AXIS COMMUNICATIONS

AXIS P1448-LE Network Camera
Fully-featured, all-around 4K surveillance

AXIS P1448-LE Network Camera is a cost-effective, all-around camera providing excellent image quality at full frame rate in 8 megapixel resolution and in 16:9 format. Fully-featured with Lightfinder, OptimizedIR and Forensic WDR, forensic details are captured even in challenging light conditions including low light and strong backlight. Outdoor-ready with a wide temperature range, this sturdy and impact resistant camera has shock detection and is ready for extreme temperatures. AXIS P1448-LE offers easy installation with remote zoom and focus for fine tuning of the picture. With Axis Zipstream, I/O and audio support, AXIS P1448-LE got you covered.

> **4K Ultra HD resolution in full frame rate**

> **Ease of installation**

> **Forensic WDR, Lightfinder, and OptimizedIR**

> **I/O and audio support**

> **Axis Zipstream technology**

Onvif® | **GMST**

4K NETWORK VIDEO

AXIS P1448-LE Network Camera

Camera

Image sensor	1/2.5" progressive scan RGB CMOS
Lens	2.8–9.8 mm, F1.6 Horizontal field of view 109˚–37˚ Vertical field of view 57˚–21˚ Varifocal, Remote focus and zoom, P-Iris control, IR corrected
Day and night	Automatically removable infrared-cut filter
Minimum illumination	**Color:** 0.18 lux, at 50 IRE F1.6 **B/W:** 0.04 lux, at 50 IRE F1.6 0 lux with IR illumination on
Shutter speed	1/62500 s to 2 s

System on chip (SoC)

Model	ARTPEC-6
Memory	1024 MB RAM, 512 MB Flash

Video

Video compression	H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles Motion JPEG
Resolution	3840x2160 to 160x90
Frame rate	Up to 25/30 fps (50/60 Hz) in all resolutions
Video streaming	Multiple, individually configurable streams in H.264 and Motion JPEG Axis Zipstream technology in H.264 Controllable frame rate and bandwidth VBR/ABR/MBR H.264
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, compression, orientation: auto, 0°, 90°, 180°, 270° including Corridor Format, mirroring of images, dynamic text and image overlay, privacy masks
Pan/Tilt/Zoom	Digital PTZ

Audio

Audio streaming	Audio in, simplex
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 Automatic gain control

Network

Security	Password protection, IP address filtering, HTTPS[a] encryption, IEEE 802.1X (EAP-TLS)[a] network access control, digest authentication, user access log, centralized certificate management, brute force delay protection, signed firmware
Network protocols	IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS[a], HTTP/2, TLS[a], 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, 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*
Event conditions	Analytics Detectors: live stream accessed, video motion detection, audio detection, day/night mode, shock detection, tampering Hardware: network, temperature Input Signal: digital input port, manual trigger, virtual inputs MQTT subscribe Storage: disruption, recording System: system ready Time: recurrence, use schedule

Event actions

Event actions	Record video: SD card and network share Upload of images or video 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, day/night mode MQTT publish
Data streaming	Event data
Built-in installation aids	Pixel counter, remote zoom (3.5x optical), remote focus, auto rotation

Analytics

Applications	Included AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard AXIS Video Motion Detection Supported AXIS Digital Autotracking, AXIS Perimeter Defender, AXIS Cross Line Detection 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, Axis Edge Vault with Axis device ID, signed video, secure keystore (CC EAL4+ certified hardware protection of cryptographic operations and keys)
Network security	IEEE 802.1X (EAP-TLS)[a], IEEE 802.1AR, 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-, NEMA 4X-, and IK10-rated casing Polycarbonate blend and aluminium Color: white NCS S 1002-B
Sustainability	PVC free
Power	Power over Ethernet IEEE 802.3af/802.3at Type 1 Class 3 Typical: 7.1 W, max 12.95 W
Connectors	Shielded RJ45 10BASE-T/100BASE-TX PoE 3.5 mm mic/line in I/O: 4-pin terminal block for 1 alarm input and 1 output
IR illumination	OptimizedIR with power-efficient, long-life 850 nm IR LEDs Range of reach 25 m (82 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	-40 °C to 60 °C (-40 °F to 140 °F) Maximum temperature according to NEMA TS2 (2.2.7): 74 °C (165 °F) Humidity 10–100% RH (condensing)
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 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, IEC/EN/UL 60950-22, IS 13252, IEC 62471 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 IK10, NEMA 250 Type 4X, NEMA TS 2 (2.2.7-2.2.9) **Network** NIST SP500-267
Weight	With weather shield: 1 kg (2.2 lb)
Dimensions	Ø132 x 260 mm (Ø5 3/16 x 10 1/4 in)
Included accessories	Installation guide, Windows® decoder 1-user license, drill hole template, connector kit, mounting bracket AXIS Weather Shield L
Optional accessories	AXIS T94F01M J-Box/Gang Box Plate, AXIS T91A47 Pole Mount, AXIS T94P01B Corner Bracket, AXIS T94F01P Conduit Back Box, AXIS Weather Shield K, Axis PoE Midspans

	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).*

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