

# 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

<b>Variants</b>	AXIS Q1951-E 7 mm/13 mm/19 mm/35 mm		
<b>Camera</b>			
<b>Image sensor</b>	Uncooled microbolometer 384x288 pixels, pixel size: 17 µm. Spectral range: 8-14 µm		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
<b>Lens</b>	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)	<b>Data streaming</b>	Event data
<b>Sensitivity</b>	NETD 40 mK @25C, F1.0	<b>Built-in installation aids</b>	Pixel counter
<b>System on chip (SoC)</b>		<b>Analytics</b>	
<b>Model</b>	ARTPEC-7	<b>Applications</b>	<b>Included</b> AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard AXIS Video Motion Detection, active tampering alarm, audio detection <b>Supported</b> AXIS Perimeter Defender with AI-based functionality Support for AXIS Camera Application Platform enabling installation of third-party applications, see <a href="https://axis.com/acap">axis.com/acap</a>
<b>Memory</b>	1024 MB RAM, 512 MB Flash	<b>Approvals</b>	
<b>Video</b>		<b>EMC</b>	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 <b>Australia/New Zealand:</b> RCM AS/NZS CISPR32 Class A <b>Canada:</b> ICES-3(A)/NMB-3(A) <b>Japan:</b> VCCI Class A <b>Korea:</b> KC KN32 Class A, KC KN35 <b>USA:</b> FCC Part 15 Subpart B Class A
<b>Video compression</b>	H.264 (MPEG-4 Part 10/AVC) Baseline, Main, and High Profiles H.265 (MPEG-H Part 2/HEVC) Main Profile Motion JPEG	<b>Safety</b>	IEC/EN/UL 60950-22, IEC/EN/UL 62368-1, IS 13252
<b>Resolution</b>	Sensor is 384x288. Image can be scaled up to 768x576.	<b>Environment</b>	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 <sup>3</sup> , 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)
<b>Frame rate</b>	Up to 8.3 fps and 30 fps	<b>Network</b>	NIST SP500-267
<b>Video streaming</b>	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	<b>Cybersecurity</b>	ETSI EN 303 645, FIPS 140
<b>Image settings</b>	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	<b>Cybersecurity</b>	
<b>Audio</b>		<b>Edge security</b>	<b>Software:</b> Signed OS, 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 <b>Hardware:</b> 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
<b>Audio streaming</b>	Audio in, simplex, two-way audio via edge-to-edge technology	<b>Network security</b>	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
<b>Audio encoding</b>	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	<b>Documentation</b>	
<b>Audio input/output</b>	External microphone input or line input, digital audio input, network speaker pairing	<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 <a href="https://axis.com/support/cybersecurity/resources">axis.com/support/cybersecurity/resources</a> To read more about Axis cybersecurity support, go to <a href="https://axis.com/cybersecurity">axis.com/cybersecurity</a>	
<b>Network</b>		<b>General</b>	
<b>Network protocols</b>	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)	<b>Casing</b>	IP66/IP67-, NEMA 4X-, and IK10-rated <sup>a</sup> casing Polycarbonate blend, aluminum and a germanium window Color: white NCS S 1002-B
<b>System integration</b>		<b>Sustainability</b>	PVC free, BFR/CFR free
<b>Application Programming Interface</b>	Open API for software integration, including VAPIX® and AXIS Camera Application Platform (ACAP); specifications at <a href="https://axis.com/developer-community">axis.com/developer-community</a> . One-click cloud connection ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specification at <a href="https://onvif.org">onvif.org</a>	<b>Power</b>	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
<b>Video management systems</b>	Compatible with AXIS Camera Station Edge, AXIS Camera Station Pro, AXIS Camera Station 5, and video management software from Axis' partners available at <a href="https://axis.com/vms">axis.com/vms</a> .	<b>Connectors</b>	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
<b>Onscreen controls</b>	Heater, electronic image stabilization	<b>Storage</b>	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 <a href="https://axis.com">axis.com</a>
<b>Event conditions</b>	Analytics, operating temperature, supervised external input, edge storage events, digital audio, virtual inputs through API		
<b>Event actions</b>	Record video: SD card and network share Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email		

<b>Operating conditions</b>	-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	<b>Optional accessories</b>	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 <a href="http://axis.com">axis.com</a>
<b>Storage conditions</b>	-40 °C to 65 °C (-40 °F to 149 °F) Humidity 5–95% RH (non-condensing)	<b>Languages</b>	English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Polish, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese
<b>Dimensions</b>	Ø132 x 272 mm (Ø5.2 x 10.7 in)	<b>Warranty</b>	5-year warranty, see <a href="http://axis.com/warranty">axis.com/warranty</a>
<b>Weight</b>	1400 g (3.1 lb)	<b>Export control</b>	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.
<b>Included accessories</b>	Installation guide, Windows® decoder 1-user license, Resistorx® L-key, wall and ceiling mount bracket, terminal block connectors, connector guard		

a. *Excluding front window*