

AXIS Q1951-E Thermal Camera

Optimal image contrast for video analytics

AXIS Q1951-E delivers a high-quality thermal video stream for reliable detection 24/7. Ideal for perimeter security, it includes AXIS Motion Guard, AXIS Fence Guard, and AXIS Loitering Guard for proactive surveillance. With a powerful analytics platform, it's easy to add third-party analytics. Built-in cybersecurity features prevent unauthorized access and safeguard your system. For instance, Axis Edge Vault protects your Axis device ID and simplifies authorization of Axis products on your network. AXIS Q1951-E also includes a Trusted Platform Module (TPM) that is FIPS 140-2 level 2 certified. Furthermore, this halogen-free, compact camera is robust and suitable even for harsh conditions.

- > [Reliable detection 24/7](#)
- > [Built-in cybersecurity features](#)
- > [Compact, robust, halogen-free design](#)
- > [Support for AI-based analytics](#)
- > [Electronic image stabilization \(EIS\)](#)



AXIS Q1951-E Thermal Camera

Models	AXIS Q1951-E 7 mm/13 mm/19 mm/35 mm	
Camera		
Image sensor	Uncooled microbolometer 384x288 pixels, pixel size: 17 µm. Spectral range: 8-14 µm	
Lens	Athermalized 7 mm Horizontal field of view: 55°, F1.18 Near focus distance: 1.3 m (4.3 ft) 13 mm Horizontal field of view: 28°, F1.0 Near focus distance: 4 m (13 ft) 19 mm Horizontal field of view: 19.4°, F1.23 Near focus distance: 8.5 m (28 ft) 35 mm Horizontal field of view: 10.5°, F1.14 Near focus distance: 33 m (108 ft)	
Sensitivity	NETD 40 mK @25C, F1.0	
System on chip (SoC)		
Model	ARTPEC-7	
Memory	1024 MB RAM, 512 MB Flash	
Video		
Video compression	H.264 (MPEG-4 Part 10/AVC) Baseline, Main, and High Profile H.265 (MPEG-H Part 2/HEVC) Main Profile Motion JPEG	
Resolution	Sensor is 384x288. Image can be scaled up to 768x576.	
Frame rate	Up to 8.3 fps and 30 fps	
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	
Image settings	Contrast, brightness, sharpness, exposure zones, compression, rotation: auto, 0°, 90°, 180°, 270° including Corridor Format, mirroring, dynamic text and image overlay, polygon privacy mask, electronic image stabilization	
Audio		
Audio streaming	Audio in, simplex, two-way audio via edge-to-edge technology	
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, digital audio input, network speaker pairing	
Network		
Security	IP address filtering, HTTPS ^a encryption, IEEE 802.1x (EAP-TLS) ^a network access control, user access log, centralized certificate management, signed video, Axis Edge Vault, Axis device ID, secure keystore (CC EAL4 certified), TPM (FIPS 140-2 certified)	
Network protocols	IPv4, IPv6, USGv6, ICMPv4/ICMPv6, 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/DNSv6, DDNS, NTP, NTS, RTSP, RTP, SRTP/RTSPS, TCP, UDP, IGMPv1/v2/v3, RTCP, DHCPv4/v6, SSH, LLDP, CDP, MQTT v3.1.1, Secure syslog (RFC 3164/5424, UDP/TCP/TLS), Link-Local address (ZeroConf)	
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	Heater, electronic image stabilization	
Event conditions	Analytics, operating temperature, supervised external input, edge storage events, digital audio, virtual inputs through API	
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 Overlay text, play audio clip, I/O, MQTT	
Data streaming	Event data	
Built-in installation aids	Pixel counter	
Analytics		
Applications	Included AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard AXIS Video Motion Detection, active tampering alarm, audio detection Supported AXIS Perimeter Defender with AI-based functionality Support for AXIS Camera Application Platform enabling installation of third-party applications, see axis.com/acap	
Cybersecurity		
Edge security	Software: Signed firmware, brute force delay protection, digest authentication, password protection, AES-XTS-Plain64 256bit SD card encryption Hardware: Secure boot, Axis Edge Vault with Axis device ID, signed video, secure keystore (CC EAL4+, FIPS 140-2 level 2 certified hardware protection of cryptographic operations and keys)	
Network security	IEEE 802.1X (EAP-TLS) ^a , IEEE 802.1AR, HTTPS/HSTS ^a , TLS v1.2/v1.3 ^a , Network Time Security (NTS), X.509 Certificate PKI, IP address filtering	
Documentation	AXIS OS Hardening Guide Axis Vulnerability Management Policy Axis Security Development Model 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-, NEMA 4X-, and IK10-rated ^d casing Polycarbonate blend and aluminum Color: white NCS S 1002-B	
Sustainability	PVC free, BFR/CFR free	
Power	Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3 Typical 4.96 W, max 12.95 W 12–28 V DC, typical 4.92 W, max 12.95 W	
Connectors	Shielded RJ45 10BASE-T/100BASE-TX/1000BASE-T 3.5 mm mic/line in Terminal block for 1 supervised alarm input and 1 output (12 V DC output, max. load 25 mA) DC input, terminal block	
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) Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F) Humidity 10–100% RH (condensing) De-icing capability, compliant to MIL-STD-810H Method 521.4	
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 50121-4, EN 55024, EN 55032 Class A, EN 55035, EN 61000-6-1, EN 61000-6-2, FCC Part 15 Subpart B Class A, ICES-3(A)/NMB-3(A), IEC 62236-4, KC KN32 Class A, KC KN35, RCM AS/NZS CISPR32 Class A, VCCI Class A Safety IEC/EN/UL 60950-22, IEC/EN/UL 62368-1, IS 13252 Environment IEC 60068-2-1, IEC/EN 60068-2-14, IEC 60068-2-2, IEC 60068-2-27, IEC 60068-2-6, IEC/EN 60068-2-78, IEC/EN 60529 IP66/IP67, IEC/EN 62262 IK10 ^b , ISO 21207 Method B, MIL-STD-810H (Method 501.7, 502.7, 505.7, 506.6, 507.6,	

	509.7, 510.7, 514.8, 516.8, 521.4), NEMA 250 Type 4X, NEMA TS 2 (2.2.7–2.2.9) Network NIST SP500-267	Video management software	AXIS Companion, AXIS Camera Station, video management software from Axis Application Development Partners available at axis.com/vms
Dimensions	Ø132 x 272 mm (Ø5.2 x 10.7 in)	Languages	English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Polish, Traditional Chinese
Weight	1400 g (3.1 lb)	Warranty	5-year warranty, see axis.com/warranty
Included accessories	Installation guide, Windows® decoder 1-user license, Resistorx® L-key, wall and ceiling mount bracket, terminal block connectors, connector guard	Export control	This product is subject to export control regulations, and you should always comply with all applicable national and international export or re-export control regulations.
Optional accessories	AXIS T94F01M J-Box/Gang Box Plate, AXIS T91A47 Pole Mount, AXIS T94P01B Corner Bracket, AXIS T94F01P Conduit Back Box, AXIS Weather Shield K, Axis PoE Midspans For more accessories, see axis.com		<p>a. <i>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).</i></p> <p>b. <i>Excluding front window</i></p>