AXIS Q1656 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 delivers exceptional video quality even in poor light 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 high-performance box camera includes premium Q-line functionality and support for PoE and redundant DC power. Furthermore, built-in cybersecurity features, such as Axis Edge Vault, signed firmware and secure boot, and FIPS-certified TPM, prevent unauthorized access and safeguard your system.

> **Exceptional images with 1/1.8" sensor**

> **Support for analytics with deep learning**

> **Built-in cybersecurity features**

> **Premium Axis Q-line camera functionality**

> **Remote zoom and focus**

AXIS Q1656 Box Camera

Camera

Image sensor	1/1.8" progressive scan RGB CMOS
Lens	Varifocal, 3.9–10 mm, F1.5 Horizontal field of view: 120°–47° Vertical field of view: 63°–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
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 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
Pan/Tilt/Zoom	Digital PTZ, 2.5x optical zoom, 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, built-in microphone (can be disabled), ring power, digital audio input, automatic gain control

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, brute force delay protection, signed firmware, secure boot, signed video, Axis Edge Vault, Axis device ID, secure keystore (CC EAL4 certified), TPM (FIPS 140-2 certified)
Supported protocols	IPv4, IPv6 USGv6, HTTP, HTTPS[a], HTTP/2, TLS[a], QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, Bonjour, UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, SRTP, TCP, UDP, IGMPv1/v2/v3, RTCP, ICMP, DHCPv4/v6, ARP, SOCKS, SSH, LLDP, MQTT v3.1.1, Syslog

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
Event conditions	Analytics, external input, supervised 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, shock detected, storage failure, system ready, within operating temperature Edge storage: recording ongoing, storage disruption I/O: digital input, manual trigger, virtual input PTZ: PTZ malfunctioning, PTZ movement, PTZ preset position reached, PTZ ready Scheduled and recurring: scheduled event Video: live stream open
Event actions	Record video: SD card and network share Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email Pre- and post-alarm video or image buffering for recording or upload Notification: email, HTTP, HTTPS, TCP and SNMP trap PTZ: PTZ preset, start/stop guard tour Overlay text, external output activation, play audio clip, zoom preset
Data streaming	Event data
Built-in installation aids	Remote zoom and focus, remote back focus, leveling assistant, pixel counter

Analytics

AXIS Object Analytics	**Object classes**: humans, vehicles (types: cars, buses, trucks, bikes) **Trigger conditions**: line crossing, object in area, time in area[BETA] Up to 10 scenarios Metadata visualized with trajectories and color-coded bounding boxes Polygon include/exclude areas Perspective configuration ONVIF Motion Alarm event
Applications	**Included** AXIS Object Analytics AXIS Video Motion Detection **Supported** Support for AXIS Camera Application Platform enabling installation of third-party applications, see *axis.com/acap*

General

Casing	Aluminum casing Color: black NCS S 9000-N
Mounting	¼"-20 UNC tripod screw thread
Sustainability	
Power	Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3 Typical 5.1 W, max 8.2 W 10–28 V DC, typical 4.6 W, max 7.7 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 V DC 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)

	AXIS T92G20 connector
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	-20 °C to 60 °C (-4 °F to 140 °F) Humidity 10–85% RH (non-condensing)
Storage conditions	-40 °C to 65 °C (-40 °F to 149 °F) Humidity 5–95% RH (non-condensing)
Approvals	**EMC** CISPR 24, CISPR 35, EN 55032 Class A, EN 55035, EN 61000-3-2, EN 61000-3-3, EN 61000-6-1, EN 61000-6-2, FCC Part 15 Subpart B Class A, ICES-3(B)/NMB-3(B), KS C 9832 Class A, KS C 9815, KS C 9835, KS C 9547, RCM AS/NZS CISPR 32 Class A, VCCI Class A **Safety** IEC/EN/UL 62368-1 **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
Dimensions	214 x 80 x 68 mm (8.4 x 3.2 x 2.7 in)
Weight	790 g (1.7 lb)

Included accessories	Installation guide, Windows® decoder 1-user license, stand, drill hole template, connector kit, RESISTORX® L-key
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
Supporting software	AXIS Radar Autotracking for PTZ (Slew to Cue) For supported cameras, see *axis.com/products/axis-radar-autotracking*
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, Simplified Chinese, Japanese, Korean, Portuguese, Polish, 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).*

Environmental responsibility:

axis.com/environmental-responsibility