

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](#)



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Camera		System integration	
Image sensor	1/1.8" progressive scan RGB CMOS	Application Programming Interface	Open API for software integration, including VAPIX®, metadata, and AXIS Camera Application Platform (ACAP); specifications at axis.com/developer-community . ACAP includes Native SDK and Computer Vision SDK. One-click cloud connection ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specification at onvif.org
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)	Onscreen controls	Electronic image stabilization Day/night shift Defogging Wide dynamic range Video streaming indicator
Day and night	Automatically removable infrared-cut filter	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 Video: tampering, average bitrate degradation, day-night mode 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
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	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 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
Shutter speed	1/47500 s to 1 s	Built-in installation aids	Remote zoom and focus, remote back focus, leveling assistant, pixel counter
System on chip (SoC)		Analytics	
Model	ARTPEC-8	AXIS Object Analytics	Object classes: humans, vehicles (types: cars, buses, trucks, bikes) Scenarios: line crossing, object in area, crossline counting, occupancy in area, time in area Up to 10 scenarios Metadata visualized with trajectories, color-coded bounding boxes and tables Polygon include/exclude areas Perspective configuration ONVIF Motion Alarm event
Memory	2048 MB RAM, 8194 MB Flash	Metadata	Object data: Classes: humans, faces, vehicles (types: cars, buses, trucks, bikes), license plates Attributes: Vehicle color, upper/lower clothing color, confidence, position Event data: Producer reference, scenarios, trigger conditions
Compute capabilities	Deep learning processing unit (DLPU)	Applications	Included AXIS Live Privacy Shield AXIS Object Analytics AXIS Video Motion Detection Supported Support for AXIS Camera Application Platform enabling installation of third-party applications, see axis.com/acap
Video		Approvals	
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	EMC	EN 55032 Class A, EN 55035, EN 61000-3-2, EN 61000-3-3, EN 61000-6-1, EN 61000-6-2 Australia/New Zealand: CISPR 24, CISPR 35, RCM AS/NZS CISPR 32 Class A Canada: ICES-3(B)/NMB-3(B) 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
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		
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, built-in microphone (can be disabled), 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)		

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
Cybersecurity	ETSI EN 303 645
Cybersecurity	
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, 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	Aluminum casing Color: black NCS S 9000-N
Mounting	¼"-20 UNC tripod screw thread
Sustainability	PVC free, BFR/CFR free, 0% recycled plastics, 4% bio-based plastics
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, Security lock slot
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)
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
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