

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

Variants	AXIS Q1951-E 7 mm/13 mm/19 mm/35 mm	Built-in installation aids	Pixel counter
Camera		Analytics	
Image sensor	Uncooled microbolometer 384x288 pixels, pixel size: 17 µm. Spectral range: 8-14 µm	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
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)	Approvals	
Sensitivity	NETD 40 mK @25C, F1.0	EMC	CISPR 24, CISPR 35, EN 50121-4, EN 55024, EN 55032 Class A, EN 55035, EN 61000-6-1, EN 61000-6-2, IEC 62236-4 Australia/New Zealand: RCM AS/NZS CISPR32 Class A Canada: ICES-3(A)/NMB-3(A) Japan: VCCI Class A Korea: KC KN32 Class A, KC KN35 USA: FCC Part 15 Subpart B Class A
System on chip (SoC)		Safety	IEC/EN/UL 60950-22, IEC/EN/UL 62368-1, IS 13252
Model	ARTPEC-7	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 ^a , 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)
Memory	1024 MB RAM, 512 MB Flash	Network	NIST SP500-267
Video		Cybersecurity	ETSI EN 303 645
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	Cybersecurity	
Resolution	Sensor is 384x288. Image can be scaled up to 768x576.	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+), Axis device ID, secure keystore, signed video, secure boot
Frame rate	Up to 8.3 fps and 30 fps	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
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	Documentation	
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	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	
Audio		General	
Audio streaming	Audio in, simplex, two-way audio via edge-to-edge technology	Casing	IP66/IP67-, NEMA 4X-, and IK10-rated ^a casing Polycarbonate blend, aluminum and a germanium window Color: white NCS S 1002-B
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	Sustainability	PVC free, BFR/CFR free
Audio input/output	External microphone input or line input, digital audio input, network speaker pairing	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
Network		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
Network protocols	IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS, HTTP/2, TLS, 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)	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
System integration		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
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	Data streaming	
Onscreen controls	Heater, electronic image stabilization	Event data	
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		

Storage conditions	-40 °C to 65 °C (-40 °F to 149 °F) Humidity 5-95% RH (non-condensing)
Dimensions	Ø132 x 272 mm (Ø5.2 x 10.7 in)
Weight	1400 g (3.1 lb)
Included accessories	Installation guide, Windows® decoder 1-user license, Resistorx® L-key, wall and ceiling mount bracket, terminal block connectors, connector guard
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

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, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese
Warranty	5-year warranty, see axis.com/warranty
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.

a. Excluding front window