

# 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 fit speed, installation height and vehicle distance in a specific traffic 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                |   | Network                           |  |
|-----------------------|---|-----------------------------------|--|
| Image sensor          | 1/2.8" progressive scan RGB CMOS  | Network protocols                 | IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTP/2, HTTPS, TLS, 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) |
| Lens                  | 18–137 mm, F2.9–4.0<br>Horizontal field of view: 16°–2.3°<br>Vertical field of view: 9.6°–1.3°<br>Installation focus, auto-iris, automatic day/night<br>Thread for 62 mm filters, max filter thickness: 5 mm  | <b>System integration</b>         |  |
| Day and night         | Automatically removable infrared-cut filter in day mode and infrared-pass filter 720 nm in night mode   | Application Programming Interface | Open API for software integration, including VAPIX® and AXIS Camera Application Platform; specifications at <a href="#">axis.com</a><br>One-click cloud connection<br>ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specification at <a href="#">onvif.org</a>   |
| Minimum illumination  | Color: 0.16 lux at 50 IRE F1.4<br>B/W: 0.03 lux at 50 IRE F1.4, 0 lux with IR illumination on   | Event conditions                  | Analytics, edge storage events<br>MQTT subscribe<br>Supervised external input, virtual inputs through API, shock detection, video motion detection, audio detection, active tampering  |
| Shutter speed         | 1/66500 s to 1 s  | Event actions                     | Pre- and post-alarm video buffering<br>File upload: FTP, SFTP, HTTP, HTTPS, network share and email<br>MQTT publish<br>Notification: email, HTTP, HTTPS, TCP and SNMP trap   |
| License Plate Capture |   | Data streaming                    | Event data   |
| Detection range       | Day: 20–100 m (66–328 ft)<br>Night: 20–50 m (66–164 ft)<br>Night detection range up to 100 m (328 ft) with optional accessory AXIS T90D20 IR-LED Illuminator  | Built-in installation aids        | License plate capture assistant, remote zoom, pixel counter, leveling assistant, autorotation  |
| 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   | Analytics                         |  |
| Vehicle speed         | Up to 130 km/h (81 mph) with optional edge analytics<br>Up to 250 km/h (155 mph) with server based analytics  | Applications                      | Included<br>AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard<br>Gatekeeper<br>Supported<br>AXIS License Plate Verifier<br>Support for AXIS Camera Application Platform enabling installation of third-party applications, see <a href="#">axis.com/acap</a>   |
| Coverage              | Single lane with optional edge analytics<br>Two lanes with server based analytics   | Cybersecurity                     |  |
| Installation          | Mounting height: Up to 10 m (33 ft)<br>Distance from road: Up to 10 m (33 ft)<br>Camera detects tilt and roll angle automatically<br>Built-in licence plate capture assistant optimizes video settings based on mounting height, distance to vehicle, and expected vehicle speed  | 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   |
| System on chip (SoC)  |   | Network security                  | IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2),<br>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   |
| Model                 | ARTPEC-6  | Documentation                     | <i>AXIS OS Hardening Guide</i><br><i>Axis Vulnerability Management Policy</i><br><i>Axis Security Development Model</i><br>AXIS OS Software Bill of Material (SBOM)<br>To download documents, go to <a href="#">axis.com/support/cybersecurity/resources</a><br>To read more about Axis cybersecurity support, go to <a href="#">axis.com/cybersecurity</a>              |
| Memory                | 1024 MB RAM, 512 MB Flash   | General                           |  |
| Video                 |   | 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<br>Wind survivability 60 m/s (134 mph)<br>Color: Dark Gray NCS S 5502-B (Weathershield: Black)   |
| Video compression     | H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles<br>Motion JPEG  | Sustainability                    | PVC free, 5% recycled plastic  |
| Resolution            | 1920x1080 HDTV 1080p to 160x120<br>Maximum pixel density with 8x optical zoom:<br>25 m (82 ft): 1912 px/m<br>50 m (164 ft): 956 px/m<br>250 m (820 ft): 191 px/m  | Power                             | Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3<br>Typical 7.7 W, max 12.95 W<br>20–28 V DC, typical 7.8 W, max 13.5 W<br>20–24 V AC, typical 12.4 V A, max 20 V A   |
| Frame rate            | With WDR: Up to 25/30 fps (50/60 Hz) in all resolutions<br>Without WDR: Up to 50/60 fps (50/60 Hz) in all resolutions   | Connectors                        | Shielded RJ45 10BASE-T/100BASE-TX PoE<br>IDC punchdown connector<br>DC Power connector<br>Terminal block for two configurable supervised inputs / digital outputs (12 V DC output, max. load 50 mA)<br>3.5 mm mic/line in  |
| Video streaming       | Multiple, individually configurable streams in H.264 and Motion JPEG<br>Axis Zipstream technology in H.264<br>Controllable frame rate and bandwidth<br>VBR/ABR/MBR H.264  | IR illumination                   | OptimizedIR with power-efficient, long-life 850 nm IR LED's with adjustable angle of illumination and intensity. Range of reach  |
| 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<br>Rotation: auto, 0°, 180°<br>Scene profiles: license plate, forensic, vivid, traffic overview |                                   |  |
| Pan/Tilt/Zoom         | 8x optical zoom, preset positions   |                                   |  |
| Audio                 |   |                                   |  |
| Audio streaming       | Audio in, simplex<br>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<br>Configurable bit rate  |                                   |  |
| Audio input/output    | Automatic gain control<br>External microphone input, line input, digital input with ring power, balanced microphone, balanced input<br>Network speaker pairing  |                                   |  |

|                             |   |
|-----------------------------|---|
|                             | 40 m (131 ft) in wide field of view and 50 m (164 ft) in full tele view, or more depending on the scene   |
| <b>Storage</b>              | Support for microSD/microSDHC/microSDXC card<br>Support for SD card encryption (AES-XTS-Plain64 256bit)<br>Recording to network-attached storage (NAS)<br>For SD card and NAS recommendations see <a href="https://www.axis.com">axis.com</a>   |
| <b>Operating conditions</b> | -40 °C to 60 °C (-40 °F to 140 °F)<br>Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F)<br>Humidity 10-100% RH (condensing)  |
| <b>Storage conditions</b>   | -40 °C to 65 °C (-40 °F to 149 °F)<br>Humidity 5-95% RH (non-condensing)  |
| <b>Approvals</b>            | <b>EMC</b><br>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<br><b>Safety</b><br>IEC/EN/UL 62368-1, IEC/EN/UL 60950-22, EN/IEC 62471, IS 13252<br><b>Environment</b><br>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) |

|                                  |  |
|----------------------------------|--|
|                                  | <b>Network</b><br>NIST SP500-267   |
| <b>Dimensions</b>                | Length: 439 mm (17.3 in)<br>ø 147 mm (5.8 in)  |
| <b>Weight</b>                    | 2.4 kg (5.3 lb)  |
| <b>Included accessories</b>      | Installation Guide, Windows® decoder 1-user license, connector kit, Resistox® L-key<br>RJ45 patch cable  |
| <b>Optional accessories</b>      | AXIS T90D20 IR-LED Illuminator – for night time capture range at up to 100 m (328 ft)<br>AXIS T8604 Media Converter Switch<br>AXIS T91A47 Pole Mount, AXIS T94P01B Corner Bracket<br>For more accessories, see <a href="https://www.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="https://www.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="https://www.axis.com/warranty">axis.com/warranty</a>   |