AXIS Q1700-LE License Plate Camera
Dedicated camera for sharp images at high speeds

AXIS Q1700-LE License Plate Camera delivers clear and sharp license plate images from vehicles moving at speeds of up to 130 km/h (81 mph) day and night. Thanks to a built-in license plate capture assistant, the camera is easy to setup and image settings are automatically adjusted to t speed, installation height and vehicle distance in a speci c traf c scene. A robust design ensures reliable operation in extreme weather conditions and in wind forces up to hurricane level. The camera is designed for usage with third-party edge or server-based software to perform license plate recognition and trigger actions.

> **Sharp license plates in HDTV 1080p / 2 MP**

> **OptimizedIR range up to 50 m (164 ft)**

> **8x optical zoom**

> **Horizontal field of view of 16° - 2.3°**

> **Designed for third-party software**

AXIS Q1700-LE License Plate Camera

Camera

Image sensor	1/2.8" progressive scan RGB CMOS
Lens	18–137 mm, F2.9–4.0 Horizontal field of view: 16°–2.3° Vertical field of view: 9.6°–1.3° Installation focus, auto-iris, automatic day/night Thread for 62 mm filters, max filter thickness: 5 mm
Day and night	Automatically removable infrared-cut filter in day mode and infrared-pass filter 720 nm in night mode
Minimum illumination	**Color:** 0.16 lux at 50 IRE F1.4 **B/W:** 0.03 lux at 50 IRE F1.4, 0 lux with IR illumination on
Shutter speed	1/66500 s to 1 s

License Plate Capture

Detection range	**Day:** 20–100 m (66–328 ft) **Night:** 20–50 m (66–164 ft) Night detection range up to 100 m (328 ft) with optional accessory AXIS T90D20 IR-LED Illuminator
IR illumination	OptimizedIR with power-efficient, long-life 850 nm IR LED's with adjustable angle of illumination and intensity. Range of reach 40 m (131 ft) in wide field of view and 50 m (164 ft) in full tele view, or more depending on the scene
Vehicle speed	Up to 130 km/h (81 mph) with optional edge analytics Up to 250 km/h (155 mph) with server based analytics
Coverage	Single lane with optional edge analytics Two lanes with server based analytics
Installation	Mounting height: Up to 10 m (33 ft) Distance from road: Up to 10 m (33 ft) Camera detects tilt and roll angle automatically Built-in licence plate capture assistant optimizes video settings based on mounting height, distance to vehicle, and expected vehicle speed

System on chip (SoC)

Model	ARTPEC-6
Memory	1024 MB RAM, 512 MB Flash

Video

Video compression	H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles Motion JPEG
Resolution	1920x1080 HDTV 1080p to 160x120 **Maximum pixel density with 8x optical zoom:** **25 m (82 ft):** 1912 px/m **50 m (164 ft):** 956 px/m **250 m (820 ft):** 191 px/m
Frame rate	**With WDR:** Up to 25/30 fps (50/60 Hz) in all resolutions **Without WDR:** Up to 50/60 fps (50/60 Hz) in all resolutions
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: Up to 120 dB depending on scene, defogging, white balance, day/night threshold, exposure mode, exposure zones, compression, mirroring of images, electronic image stabilization, barrel distortion correction, text and image overlay, dynamic text and image overlay, privacy masks Rotation: auto, 0°, 180° Scene profiles: license plate, forensic, vivid, traffic overview
Pan/Tilt/Zoom	8x optical zoom, preset positions

Audio

Audio streaming	Audio in, simplex Two-way audio via edge-to-edge technology
Audio encoding	AAC-LC 8/16/32/48 kHz, G.711 PCM 8 kHz, G.726 ADPCM 8 kHz, Opus 8/16/48 kHz, LPCM Configurable bit rate
Audio input/output	Automatic gain control External microphone input, line input, digital input with ring power, balanced microphone, balanced input Network speaker pairing

Network

Security	Password protection, IP address filtering, HTTPS[a] encryption, IEEE 802.1x (EAP-TLS)[a] network access control, digest authentication, user access log, centralized certificate management, signed firmware, brute force delay protection
Network protocols	IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTP/2, HTTPS[a], TLS[a], QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, NTS, RTSP, RTP, 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, specification at *onvif.org*
Event conditions	Analytics, edge storage events MQTT subscribe Supervised external input, virtual inputs through API, shock detection, video motion detection, audio detection, active tampering
Event actions	Pre- and post-alarm video buffering File upload: FTP, SFTP, HTTP, HTTPS, network share and email MQTT publish Notification: email, HTTP, HTTPS, TCP and SNMP trap
Data streaming	Event data
Built-in installation aids	License plate capture assistant, remote zoom, pixel counter, leveling assistant, autorotation

Analytics

Applications	**Included** AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard Gatekeeper Support for AXIS Camera Application Platform enabling installation of third-party applications, see *axis.com/acap*

General

Casing	IP66- and NEMA 4X-rated, IK10 impact-resistant aluminum enclosure with integrated dehumidifying membrane, IK08 impact-resistant glass front window, weathershield with black anti-glare coating Wind survivability 60 m/s (134 mph) Color: Dark Gray NCS S 5502-B (Weathershield: Black)
Sustainability	PVC free, 5% recycled plastic
Power	Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3 Typical 7.7 W, max 12.95 W 20–28 V DC, typical 7.8 W, max 13.5 W 20–24 V AC, typical 12.4 V A, max 20 V A
Connectors	Shielded RJ45 10BASE-T/100BASE-TX PoE IDC punchdown connector DC Power connector Terminal block for two configurable supervised inputs / digital outputs (12 V DC output, max. load 50 mA) 3.5 mm mic/line in
IR illumination	OptimizedIR with power-efficient, long-life 850 nm IR LED's with adjustable angle of illumination and intensity. Range of reach 40 m (131 ft) in wide field of view and 50 m (164 ft) in full tele view, or more depending on the scene
Storage	Support for microSD/microSDHC/microSDXC card Support for SD card encryption (AES-XTS-Plain64 256bit) Recording to network-attached storage (NAS) For SD card and NAS recommendations see *axis.com*
Operating conditions	-40 °C to 60 °C (-40 °F to 140 °F) Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F) Humidity 10-100% RH (condensing)
Storage conditions	-40 °C to 65 °C (-40 °F to 149 °F) Humidity 5-95% RH (non-condensing)
Approvals	**EMC** EN 55032 Class A, 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, KCC KN32 Class A, KN35, EAC **Safety** IEC/EN/UL 62368-1, IEC/EN/UL 60950-22, EN/IEC 62471, IS 13252 **Environment** EN 50581, 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, IEC/EN 62262 IK10 body, IK08 glass, NEMA 250 Type 4X, NEMA TS 2 (2.2.7-2.2.9) **Network** NIST SP500–267
Dimensions	Length: 439 mm (17.3 in) ø 147 mm (5.8 in)
Weight	2.4 kg (5.3 lb)
Included accessories	Installation Guide, Windows® decoder 1-user license, connector kit, Resistorx® L-key

	RJ45 patch cable
Optional accessories	AXIS T90D20 IR-LED Illuminator - for night time capture range at up to 100 m (328 ft) AXIS T8604 Media Converter Switch AXIS T91A47 Pole Mount, AXIS T94P01B Corner Bracket For more accessories, see *axis.com*
Video management software	AXIS Companion, AXIS Camera Station, video management software from Axis' Application Development Partners available at *axis.com/vms*
Languages	English, German, French, Spanish, Italian, Russian, Simpli ed Chinese, Japanese, Korean, Portuguese, Traditional Chinese
Warranty	5-year warranty, see *axis.com/warranty*

a. *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).*

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