

AXIS Q1656-LE Box Camera

Outstanding performance in 4 MP

With 4 MP resolution at up to 60 fps, a 1/1.8" sensor, and Lightfinder 2.0, AXIS Q1656-LE delivers exceptional video quality even in poor light conditions. Plus, a built-in wiper ensures great images in all weather conditions. Based on the latest Axis system-on-chip (SoC), it offers support for advanced features and powerful applications based on deep learning on the edge. And, AXIS Object Analytics offers highly nuanced object classification. This outdoor-ready camera includes premium Q-line functionality and support for PoE and redundant DC power. Furthermore, enhanced security functionality prevents unauthorized access and safeguards your system.

- > [Exceptional images with 1/1.8" sensor](#)
- > [Support for analytics with deep learning](#)
- > [Enhanced security features](#)
- > [Premium Axis Q-line camera functionality](#)
- > [Built-in wiper for snow and rain](#)



AXIS Q1656-LE Box Camera

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| Camera | |
| Image sensor | 1/1.8" progressive scan RGB CMOS |
| Lens | Varifocal, 3.9–10 mm, F1.5 Horizontal field of view: 113°–47° Vertical field of view: 60°–27° Autofocus, i-CS lens, IR corrected, remote zoom and focus, P-Iris control Minimum focus distance: 0.5 m (1.6 ft) |
| Day and night | Automatically removable infrared-cut filter |
| Minimum illumination | 4 MP 25/30 fps with Forensic WDR and Lightfinder 2.0 Color: 0.05 lux at 50 IRE, F1.5 B/W: 0.01 lux at 50 IRE, F1.5 4 MP 50/60 fps with Lightfinder 2.0 Color: 0.1 lux at 50 IRE, F1.5 B/W: 0.02 lux at 50 IRE, F1.5 4 MP 25/30 fps with Forensic WDR and Lightfinder 2.0 With optional F0.9 lens 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 | 1/47500 s to 1 s |
| System on chip (SoC) | |
| Model | ARTPEC-8 |
| Memory | 2048 MB RAM, 8194 MB Flash |
| Compute capabilities | Deep learning processing unit (DLPU) |
| Video | |
| Video compression | H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles H.265 (MPEG-H Part 2/HEVC) Main Profile Motion JPEG |
| Resolution | 16:9 2688x1512 Quad HD to 160x90 4:3 2016x1512 to 160x120 |
| Frame rate | No WDR: Up to 60/50 fps (60/50 Hz) in all resolutions WDR: Up to 30/25 fps (60/50 Hz) in all resolutions |
| Video streaming | Multiple, individually configurable streams in H.264, H.265 and Motion JPEG Axis Zipstream technology in H.264 and H.265 Controllable frame rate and bandwidth VBR/ABR/MBR H.264/H.265 Low latency mode Video streaming indicator |
| Multi-view streaming | Up to 8 individually cropped out view areas |
| Image settings | Saturation, contrast, brightness, Forensic WDR: Up to 120 dB depending on scene, white balance, day/night threshold, tone mapping, exposure mode, exposure zones, defogging, barrel distortion correction, electronic image stabilization, compression, rotation: 0°, 90°, 180°, 270° including Corridor Format, mirroring, dynamic text and image overlay, polygon privacy mask Scene profiles: forensic, vivid, traffic overview |
| Pan/Tilt/Zoom | Digital PTZ, preset positions Uploadable PTZ driver (Pelco D pre-installed) |
| Audio | |
| Audio streaming | Two-way, full duplex Noise reduction |
| Audio encoding | 24bit LPCM, 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 microphone input or line input, line output, ring power, digital audio input, automatic gain control |
| Network | |
| Network protocols | IPv4, IPv6 USGv6, HTTP, HTTPS, HTTP/2, TLS, QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, Bonjour, UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, NTS, RTSP, RTP, SRTP/RTSPS, TCP, UDP, IGMPv1/v2/v3, RTCP, ICMP, DHCPv4/v6, ARP, SSH, LLDP, MQTT v3.1.1, Secure syslog (RFC 3164/5424, UDP/TCP/TLS) |
| 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 |
| Onscreen controls | Electronic image stabilization Day/night shift Defogging Wide dynamic range Video streaming indicator IR illumination Timed wiper Wiper Heater |
| Event conditions | Application Audio: audio detection, audio clip playing Device status: above/below/within operating temperature, casing open, IP address blocked, IP address removed, live stream active, network lost, new IP address, ring power overcurrent protection, system ready Digital audio: digital signal contains Axis metadata, digital signal has invalid sample rate, digital signal missing, digital signal okay Edge storage: recording ongoing, storage disruption, storage health issues detected I/O: digital input, manual trigger, virtual input MQTT: stateless PTZ: PTZ malfunctioning, PTZ movement, PTZ preset position reached, PTZ ready Scheduled and recurring: schedule Video: average bitrate degradation, day-night mode, tampering |
| Event actions | Overlay text, external output activation, play audio clip, zoom preset I/O: toggle I/O once, toggle I/O while the rule is active Illumination: use lights, use lights while the rule is active MQTT: publish Notification: HTTP, HTTPS, TCP, and email Pre- and post-alarm video or image buffering for recording or upload PTZ: PTZ preset, start/stop guard tour Record video: SD card and network share SNMP traps: send, send while the rule is active Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share, and email |
| Built-in installation aids | Remote zoom and focus, remote back focus, leveling assistant, pixel counter |
| Analytics | |
| Applications | Included AXIS Object Analytics, AXIS Scene Metadata, AXIS Image Health Analytics, AXIS Live Privacy Shield ^a AXIS Video Motion Detection Supported AXIS Perimeter Defender, AXIS License Plate Verifier Support for AXIS Camera Application Platform enabling installation of third-party applications, see axis.com/acap |
| AXIS Object Analytics | Object classes: humans, vehicles (types: cars, buses, trucks, bikes, other) Scenarios: line crossing, object in area, time in area, crossline counting, occupancy in area Up to 10 scenarios Other features: triggered objects visualized with trajectories, color-coded bounding boxes and tables Polygon include/exclude areas Perspective configuration ONVIF Motion Alarm event |
| AXIS Image Health Analytics | Detection settings: Tampering: blocked image, redirected image Image degradation: blurred image, underexposed image Other features: sensitivity, validation period |
| AXIS Scene Metadata | Object classes: humans, faces, vehicles (types: cars, buses, trucks, bikes), license plates |

Object attributes: vehicle color, upper/lower clothing color, confidence, position

| Approvals | |
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| EMC | EN 55032 Class A, EN 55035, EN 61000-3-2, EN 61000-3-3, EN 61000-6-1, EN 61000-6-2, EN 50121-4 Australia/New Zealand: CISPR 24, CISPR 35, RCM AS/NZS CISPR 32 Class A Canada: ICES-3(A)/NMB-3(A) Japan: VCCI Class A Korea: KS C 9832 Class A, KS C 9815, KS C 9835, KS C 9547 USA: FCC Part 15 Subpart B Class A Railway: IEC 62236-4 |
| Safety | IEC/EN/UL 62368-1, IEC/EN/UL 60950-22, IEC 62471, 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, IEC/EN 60529 IP66/IP67, IEC/EN 62262 IK10, NEMA 250 Type 4X, NEMA TS 2 (2.2.7-2.2.9), ISO 21207 (Method B) |
| Network | NIST SP500-267 |
| Cybersecurity | ETSI EN 303 645, FIPS 140 |
| Cybersecurity | |
| Edge security | Software: Signed OS, brute force delay protection, digest authentication and OAuth 2.0 RFC6749 OpenID Authorization Code Flow for centralized ADFS account management, password protection, AES-XTS-Plain64 256bit SD card encryption Hardware: Axis Edge Vault cybersecurity platform TPM 2.0 (CC EAL4+, FIPS 140-2 Level 2), secure element (CC EAL 6+), system-on-chip security (TEE), Axis device ID, secure keystore, signed video, secure boot, encrypted filesystem (AES-XTS-Plain64 256bit) |
| Network security | IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2), IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR, 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 | IP66-, IP67-, and NEMA 4X-rated, IK10 impact-resistant aluminum enclosure with integrated dehumidifying membrane IK08 impact-resistant glass front window with wiper weathershield with black anti-glare coating Color: white NCS S 1002-B For repainting instructions, go to the product's support page. For information about the impact on warranty, go to axis.com/warranty-implication-when-repainting . |
| Sustainability | PVC free, BFR/CFR free, 2% recycled plastics, 7% bio-based plastics |

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| Power | Power over Ethernet (PoE) IEEE 802.3at Type 2 Class 4 Typical 11.8 W, max 25.5 W 10–28 VDC, typical 11.2 W, max 25.5 W Power redundancy |
| Connectors | RJ45 10BASE-T/100BASE-TX/1000BASE-T PoE Terminal block for two supervised and two unsupervised configurable inputs / digital outputs (12 VDC output, max load 50 mA) RS485/RS422, 2 pcs, 2 pos, full duplex, terminal block DC input, terminal block, 3.5 mm mic/line in, 3.5 mm line out i-CS connector (compatible with P-Iris and DC-iris) |
| IR illumination | Optimized IR with power-efficient, long-life 850 nm IR LEDs Range of reach 50 m (164 ft) or more depending on the scene |
| Illumination LED | Power-efficient, long-life white LED Range of reach 25 m (82 ft) 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) Arctic Temperature Control: Start-up at -40 °C (-40 °F) Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F) Humidity 10–100% RH (condensing) Wind load (sustained): 60 m/s (134 mph) |
| Storage conditions | -40 °C to 65 °C (-40 °F to 149 °F) Humidity 5–95% RH (non-condensing) |
| Dimensions | 404 x 159 x 182 mm (16 x 6.3 x 7.2 in) Effective Projected Area (EPA): 0.06 m ² (0.20 ft ²) |
| Weight | 4.4 kg (9.7 lb) |
| Included accessories | AXIS T94Q01A Wall Mount, sunshield, connector kit, resistorx® T20 tool, installation guide, Windows® decoder 1-user license |
| Optional accessories | AXIS T8415 Wireless Installation Tool AXIS Surveillance Cards For more accessories, see axis.com |
| Optional lenses | Lens CS 4-10 mm F0.9 P-Iris Lens i-CS 9-50 mm F1.5 8 MP Lens CS 12-50 mm F1.4 P-Iris 8 MP |
| Video management software | AXIS Camera Station and video management software from Axis Application Development Partners available at axis.com/vms |
| Languages | English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Polish, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese |
| Warranty | 5-year warranty, see axis.com/warranty |

a. Available for download