AXIS Q8752-E Bispectral PTZ Camera

Thermal detection and visual verification

AXIS Q8752-E offers reliable thermal detection and visual verification in one bispectral camera. It features 360° infinite pan for fast repositioning and continuous tracking of objects. Featuring Electronic Image Stabilization (EIS) on both channels it ensures smooth video. Forensic WDR and Lightfinder 2.0 guarantees images with saturated colors and sharp details of moving objects even in challenging light or near darkness. This robust camera is packed with advanced security functionality. Built on a powerful analytics platform, it's easy to add custom-made 3rd party analytics. Furthermore, it's possible to connect AXIS Q8752-E using fiber optic cabling to overcome distance and bandwidth limitations.

- > Thermal and visual camera in one
- > 360° infinite pan
- > Dual Electronic Image Stabilization
- > Signed firmware, secure boot, and TPM 2.0
- > Thermal palettes

AXIS Q8752-E Bispectral PTZ Camera

Variants
AXIS Q8752-E 35 mm 8.3/30 fps
AXIS Q8752-E Zoom 8.3/30 fps

Camera

Image sensor
Visual: 1/2.8" progressive scan CMOS
Thermal: Uncooled microbolometer 640x480 pixels, pixel size: 17 µm. Spectral range: 8–14 µm

Lens
Visual: Varifocal, 4.3-137.6 mm, F1.4-4.0
Horizontal field of view: 58.5°–2.4°
Vertical field of view: 35°–1.3°
Autofocus, auto-iris
Thermal:
35 mm:
Athermalized 35 mm, F1.2
Near focus distance: 33 m (108 ft)
Horizontal field of view: 17°
Vertical field of view: 12.8°
Zoom:
Athermalized 35–105 mm, F1.6
Near focus distance: 22–195 m (72–640 ft)
Near manual focus distance: 7 m (23 ft)
Horizontal field of view: 18°–6°
Vertical field of view: 13.5°–4.5°

Day and night
Visual: Automatically removable infrared-cut filter

Minimum illumination
Visual:
Color: 0.09 lux at 30 IRE, F1.4
B/W: 0.008 lux at 30 IRE, F1.4
Color: 0.06 lux at 50 IRE, F1.4
B/W: 0.01 lux at 50 IRE, F1.4

Sensitivity
Thermal: NETD < 50 mK

Shutter speed
Visual: 1/66500 s to 2 s

Pan/Tilt/Zoom
Pan: 360° endless, 0.05°–120°/s
Tilt: -90° to +45°, 0.05°–65°/s
Jerk-free movements at low speed: ±0.01°/s (at 0.05°/s)
Preset accuracy: 0.05°
256 preset positions, guard tour, control queue, focus window, on-screen directional indicator, de-icing control[1], dynamic load balancing[2]
Visual: 32x optical zoom, 12x digital zoom, total 384x zoom, focus recall
Thermal: Zoom: 3x thermal zoom and 4x digital zoom, total 12x zoom

System on chip (SoC)

Model
ARTPEC-7

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
Visual: 1920x1080 HDTV 1080p to 320x180
Thermal: Sensor is 640x480. Image can be scaled up to 800x600 (SVGA)

Frame rate
Visual: Up to 50/60 fps (50/60 Hz) in HDTV 1080p
Thermal: 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

1. *Internal heaters to defrost ice build-up, activated by HTTP API (VAPIX).*
2. *Pan and tilt motors actively compensate for changes in load conditions induced by external forces such as high winds. This allows minimum power consumption at low wind.*

Image settings
Visual: Saturation, contrast, brightness, sharpness, Forensic WDR: up to 120 dB depending on scene, white balance, day/night threshold, tone mapping, exposure control, exposure zones, defogging, compression, dynamic text and image overlay, 32 individual polygon privacy masks, electronic image stabilization
Thermal: Compression, brightness, sharpness, contrast, local contrast, exposure control, exposure zones, text and image overlay, electronic image stabilization

Signal-to-noise ratio
>55 dB

Audio

Audio streaming
Audio in, simplex
Echo cancellation and noise cancellation

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

Network

Security
IP address filtering, HTTPS[3] encryption, IEEE 802.1x (EAP-TLS)[3] network access control, user access log, centralized certificate management

Network protocols
IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS[3], HTTP/2, TLS[3], QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, NTS, RTSP, RTP, SRTP/RTSPS, TCP, UDP, IGMP, RTCP, ICMP, DHCPv4/v6, ARP, SSH, NTCIP, 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*
ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specification at *onvif.org*

Video management systems
Compatible with AXIS Camera Station Edge, AXIS Camera Station Pro, AXIS Camera Station 5, and video management software from Axis' partners available at *axis.com/vms*.

Event conditions
Device status: above operating temperature, above or below operating temperature, below operating temperature, IP address removed, network lost, new IP address, PTZ power failure, ring power overcurrent protection, storage failure, system ready, within operating temperature
Digital audio input status
Edge storage: recording ongoing, storage disruption, storage health issues detected
PTZ: PTZ malfunctioning, PTZ movement, PTZ preset position reached, PTZ ready
Scheduled and recurring: scheduled event
Video: average bitrate degradation, day-night mode, live stream open

Event actions
Day-night mode
Guard tour
I/O
Images: FTP, HTTP, HTTPS, SFTP, email and network share
IR illumination: turn on, use while the rule is active
MQTT: publish
Notification: HTTP, HTTPS, TCP and email
Overlay text
Preset positions
PTZ Autotracking: start temporary detection, toggle autotracking
Recordings
SNMP trap messages: send messages
Video clips: FTP, HTTP, HTTPS, SFTP, email and network share
WDR mode
Wiper

Data streaming
Event data

Built-in installation aids
Pixel counter, focus assistant

3. *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).*

Analytics

Applications
Included
AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard
AXIS Video Motion Detection, Orientation AID PTZ, audio detection, advanced gatekeeper
Support for AXIS Camera Application Platform enabling installation of third-party applications, see *axis.com/acap*

Approvals

EMC
EN 55032 Class A, EN 55024, EN 61000-6-1, EN 61000-6-2, CISPR 35, EN 50121-4, EN 50498
Australia/New Zealand: RCM AS/NZS CISPR 32 Class A
Canada: ICES-3(A)/NMB-3(A)
Japan: VCCI Class A ITE
Korea: KC KN32 Class A, KC KN35
USA: FCC Part 15 Subpart B Class A
Railway: IEC 62236-4

Safety
IEC/EN/UL 62368-1, IEC/EN/UL 60950-22, CAN/CSA C22.2 No. 62368-1, CAN/CSA-C22.2 No. 60950-22

Environment
IEC/EN 60529 IP66, IEC 62262 IK10[4], NEMA 250 Type 4x, NEMA TS 2 (2.2.7-2.2.9), ISO 21207 (Method B), IEC/EN 60068-2-1, IEC/EN 60068-2-2, IEC 60068-2-6, IEC/EN 60068-2-14, IEC 60068-2-27, IEC/EN 60068-2-78, MIL-STD-810G (Method 501.5, 502.5, 505.5, 506.5, 507.5, 509.5)

Network
NIST SP500-267

Cybersecurity
ETSI EN 303 645, BSI IT Security Label, FIPS 140

Cybersecurity

Edge security
Software: Signed OS, brute force delay protection, digest authentication and OAuth 2.0 RFC6749 Client Credential Flow/OpenID Authorization Code Flow for centralized ADFS account management, password protection, Axis Cryptographic Module (FIPS 140-2 level 1), 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

Network security
IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)[5], IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR, HTTPS/HSTS[5], TLS v1.2/v1.3[5], Network Time Security (NTS), X.509 Certificate PKI, host-based firewall

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-, NEMA 4X- and IK10-rated[4] powder coated aluminum
Color: white NCS S 1002-B
Front window: **visual:** glass, **thermal:** germanium
Long-life silicone wiper
Weathershield: high-impact UV-stabilized thermoplastic

Sustainability
PVC free

Memory
2048 MB RAM, 512 MB Flash

4. *Excluding front window.*
5. *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).*

Power
20–28 V AC/DC, typical 16 W, max 204 W
Power loss recovery[6]
TVS 2000V, surge protection, voltage transient protection
I/O connector: output power 12 V DC, max load 50 mA

Connectors
SFP slot (SFP module not included)[7]
Shielded RJ45 10BASE-T/100BASE-TX/1000BASE-T
I/O: 6-pin 2.5 mm terminal block for 4 configurable inputs/outputs
Power: terminal block
Audio (in camera unit): 3.5 mm mic/line in
Illumination (in upper part of positioning unit)

Storage
Support for microSD/microSDHC/microSDXC card and encryption
Recording to network-attached storage (NAS)
For SD card and NAS recommendations see *axis.com*

Operating conditions
-40 °C to 55 °C (-40 °F to 131 °F)
Maximum temperature (intermittent): 65 °C (149 °F)
Start-up temperature: -40 °C (-40 °F)
Humidity 10-100% RH (condensing)
Wind load when PTZ operational
37 m/s (83 mph)[8], 45 m/s (100 mph) without weathershield
With AXIS PT IR Illuminator Kit C: 40 m/s (90 mph), 52 m/s (116 mph) without weathershield
Maximum effective projected area (EPA): 0.138 m^2

Storage conditions
-40 °C to 70 °C (-40 °F to 158 °F)

Dimensions
244 x 360 x 582 mm (9.5 x 14 x 23 in)

Weight
35 mm: 14.7 kg (32.4 lb)
Zoom: 15.1 kg (33.3 lb)

Included accessories
Installation guide, Windows® decoder 1-user license, connector kit, Torx® T20 bit, Torx® T30 bit, connector guard

Optional accessories
AXIS Surveillance Cards, AXIS T94J01A Wall Mount, AXIS T94N01G Pole Mount, AXIS T95A64 Corner Bracket, AXIS Washer Kit B, AXIS Cable 24 V DC/24-240 V AC 22 m[9], AXIS T8611 SFP Module LC.LX, AXIS T8612 SFP Module LC.SX, AXIS T8613 SFP Module 1000BASE-T, AXIS PT IR Illuminator Kit C, AXIS T99 Illuminator Bracket Kit A, Power supply DIN PS24 480 W, AXIS T61 Audio and I/O Interface Series
For more accessories, see *axis.com*

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
The product contains U.S.-origin controlled technology/component, the US Export Administration Regulations (EAR) are always applicable to the product. You should comply at all times with all applicable national and international (re-) export control regulations.

6. *IP data and home position retained, and guard tour and other events resumed.*
7. *If a network link is established via both the SFP slot and the RJ45 connector, the former acts as the primary link and the latter as the fail-over link.*
8. *The values shown are based on results from actual wind tunnel testing. For drag force calculations, use maximum effective projected area (EPA).*
9. *When using the 22 m (72 ft) AXIS Cable 24 V DC/24–240 V AC, a power supply capable of delivering 300 W is required to compensate for the power loss in the cable.*