

# 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:  $\pm 0.01^\circ/\text{s}$  (at 0.05°/s)  
Preset accuracy: 0.05°  
256 preset positions, guard tour, control queue, focus window, on-screen directional indicator, de-icing control<sup>1</sup>, dynamic load balancing<sup>2</sup>  
**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<sup>3</sup> encryption, IEEE 802.1x (EAP-TLS)<sup>3</sup> network access control, user access log, centralized certificate management

### Network protocols

IPv4, IPv6, USGv6, ICMPv4/ICMPv6, HTTP, HTTPS<sup>3</sup>, HTTP/2, TLS<sup>3</sup>, QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP<sup>®</sup>, 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<sup>®</sup> and AXIS Camera Application Platform; specifications at [axis.com](https://axis.com)  
ONVIF<sup>®</sup> Profile G, ONVIF<sup>®</sup> Profile M, ONVIF<sup>®</sup> Profile S, and ONVIF<sup>®</sup> Profile T, specification at [onvif.org](https://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](https://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](https://openssl.org)), and cryptographic software written by Eric Young ([ey@cryptsoft.com](mailto:ey@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](http://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<sup>4</sup>,

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)<sup>5</sup>,

IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR,

HTTPS/HSTS<sup>5</sup>, TLS v1.2/v1.3<sup>5</sup>, 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](http://axis.com/support/cybersecurity/resources)

To read more about Axis cybersecurity support, go to [axis.com/cybersecurity](http://axis.com/cybersecurity)

## General

### Casing

IP66-, NEMA 4X- and IK10-rated<sup>4</sup> 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](http://openssl.org)), and cryptographic software written by Eric Young ([ey@cryptsoft.com](mailto:ey@cryptsoft.com)).

## Power

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

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## Connectors

SFP slot (SFP module not included)<sup>7</sup>  
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)

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## Storage

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

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## 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)<sup>8</sup>, 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<sup>2</sup>

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## Storage conditions

–40 °C to 70 °C (–40 °F to 158 °F)

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## Dimensions

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

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## Weight

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

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## Included accessories

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

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## 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<sup>9</sup>, 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](https://axis.com)

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## Languages

English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Polish, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese

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## Warranty

5-year warranty, see [axis.com/warranty](https://axis.com/warranty)

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## 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.