AXIS P1378-LE Network Camera

Excellent details in 4K for the great outdoors

With a robust design, AXIS P1378-LE offers excellent details in 4K resolution and can withstand extreme temperatures ranging from -40 °C to 60 °C (-40 °F to 140 °F). For extra protection an optional weathershield is available. It delivers excellent details in challenging or low light and includes Axis OptimizedIR for surveillance in pitch darkness. Designed as a deterrent, it includes electronic image stabilization, shock detection, tampering alarm and video streaming indicator. Axis Zipstream supporting H.264/H.265 provides exceptional savings on bandwidth and storage. Plus, with CS mount and support for motorized i-CS, you can easily change lens to meet your requirements.

- > 4K resolution
- > OptimizedIR and Forensic WDR
- > Signed firmware and secure boot
- > Electronic image stabilization
- > Zipstream supporting H.264 and H.265

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Camera

Image sensor	1/1.8" progressive scan RGB CMOS
Lens	IR corrected, CS-mount lens, P-Iris Varifocal 3.9–10 mm, F1.5 **With IK10 protection in front window** Horizontal field of view: 115°–45° Vertical field of view: 61°–25° **Without IK10 protection in front window** Horizontal field of view: 119°–45° Vertical field of view: 62°–25°
Day and night	Automatically removable infrared-cut filter
Minimum illumination	**4K 25/30 fps with Forensic WDR and Lightfinder:** **Color:** 0.15 lux, at 50 IRE F1.5 **B/W:** 0.03 lux, at 50 IRE F1.5 0 lux with IR illumination on
Shutter speed	1/8500 s to 1/5 s

System on chip (SoC)

Model	ARTPEC-7
Memory	2 GB RAM, 512 MB Flash
Compute capabilities	Machine learning processing unit (MLPU)

Video

Video compression	H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles H.265 (MPEG-H Part 2/HEVC) Motion JPEG Controllable frame rate and bandwidth
Resolution	3840x2160 (4K) to 160x90
Frame rate	25/30 fps (50/60 Hz)
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 Video streaming indicator
Multi-view streaming	Up to 8 individually cropped out view areas
Image settings	Saturation, contrast, brightness, sharpness, Forensic WDR: Up to 120 dB depending on scene, white balance, day/night threshold, exposure mode, exposure zones, local contrast, tone mapping, compression, orientation: auto, 0°, 90°, 180°, 270° including Corridor Format, mirroring of images, dynamic text and image overlay, privacy masks, defogging, electronic image stabilization, barrel distortion correction, scene profiles: forensic, vivid, traffic overview
Pan/Tilt/Zoom	Digital PTZ Uploadable PTZ driver (Pelco D pre-installed)

Audio

Audio streaming	Two-way, full duplex
Audio encoding	AAC LC 8/16/32/48 kHz, G.711 PCM 8 kHz, G.726 ADPCM 8 kHz, Opus 8/16/48 kHz, LPCM 8/16/32/48 kHz Configurable bit rate
Audio input/output	External microphone input, line input, digital input with ring power, line output, automatic gain control

Network

Security	IP address filtering, HTTPS[a] encryption, IEEE 802.1X (EAP-TLS)[a] network access control, user access log, centralized certificate management
Network protocols	IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS[a], HTTP/2, TLS[a], QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP™, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, NTS, RTSP, RTP, SFTP, SRTP/RTSPS, TCP, UDP, IGMPv1/v2/v3, RTCP, ICMP, 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* AXIS Video Hosting System (AVHS) with One-Click Connection One-click cloud connection ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S and ONVIF® Profile T, specification at *onvif.org*
Onscreen controls	Electronic image stabilization Day/night shift Defogging Wide dynamic range
Event triggers	Analytics, shock detection, open casing, edge storage events, supervised external input, audio level, time scheduled MQTT subscribe
Event actions	File upload: FTP, SFTP, HTTP, HTTPS, network share and email Notification: email, HTTP, HTTPS and TCP External output activation Video recording to edge storage, Play audio clip Pre- and post-alarm video buffering PTZ preset, Guard tour, Overlay text Day/Night switching, Status LED activation MQTT publish Send SNMP trap
Built-in installation aids	Focus assistant, pixel counter, remote back focus, autorotation, remote focus and zoom and with optional i-CS lens.

Analytics

AXIS Object Analytics	**Object classes**: humans, vehicles **Trigger conditions**: line crossing, object in area, time in area[BETA] Up to 10 scenarios Metadata visualized with trajectories and color-coded bounding boxes Polygon include/exclude areas Perspective configuration ONVIF Motion Alarm event
Metadata	**Object data**: Classes: humans, faces, vehicles, license plates Confidence, position **Event data**: Producer reference, scenarios, trigger conditions
Applications	**Included** AXIS Object Analytics, AXIS Video Motion Detection, AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard, active tampering alarm, audio detection **Supported** AXIS Live Privacy Shield, AXIS Perimeter Defender Support for AXIS Camera Application Platform enabling installation of third-party applications, see *axis.com/acap*

Cybersecurity

Edge security	**Software:** Signed firmware, brute force delay protection, digest authentication, password protection, AES-XTS-Plain64 256bit SD card encryption **Hardware:** Secure boot
Network security	IEEE 802.1X (EAP-TLS)[a], HTTPS/HSTS[a], TLS v1.2/v1.3[a], Network Time Security (NTS), X.509 Certificate PKI, IP address filtering
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- and NEMA 4X-rated, IK10 impact-resistant polymer enclosure with aluminium base and intrusion alarm switch Weathershield with black anti-glare coating Color: White NCS S 1002-B
Sustainability	PVC free
Power	**Without front heater** 12–28 V DC, max 19.9 W, typical 11.1 W Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 2 Class 4, max 20.7 W, typical 11.7 W

	With disabled IR: Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3, max 12.95 W, typical 6.7 W Power redundancy
Power	**With front heater** 12–28 V DC, max 25.5 W, typical 11.1 W Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 2 Class 4, max 25.5 W, typical 11.7 W **With disabled IR:** Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3, max 25.5 W, typical 6.7 W Power redundancy
Connectors	RJ45 10BASE-T/100BASE-TX/1000BASE-T I/O: 6-pin 2.5 mm terminal block, for 2 supervised alarm inputs and 2 outputs RS485/RS422, 2 pcs, 2 pos, full duplex, terminal block DC input, terminal block 3.5 mm mic/line in, 3.5 mm line out i-CS connector (compatible with P-Iris and DC-iris)
IR illumination	OptimizedIR with power-efficient, long-life 850 nm IR LEDs Range 50 m (164 ft) or more, depending on the scene
Storage	Support for microSD/microSDHC/microSDXC card Support for SD card encryption (AES-XTS-Plain64 256bit) Support for recording to network-attached storage (NAS) For SD card and NAS recommendations see *axis.com*
Operating conditions	-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) Wind load (sustained): 55 m/s (123 mph)
Storage conditions	-40 °C to 65 °C (-40 °F to 149 °F) Humidity 5-95% RH (non-condensing)
Approvals	**EMC** EN 55032 Class A, EN 50121-4, IEC 62236-4, EN 61000-3-2, EN 61000-3-3, EN 55024, EN 61000-6-1, EN 61000-6-2, FCC Part 15 Subpart B Class A, ICES-003 Class A, VCCI Class A, RCM AS/NZS CISPR 32 Class A, KCC KN32 Class A, KN35 **Safety** IEC/EN/UL 62368-1, CAN/CSA C22.2 No. 62368-1, IEC/EN/UL 60950-22, CAN/CSA-C22.2 No. 60950-22, IEC 62471, IS 13252 **Environment** IEC/EN 60529 IP66/IP67, NEMA 250 Type 4X, NEMA TS 2 (2.2.7-2.2.9), 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 62262 IK10 **Network** NIST SP500–267
Dimensions	404 x 159 x 168 mm (15.9 x 6.3 x 6.6 in)
Weight	2.4 kg (5.3 lb)
Included accessories	Installation guide, Windows® decoder 1-user license, wall mount bracket, sunshield, connector kit IK10 tool Torx® T20 screw driver, Torx® T30 screw bit AXIS P13 Weathershield Kit A Pre-mounted AXIS Fixed Box IR Illuminator Kit A
Optional lenses	Lens CS 4-10 mm F0.9 P-Iris Lens i-CS 3.9-10 mm F1.5 8 MP Lens i-CS 9-50 mm F1.5 8 MP
Optional accessories	Axis mounts, Axis lenses, Axis midspans, Axis microphones AXIS P13 Weathershield Extension A AXIS T8355 Digital Microphone AXIS T99A10 Positioning Unit 24 V AC/DC For more accessories, see *axis.com*
Video management software	AXIS Companion, AXIS Camera Station, Video management software from Axis' Application Development Partners available at *axis.com/vms*
Languages	English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Traditional Chinese
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).*