AXIS P1486-LE Kit License Plate Verifier

Global shutter LPR kit for free-flow traffic

Built for free-flow traffic, this robust, all-in-one LPR kit offers a 3 MP bullet camera with AXIS License Plate Verifier preinstalled. With global shutter technology it delivers clear images of fast-moving objects with low distortion. Purpose-tuned for highly reliable license plate capture of vehicles travelling up to 130 km/h (81 mph) across two lanes, it also recognizes vehicle details under optimal conditions including type, color, make, and model. It delivers the image clarity and frame rate needed for accurate and reliable license plate recognition 24/7. What's more, it's easy to deploy and open APIs make it easy to expand your system.

- > AXIS License Plate Verifier preinstalled
- > Purpose-tuned for license plate recognition
- > Highly reliable two-lane LPR
- > Recognizes vehicle type, color, make, and model
- > Easily integrate with Axis and third-party VMSs

FIPS 140-3 Inside #5139

AXIS License Plate Verifier

Application

Compute platform
Edge

Licenses
AXIS License Plate Verifier license included.

Configuration
Web configuration included

Settings
Define area of interest in scene.
Allow-, block- and custom list logic. Each list can contain 10,000 plates with a total of 30,000.
Missing plate detection.
Barrier mode: Open to all, open to allowlisted, open to all but blocklisted.
Minimum width: 130 pixels for one-row license plates; 70 pixels for two-row license plates.
FIFO event log entries including thumbnail image of license plate. Up to 1000 entries on camera storage. Up to 100 000 entries on AXIS Surveillance Cards.
Configurable retention time of stored events

Object attributes
Vehicle data: license plate recognition, license plate type (GCC), make, model, color, country, region.
Supports 120 makes and 5,000 models with more models added over time.

Object classes
Vehicle type: bike, car, SUV, van, pick-up, truck, bus

System integration

Application Programming Interface
Open API for software integration.

Event streaming
Integrates with camera event management system to enable event streaming to management software and camera actions such as I/O control, notification, and edge storage.

Supported devices
Direct integration with Axis network door controllers and relay modules.

General

Supported countries
For a complete list of supported countries, go to the product page at *axis.com*

Languages
English

AXIS P1486-LE Kit License Plate Verifier

Camera

Image sensor
1/1.8" progressive scan RGB CMOS
Global shutter
Pixel size 3.45 µm

Lens
Varifocal, 10-40 mm, F1.3-1.4
Horizontal field of view 42°-11°
Vertical field of view 30°-6°
Minimum focus distance: 3 m (9.8 ft)
P-iris lens, IR corrected

Day and night
Automatic IR-cut filter
Hybrid IR filter

Minimum illumination
0 lux with IR illumination on
Color: 0.1 lux, at 50 IRE F1.3
B/W: 0.02 lux, at 50 IRE F1.3

Shutter speed
With Forensic WDR: 1/9500 s to 1/21 s
No WDR: 1/21500 s to 1/21 s
Binned mode: 1/200000 s to 1/4 s

License Plate Capture

Detection range
7–30 m (23–98 ft)

IR illumination
OptimizedIR with power-efficient, long-life 850 nm IR LED's with adjustable angle of illumination and intensity. Range of reach 60 m (197 ft) or more depending on the scene
Continuous and strobing IR light

Vehicle speed
Up to 130 km/h (81 mph) with edge analytics

Coverage
Two lanes with edge analytics

Installation
Mounting height: 2 m to 8 m (7 ft to 26 ft)
Camera detects tilt and roll angle automatically
Built-in licence plate capture assistant optimizes video settings based on mounting height, distance to vehicle, and expected vehicle speed

System on chip (SoC)

Model
ARTPEC-9

Memory
2 GB RAM, 8 GB 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
AV1
Motion JPEG

Resolution
16:9: 1920x1080 to 640x360
4:3: 2048x1536 to 320x240

Frame rate
With Forensic WDR: Up to 25/30 fps (50/60 Hz) in all resolutions
No WDR: Up to 50/60 fps (50/60 Hz) in all resolutions
Cropped mode: Up to 200 fps (50/60Hz), 1280x720
Binned mode: Up to 270 fps (50/60Hz), 1024x768

Video streaming
Up to 20 unique and configurable video streams[1]
Axis Zipstream technology in H.264, H.265, and AV1
Controllable frame rate and bandwidth
VBR/ABR/MBR H.264/H.265/AV1
Low latency mode
Video streaming indicator

Signal-to-noise ratio
>55 dB

1. *We recommend a maximum of 3 unique video streams per camera or channel, for optimized user experience, network bandwidth, and storage utilization. A unique video stream can be served to many video clients in the network using multicast or unicast transport method via built-in stream reuse functionality.*

WDR
Forensic WDR: Up to 120 dB depending on scene

Multi-view streaming
Up to 8 individually cropped out view areas

Image settings
Saturation, contrast, brightness, sharpness, white balance, day/night threshold, exposure mode, exposure zones, defogging, compression, split stream, orientation: auto, 0°, 90°, 180°, 270° including corridor format, mirroring of images, dynamic text and image overlay, polygon privacy masks,barrel distortion correction
Scene profiles: forensic, vivid, traffic overview, license plate capture
Electronic image stabilization

Image processing
Forensic WDR, Lightfinder 2.0, OptimizedIR

Pan/Tilt/Zoom
Digital PTZ, digital zoom

Audio

Features
Automatic gain control (AGC)
Speaker pairing, microphone pairing

Streaming
Configurable duplex:
One-way (simplex, half duplex)
Two-way (half duplex, full duplex)

Input
10-band graphic equalizer
Input for external unbalanced microphone, optional 5 V microphone power
Digital input, optional 12 V ring power
Unbalanced line input

Output
Output through network speaker pairing

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[2], HTTP/2, TLS[2], QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, PTP, 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®, metadata and AXIS Camera Application Platform (ACAP); 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*
Support for Voice over IP (VoIP) through the Session Initiation Protocol (SIP), using peer-to-peer (P2P) or Private Branch Exchange (PBX).

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
Autofocus
Image stabilization
Day/night shift
Defog
Video streaming indicator
Wide dynamic range
IR illumination
Privacy masks
Media clip

Edge-to-edge
Microphone pairing
Radar pairing
Speaker pairing
Siren and light pairing

2. *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).*

Event conditions
Application
Device status: above/below/within operating temperature, casing open, fan failure, IP address blocked/removed, live stream active, network lost, new IP address, ring power overcurrent protection, shock detected, system ready
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: digital input is active, digital output is active, manual trigger, virtual input is active
MQTT: MQTT client connected, stateless
Scheduled and recurring: schedule
Video: average bitrate degradation, day-night mode, live stream open, tampering

Event actions
Audio clips: play, stop
Day-night mode
I/O: toggle I/O once, toggle I/O while the rule is active
Illumination: use lights, use lights while the rule is active
MQTT: send MQTT publish message
Notification: HTTP, HTTPS, TCP and email
Overlay text
Recordings: record video, record video while the rule is active
SNMP trap messages: send, send while the rule is active
Images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email
WDR mode

Built-in installation aids
Pixel counter, remote zoom and focus, straighten image, traffic camera installation assistant

Analytics

Applications
Included
AXIS License Plate Verifier, AXIS Image Health Analytics, AXIS Video Motion Detection
Supported
AXIS Speed Monitor [3]
Support for AXIS Camera Application Platform enabling installation of third-party applications, see *axis.com/acap*

AXIS Image Health Analytics
Detection settings:
Tampering: blocked image, redirected image
Image degradation: blurred image, underexposed image
Other features: sensitivity, validation period

Approvals

Product markings
CE, FCC, ICES, KC, RCM, VCCI, WEEE

Supply chain
TAA compliant

EMC
CISPR 35, CISPR 32 Class A, EN 55035,
EN 55032 Class A, EN 50121-4, EN 61000-3-2,
EN 61000-3-3, 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. 62368-1 ed. 3,
IEC/EN/UL 62368-1 ed. 3, IEC/EN 62471 risk group,
IS 13252

Environment
IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6,
IEC 60068-2-14, IEC 60068-2-27,
IEC/EN 60529 IP66/IP67, IEC/EN 62262, IK10,
ISO 21207 (Method B),Type 4X,
NEMA 250 TS 2 (2.2.7-2.2.9)

Network
IPv6 USGv6, 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, Axis Cryptographic Module (FIPS 140-2 level 1)
Hardware: Axis Edge Vault cybersecurity platform
Secure keystore: 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)
Axis device ID, secure keystore, signed video, secure boot, encrypted filesystem (AES-XTS-Plain64 256bit)

3. It also requires AXIS D2110-VE Security Radar with AXIS OS 10.12 or later.

Network security
IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)[4], IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR, HTTPS/HSTS[4], TLS v1.2/v1.3[4], 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 casing
Aluminum and plastic casing
Color: white NCS S 1002-B
For repainting instructions, go to the product's support page. For information about the impact on warranty, go to *axis.com/warranty-implication-when-repainting*.

Power
Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3, max 12.95 W, typical (heater off, IR off) 4.41 W
10–28 VDC, max 13 W, typical (heater off, IR off) 4.41 W
Features: dynamic power mode, low power mode, power meter

Connectors
Network: Shielded RJ45 10BASE-T/100BASE-TX/1000BASE-T
Audio: 3.5 mm mic/line in
I/O: Terminal block for 1 supervised alarm input and 1 output (12 V DC output, max. load 25 mA)
Power: DC input
Sync out (12 V DC output, max. load 25 mA)

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
Temperature: -40 °C to 60 °C (-40 °F to 140 °F)
Maximum temperature according to NEMA TS2 (2.2.7): 74 °C (165 °F)
Start-up temperature: -40 °C
Humidity 10–100% RH (condensing)
Wind load (sustained): 60 m/s (134 mph)

Storage conditions
-40 °C to 65 °C (-40 °F to 149 °F)
Humidity 5-95% RH (non-condensing)

Dimensions
For the overall product dimensions, see the dimension drawing in this datasheet.
Effective Projected Area (EPA): 0.024 m^2 (0.26 ft^2)

Box content
Camera, weathershield, installation guide, terminal block connector, connector guard, cable gaskets, owner authentication key

System tools
AXIS Site Designer, AXIS Device Manager, product selector, accessory selector, lens calculator
Available at *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*

Software support
New feature development until 2030 (AXIS OS 12, 13 and 14)
Support until 2035-12-31 (AXIS OS LTS 2030–2035)
Read more about the AXIS OS lifecycle at *help.axis.com/axis-os*

Part numbers
Available at *axis.com/products/axis-p1486-le-kit#part-numbers*

Optional accessories

Installation
AXIS T8415 Wireless Installation Tool

4. *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).*

Mounting
AXIS T91B47 Pole Mount, AXIS T94F01P Conduit Back Box, AXIS TM4101 Pendant Kit

Storage
AXIS Surveillance Cards

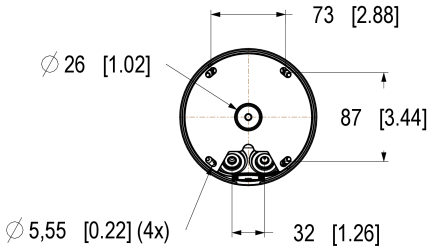
Available at *axis.com/products/axis-p1486-le-kit#part-numbers*

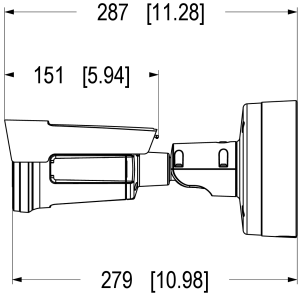
Sustainability

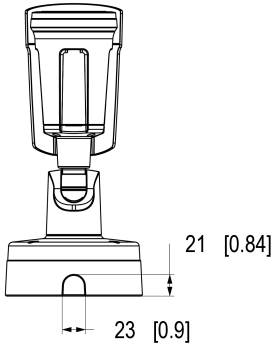
Substance control
PVC free, BFR/CFR free in accordance with JEDEC/ECA Standard JS709
RoHS in accordance with EU RoHS Directive 2011/65/EU/ and EN 63000:2018
REACH in accordance with (EC) No 1907/2006. For SCIP UUID, see *axis.com/partner.*

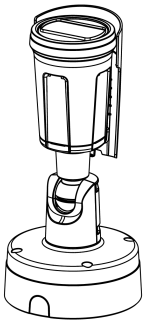
Materials
Screened for conflict minerals in accordance with OECD guidelines
To read more about sustainability at Axis, go to *axis.com/about-axis/sustainability*

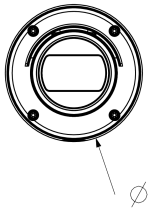
Environmental responsibility
axis.com/environmental-responsibility
Axis Communications is a signatory of the UN Global Compact, read more at *unglobalcompact.org*

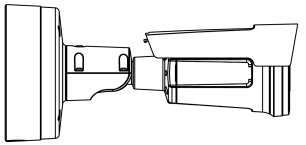


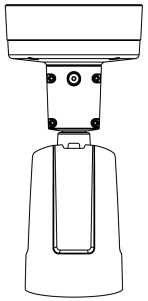












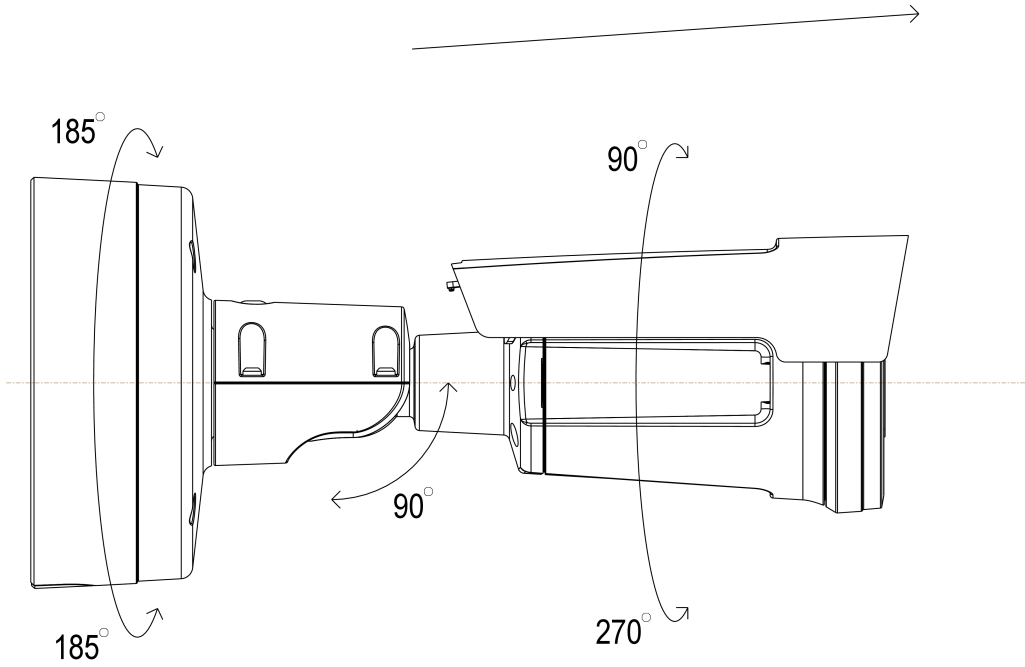
AXIS COMMUNICATIONS

AXIS P1486-LE Kit License Plate Verifier

Dimensions in mm [inch]

Date	Version	Scale
2026 Jun-04	M1.1	1:3
Drawing Number	Size	Sheet
3372458	A2	1(2)

Weather Shield sliding direction: 15.5mm [6.10]



AXIS COMMUNICATIONS

AXIS P1486-LE Kit License Plate Verifier

Dimensions in mm [inch]

Date	Version	Scale
2026 Jun-04	M1.1	1:1
Drawing Number	Size	Sheet
3372458	A2	2(2)

Axis Edge Vault

Axis Edge Vault is the hardware-based cybersecurity platform that safeguards the Axis device. It forms the foundation that all secure operations depend on and offer features to protect the device's identity, safeguard its integrity and protect sensitive information from unauthorized access. For instance, **secure boot** ensures that a device can boot only with **signed OS**, which prevents physical supply chain tampering. With signed OS, the device is also able to validate new device software before accepting to install it. And the **secure keystore** is the critical building-block for protecting cryptographic information used for secure communication (IEEE 802.1X, HTTPS, Axis device ID, access control keys etc.) against malicious extraction in the event of a security breach. The secure keystore and secure connections are provided through a Common Criteria or FIPS 140 certified hardware-based cryptographic computing module.

Furthermore, signed video ensures that video evidence can be verified as untampered. Each camera uses its unique video signing key, which is securely stored in the secure keystore, to add a signature into the video stream allowing video to be traced back to the Axis camera from where it originated.

To read more about Axis Edge Vault, go to *axis. com/ solutions/edge-vault*.

AXIS License Plate Verifier

AXIS License Plate Verifier offers real-time, AI-powered license plate recognition for a wide range of traffic applications, including vehicle access, vehicle search, and parking solutions. With an intuitive user interface, it supports event log entries with license plate thumbnail images, simplifying administration and follow-up. Moreover, our edge-based license plate recognition approach means the camera manages the processing and storage, eliminating the need for expensive servers and reducing bandwidth requirements. Finally, it's easy to set up, especially when investing in our ready-to-use, purpose-tuned kits.

Forensic WDR

Axis cameras with wide dynamic range (WDR) technology make the difference between seeing important forensic details clearly and seeing nothing but a blur in challenging light conditions. The difference between the darkest and the brightest spots can spell trouble for image usability and clarity. Forensic WDR effectively reduces visible noise and artifacts to deliver video tuned for maximal forensic usability.

Lightfinder

The Axis Lightfinder technology delivers high-resolution, full-color video with a minimum of motion blur even in near darkness. Because it strips away noise, Lightfinder makes dark areas in a scene visible and captures details in very low light. Cameras with Lightfinder discern color in low light better than the human eye. In surveillance, color may be the critical factor to identify a person, an object, or a vehicle.

OptimizedIR

Axis OptimizedIR provides a unique and powerful combination of camera intelligence and sophisticated LED technology, resulting in our most advanced camera-integrated IR solutions for complete darkness. In our pan-tilt-zoom (PTZ) cameras with OptimizedIR, the IR beam automatically adapts and becomes wider or narrower as the camera zooms in and out to make sure that the entire field of view is always evenly illuminated.

Zipstream

The Axis Zipstream technology preserves all the important forensic in the video stream while lowering bandwidth and storage requirements by an average of 50%. Zipstream also includes three intelligent algorithms, which ensure that relevant forensic information is identified, recorded, and sent in full resolution and frame rate.