

# AXIS M4308-PLE Panoramic Camera

## 12 MP outdoor-ready dome with audio capture

AXIS M4308-PLE is a discreet, outdoor-ready mini dome designed to blend seamlessly into any environment. With a 12 MP sensor and stereographic lens, it offers outstanding images and complete 360° panoramic overview. Thanks to Sharpdome 360, this panoramic camera delivers greater sharpness at the edges of the image. AXIS Object Analytics is included and a deep learning processing unit (DLPU) enables unique opportunities to take advantage of analytics based on deep learning on the edge. It includes Axis Lightfinder and Axis Forensic WDR for true colors and great details in challenging light or near darkness. Plus, Axis OptimizedIR for surveillance in pitch darkness. Four built-in microphones and voice enhancer offers audio capture with great noise suppression.

- > [12 MP sensor with 360° overview](#)
- > [Stereographic lens and Sharpdome 360](#)
- > [Lightfinder, Forensic WDR, OptimizedIR](#)
- > [Support for analytics with deep learning](#)
- > [4 microphones with voice enhancer](#)



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## Camera

<b>Image sensor</b>	1/1.7" progressive scan RGB CMOS
<b>Lens</b>	1.3 mm, F2.4 Horizontal field of view: 183° Vertical field of view: 183° Fixed iris, fixed focus, IR corrected
<b>Day and night</b>	Automatically removable infrared-cut filter
<b>Minimum illumination</b>	Color: 0.19 lux at 50 IRE, F2.4 B/W: 0.04 lux at 50 IRE, F2.4 0 lux with IR illumination on
<b>Shutter speed</b>	1/22000 s to 1 s
<b>Camera angle adjustment</b>	Digital roll: ± 180°

## System on chip (SoC)

<b>Model</b>	ARTPEC-7
<b>Memory</b>	2 GB RAM, 1 GB Flash
<b>Compute capabilities</b>	Deep learning processing unit (DLPU)

## Video

<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>Resolution</b>	Overview: 2880x2880 to 160x160 Panorama: 3840x2160 to 192x72 Double Panorama: 3584x2688 to 512x288 Quad view: 3584x2688 to 512x288 View area 1-4: 2048x1536 to 256x144 Corner right/left: 3200x1200 to 192x72 Double corner: 2560x1920 to 480x480 Corridor: 2560x1920 to 256x144
<b>Frame rate</b>	360° overview only, up to 2880x2880 without WDR: 25/30 fps @ 50/60 Hz 360° overview and dewarped views up to max resolution with WDR: up to 12.5/15 fps @ 50/60 Hz
<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 Low latency mode
<b>Multi-view streaming</b>	360° overview, dewarped panorama, corridor, corner left/right and quad views. Up to 4 individually cropped out and dewarped view areas. All different views can be streamed simultaneously. When streaming 4 dewarped view areas and one 360° overview in max resolution: up to 19 fps per stream.
<b>Image settings</b>	Compression, color saturation, brightness, sharpness, contrast, local contrast, white balance, day/night threshold, tone mapping, exposure control (including automatic gain control), exposure zones, Forensic WDR: up to 120 dB depending on scene, fine tuning of low-light behavior, dynamic text and image overlay, mirroring, digital roll, polygon privacy masks
<b>Pan/Tilt/Zoom</b>	Digital PTZ of view areas, digital PT of panorama, corner, corridor and quad views, preset positions, guard tours

## Audio

<b>Audio streaming</b>	One-way, simplex, mono or stereo. Voice enhancement
<b>Audio encoding</b>	LPCM 48 kHz, 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
<b>Audio input/output</b>	4 built-in microphones (can be disabled), network speaker pairing

## Network

<b>Network protocols</b>	IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS, HTTP/2, TLS, 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, SIP, LLDP, CDP, MQTT v3.1.1, Secure syslog (RFC 3164/5424, UDP/TCP/TLS), Link-Local address (ZeroConf)
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## System integration

<b>Application Programming Interface</b>	Open API for software integration, including VAPIX®, metadata, and AXIS Camera Application Platform (ACAP); specifications at <a href="https://axis.com/developer-community">axis.com/developer-community</a> . ACAP includes Native SDK and Computer Vision SDK. AXIS Guardian with One-Click Connection ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, ONVIF® Profile T specification at <a href="https://onvif.org">onvif.org</a> Support for Session Initiation Protocol (SIP) for integration with Voice over IP (VoIP) systems, peer to peer or integrated with SIP/PBX
<b>Onscreen controls</b>	Day/night shift Wide dynamic range Video streaming indicator IR illumination
<b>Event conditions</b>	Analytics, edge storage events, virtual inputs through API, supervised external inputs, open casing, audio detection MQTT subscribe
<b>Event actions</b>	Record video/audio: SD card and network share MQTT publish Upload of images or video/audio 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 PTZ: PTZ preset, start/stop guard tour Overlay text, external output activation, play audio clip, zoom preset, day/night mode
<b>Built-in installation aids</b>	Pixel counter, digital roll, repositioning of quad views, digital PTZ of view areas, digital PT of panorama, corner, corridor and quad views

## Analytics

<b>Applications</b>	<b>Included</b> AXIS Object Analytics, Scene metadata, AXIS Video Motion Detection, active tampering alarm, audio detection <b>Supported</b> Support for additional applications if the device is used with compatible accessories. For more information, contact your Axis partner. Support for AXIS Camera Application Platform enabling installation of third-party applications, see <a href="https://axis.com/acap">axis.com/acap</a>
<b>AXIS Object Analytics</b>	<b>Object classes:</b> humans, vehicles (types: cars, buses, trucks, bikes) <b>Scenarios:</b> line crossing, object in area Up to 10 scenarios <b>Other features:</b> triggered objects visualized with trajectories, color-coded bounding boxes and tables Polygon include/exclude areas Perspective configuration ONVIF Motion Alarm event
<b>Scene metadata</b>	<b>Object classes:</b> humans, faces, vehicles (types: cars, buses, trucks, bikes), license plates <b>Object attributes:</b> confidence, position

## Cybersecurity

<b>Edge security</b>	<b>Software:</b> 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 <b>Hardware:</b> Axis Edge Vault cybersecurity platform Secure element (CC EAL 6+), Axis device ID, secure keystore, signed video, secure boot
<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

## Documentation

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

General	
<b>Casing</b>	IP66-, NEMA 4X- and IK10-rated (IR window IK09) Polycarbonate hard coated dome Sharpdome 360 Aluminum Color: white NCS S 1002-B For repainting instructions of skin cover or casing and impact on warranty, contact your Axis partner.
<b>Sustainability</b>	PVC free
<b>Power</b>	Power over Ethernet (PoE) IEEE 802.3at Type 2 Class 4 Typical 7.9 W, max 15.5 W
<b>Connectors</b>	Shielded RJ45 10BASE-T/100BASE-TX PoE Terminal block for 1 supervised alarm input and 1 output (12 V DC output, max. load 25 mA)
<b>IR illumination</b>	Optimized IR with power-efficient, long-life 850 nm IR LEDs Range of reach 15 m (49 ft) or more depending on scene
<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>Operating conditions</b>	-40 °C to 50 °C (-40 °F to 122 °F) Start-up temperature: -30 °C to 50 °C (-22 °F to 122 °F) Maximum temperature (intermittent): 55 °C (131 °F) Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F) Humidity 10–100% RH (condensing)
<b>Storage conditions</b>	-40 °C to 65 °C (-40 °F to 149 °F) Humidity 5–95% RH (non-condensing)
<b>Approvals</b>	EMC EN 55032 Class A, EN 55035, EN 61000-6-1, EN 61000-6-2, FCC Part 15 Subpart B Class A, ICES-3(A)/NMB-3(A), VCCI Class A, RCM AS/NZS CISPR 32 Class A, KS C9832 Class A, KS C9835

#### Safety

IEC/EN/UL 60950-22, IEC/EN/UL 62368-1, IEC/EN 62471, IS 13252

#### Environment

IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, 60068-2-78, IEC/EN 60529 IP66, IEC/EN 62262 IK10 (IR window IK09), NEMA 250 Type 4X, NEMA TS 2 (2.2.7-2.2.9)

#### Network

IPv6 USGv6, NIST SP500-267

<b>Cybersecurity</b>	ETSI EN 303 645
<b>Dimensions</b>	Height: 69 mm (2.7 in) ø 149 mm (5.8 in)
<b>Weight</b>	850 g (1.9 lb)
<b>Included accessories</b>	Installation guide, Windows® decoder 1-user license, drill hole template, cable gaskets, connector guard, I/O connector, RESISTORX® TR20 bit, mounting bracket, cable hole lid, view protector
<b>Optional accessories</b>	AXIS T94T02D Pendant kit with weathershield AXIS Surveillance Cards AXIS TM3808-E Skin Cover Black AXIS Mounts & Cabinets AXIS TM3204 Recessed Mount AXIS TM3206 Recessed Mount For more accessories, see <a href="https://axis.com">axis.com</a>
<b>Video management software</b>	AXIS Device Manager, AXIS Companion, AXIS Camera Station, video management software from Axis Application Development Partners available at <a href="https://axis.com/vms">axis.com/vms</a>
<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>Warranty</b>	5-year warranty, see <a href="https://axis.com/warranty">axis.com/warranty</a>