3-2, EN 61000-3-3, EN 55024, EN 61000-6-1, EN 61000-6-2 <b>Australia/New Zealand:</b> RCM AS/NZS CISPR 32 Class A <b>Canada:</b> ICES-003 Class A <b>Japan:</b> VCCI Class A <b>Korea:</b> KCC KN32 Class A, KN35 <b>USA:</b> FCC Part 15 Subpart B Class A	
<b>Safety</b>	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	
<b>Network</b>	NIST SP500-267	
<b>Cybersecurity</b>		
<b>Edge security</b>	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	
<b>Network security</b>	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	
<b>Documentation</b>	<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="http://axis.com/support/cybersecurity/resources">axis.com/support/cybersecurity/resources</a> To read more about Axis cybersecurity support, go to <a href="http://axis.com/cybersecurity">axis.com/cybersecurity</a>	
<b>General</b>		
<b>Casing</b>	Metal (zinc) Color lid: Silver - RAL 9006 Color chassis: Black - NCS S 9000-N	
<b>Sustainability</b>	PVC free	
<b>Power</b>	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		
<b>Connectors</b>	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)	<b>Included accessories</b>	Stand, connector kit, resistor <sup>®</sup> T20 tool, installation guide, Windows <sup>®</sup> decoder 1-user license
<b>Storage</b>	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 <a href="http://axis.com">axis.com</a>	<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 Ricom 2MP Lens DC-iris 8-26 mm F0.9 Tamron Varifocal 5MP Lens 4-13 mm, DC-iris & C-mount
<b>Operating conditions</b>	-20 °C to 60 °C (-4 °F to 140 °F) Humidity 10–85% RH (non-condensing)	<b>Optional accessories</b>	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 <a href="http://axis.com">axis.com</a>
<b>Storage conditions</b>	-40 °C to 65 °C (-40 °F to 149 °F) Humidity 5–95% RH (non-condensing)	<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>Dimensions</b>	82 x 66 x 210 mm (3.23 x 2.60 x 8.25 in)	<b>Languages</b>	English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese
<b>Weight</b>	950 g (2.1 lb)	<b>Warranty</b>	5-year warranty, see <a href="http://axis.com/warranty">axis.com/warranty</a>