AXIS P4705-PLVE Panoramic Camera
Dual-sensor with 360° IR and deep learning

This dual-sensor, multidirectional camera offers 2*2 MP at 30 fps. It features Lightfinder and Forensic WDR for sharp, clear images in challenging or poor light conditions. Built on ARTPEC-8, this high-performance camera includes a deep learning processing unit enabling improved processing and storage capabilities. It also allows you to collect and analyze even more data than before – on the edge. Plus, it delivers valuable metadata facilitating fast, easy, and efficient forensic search capabilities in live or recorded video. And, with flexible positioning of both varifocal camera heads plus, remote zoom and focus capabilities, it ensures fast and cost-effective installation.

> **2*2 MP, multidirectional camera, with one IP address**

> **Support for analytics with deep learning on both sensors**

> **360° IR illumination**

> **2.5x zoom**

> **Axis Lightfinder and Forensic WDR**

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Camera

Image sensor	2 x 1/2.8" progressive scan RGB CMOS
Lens	Varifocal, 3.3–8.1 mm, F1.9–3.2 Horizontal field of view: 107°–39° Vertical field of view: 55°–22° Diagonal field of view: 131°–45° Minimum focus distance: 0.5 m (1.6 ft) Fixed iris, IR corrected, remote zoom and focus
Day and night	Automatically removable infrared-cut filter
Minimum illumination	**Color:** 0.15 lux at 50 IRE, F1.9 **B/W:** 0 lux at 50 IRE, F1.9 0 lux with IR illumination on
Shutter speed	1/20000 s to 1.5 s with 60/50 Hz
Camera adjustment	Pan ±110°, tilt ±75°, rotation ±170°

System on chip (SoC)

Model	ARTPEC-8
Memory	2048 MB RAM, 8192 MB Flash
Compute capabilities	Deep learning processing unit (DLPU)

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	2x 1920x1080 (2x HDTV 1080p) to 2x 640x360
Frame rate	Up to 60/50 fps (60/50 Hz) in all resolutions
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 Low latency mode
Image settings	Saturation, contrast, brightness, sharpness, Forensic WDR, white balance, day/night threshold, tone mapping, exposure mode, exposure zones, barrel distortion correction, compression, rotation: 0°, 90°, 180°, 270° including corridor format, mirroring, dynamic text and image overlay, polygon privacy mask

Audio

Audio streaming	Audio in, simplex Two-way audio via edge-to-edge technology
	External microphone input or line input, ring power, digital audio input, automatic gain control Network speaker pairing Audio features through portcast technology: two-way audio connectivity, voice enhancer
Audio encoding	24bit LPCM, AAC-LC 8/16/32/44.1/48 kHz, G.711 PCM 8 kHz, G.726 ADPCM 8 kHz, Opus 8/16/48 kHz Configurable bit rate

Network

Network protocols	IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS[a], HTTP/2, TLS[b], QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, NTS, RTSP, RTCP, RTP, SRTP/RTSPS, TCP, UDP, IGMPv1/v2/v3, DHCPv4/v6, ARP, 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/developer-community* One-click cloud connection 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*.
Onscreen controls	IR illumination Autofocus Privacy mask

Play media clip

Event conditions

Event conditions	Analytics, virtual inputs through API Audio: audio detection Device status: above operating temperature, above or below operating temperature, below operating temperature, within operating temperature, IP address removed, new IP address, network lost, system ready, ring power overcurrent protection, live stream active, casing open Digital audio: digital signal contains Axis metadata, digital signal has invalid sample rate, digital signal missing, digital signal okay Edge storage: recording ongoing, storage disruption, storage health issues detected I/O: manual trigger, virtual input MQTT: subscribe Scheduled and recurring: schedule Video: average bitrate degradation, day-night mode, live stream open, tampering
Event actions	Overlay text, day/night mode, flash status LED Audio clips: play, stop Illumination: use lights, use lights while the rule is active MQTT: publish Notification: HTTP, HTTPS, TCP and email Pre- and post-alarm video or image buffering for recording or upload Record video: SD card and network share SNMP traps: send, send while the rule is active Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email
Built-in installation aids	Pixel counter, remote zoom and focus, level grid

Analytics

Applications	**Included** AXIS Object Analytics, AXIS Scene Metadata, AXIS Video Motion Detection, active tampering alarm, audio detection Support for AXIS Camera Application Platform enabling installation of third-party applications, see *axis.com/acap*
AXIS Object Analytics	**Object classes:** humans, vehicles (types: cars, buses, trucks, bikes, other) **Scenarios:** line crossing, object in area, crossline counting, occupancy in area, time in area Up to 10 scenarios **Other features:** triggered objects visualized with trajectories, color-coded bounding boxes and tables Polygon include/exclude areas Perspective configuration ONVIF Motion Alarm event
AXIS Scene Metadata	**Object classes:** humans, faces, vehicles (types: cars, buses, trucks, bikes), license plates **Object attributes:** Vehicle color, upper/lower clothing color, confidence, position

Approvals

EMC	CISPR 35, CISPR 32 Class A, EN 55035, EN 55032 Class A, EN 50121-4, EN 61000-6-1, EN 61000-6-2 **Australia/New Zealand:** RCM AS/NZS CISPR 32 Class A **Canada:** ICES-3(A)/NMB-3(A) **Japan:** VCCI Class A **Korea:** KS C 9835, KS C 9832 Class A **USA:** FCC Part 15 Subpart B Class A **Railway:** IEC 62236-4
Safety	CAN/CSA C22.2 No. 60950-22, CAN/CSA C22.2 No. 62368-1 ed. 3, IEC/EN/UL 62368-1, IEC/EN 62471, IEC/EN/UL 60950-22, IS 13252
Environment	IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78, IEC/EN 60529 IP66/IP67, IEC/EN 62262:2002 IK10, MIL-STD-810H (Method 501.7, 502.7, 505.7, 506.6, 507.6, 509.7, 512.6)[c], NEMA 250 Type 4X, NEMA TS 2 (2.2.7-2.2.9)
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 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+), system-on-chip security (TEE), Axis device ID, secure keystore, signed video, secure boot, encrypted filesystem (AES-XTS-Plain64 256bit)

Network security	IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)[d], IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR, HTTPS/HSTS[e], TLS v1.2/v1.3[f], 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-, IP67-, NEMA 4X- and IK10-rated Polycarbonate hard-coated dome Aluminum and plastic casing, weathershield Color: white NCS S 1002-B or black NCS S 9000-N
Mounting	Mounting bracket with junction box holes (double-gang, single-gang, 4" square, and 4" octagon) ¼"-20 UNC tripod screw thread ½" (M20) conduit side entry
Sustainability	PVC and BFR/CFR free, 7% recycled plastics, 2% bioplastics
Power	Power over Ethernet (PoE) IEEE802.3at Type 2 Class 3 Typical 6.2 W, max 12.95 W Power over Ethernet (PoE) IEEE802.3at Type 2 Class 4 Typical 8.3 W, max 17.5 W
Connectors	Shielded RJ45 10BASE-T/100BASE-TX/1000BASE-T PoE 3.5 mm mic/line in
IR illumination	OptimizedIR with power-efficient, long-life 850 nm IR LEDs PoE Class 3: range of reach 15 m (50 ft) or more depending on the scene PoE Class 4: range of reach 30 m (98 ft) or more depending on the scene

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	-30 °C to 50 °C (-22 °F to 122 °F) Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F) Start-up temperature: -30 °C Humidity 10–100% RH (non-condensing)
Storage conditions	-40 °C to 65 °C (-40 °F to 149 °F) Humidity 5–95% RH (non-condensing)
Dimensions	Height: 88 mm (3.5 in) Width: 133 mm (5.2 in) Length: 208 mm (8.2 in)
Weight	975 g (2.1 lb)
Included accessories	Installation guide, Windows® decoder 1-user license, connector kit, weathershield, connector guard
Optional accessories	Black casing, smoked dome, conduit adapters, AXIS T94N02 Pendant Kit AXIS T8415 Wireless Installation Tool AXIS Surveillance Cards 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*

a. *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).*
b. *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).*
c. *Method 505.7 with weathershield*
d. *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).*
e. *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).*
f. *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).*