



AXIS Q1656-BLE Box Camera

Outdoor barebone model in 4 MP with IR

With 4 MP resolution at up to 60 fps, a 1/1.8" sensor, and Lightfinder 2.0, AXIS Q1656-BLE 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 applications based on deep learning on the edge. And AXIS Object Analytics provides highly nuanced object classification. With built-in cybersecurity features, it prevents unauthorized access and safeguards your system. This outdoor-ready barebone unit comes without lens and mounting for maximum flexibility. Furthermore, it includes power-efficient IR and white LED illumination.

- > **Exceptional images with 1/1.8" sensor**
- > **Support for analytics with deep learning**
- > **Built-in cybersecurity features**
- > **Ready to customize for specific needs**
- > **Built-in wiper for snow and rain**



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Camera		
Image sensor	1/1.8" progressive scan RGB CMOS	Timed wiper Wiper Heater
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 Lens not included 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	
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, 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	
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, casing open 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	
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 back focus, leveling assistant, pixel counter i-CS lens: Remote zoom and focus	
Analytics		
AXIS Object Analytics	Object classes: humans, vehicles (types: cars, buses, trucks, bikes) Scenarios: line crossing, object in area, crossline counting, occupancy in area Up to 10 scenarios Metadata visualized with color-coded bounding boxes Polygon include/exclude areas Perspective configuration ONVIF Motion Alarm event	
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	
Approvals		
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	
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	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
Power	Power over Ethernet (PoE) IEEE 802.3at Type 2 Class 4 Typical 11.8 W, max 12.95 W 10-28 V DC, typical 11.2 W, max 25.2 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)

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)
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)
Weight	4.1 kg (9.0 lb)
Included accessories	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 Lens i-CS 1/1.8" 3.9-10 mm F1.5
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