AXIS P3285-LVE Kit License Plate Verifier

LPR dome camera kit for slow speed traffic

Built for slow-speed traffic, this all-in-one LPR kit features a 2 MP dome camera with AXIS License Plate Verifier preinstalled. It is purpose-tuned for close-up license plate capture and recognizes vehicle details - including type, color, make, and model - under optimal conditions. You can easily manage allow and block lists directly on the camera. Axis imaging technologies ensure sharp, high-contrast images and license plate readability 24/7 in any light conditions. It supports vehicle access control, from simple entry and exit to advanced access control. Furthermore, its open APIs ensure it seamlessly integrates with your existing VMS and third-party platforms.

- > AXIS License Plate Verifier preinstalled
- > Purpose-tuned for license plate recognition
- > Recognizes vehicle type, color, make, and model
- > Discreet, vandal- and weather-resistant
- > Supports access control applications

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 P3285-LVE Kit License Plate Verifier

Camera

Image sensor
1/2.8" progressive scan RGB CMOS
Pixel size 2.9 µm

Lens
Varifocal, 3.4–9.8 mm, F1.4–2.7
Horizontal field of view: 100°–32°
Vertical field of view: 52°–18°
Minimum focus distance: 1 m (3.28 ft)

Day and night
Automatic IR-cut filter

Minimum illumination
Color: 0.08 lux at 50 IRE, F1.4
B/W: 0.02 lux at 50 IRE, F1.4
0 lux with IR illumination on

Shutter speed
1/37000 s to 2 s

Camera adjustment
Pan ±190°, tilt -45 to +80°, rotation ±95°

License Plate Capture

Detection range
2–7 m (7–23 ft)

IR illumination
OptimizedIR with power-efficient, long-life 850 nm IR LED's with adjustable angle of illumination and intensity. Range of reach 20 m (66 ft) or more depending on the scene

Vehicle speed
Up to 30 km/h (19 mph) with edge analytics

Coverage
Single lane with edge analytics

Installation
Mounting height: Up to 2 m (7 ft)
Distance from road: Up to 2 m (7 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
16:10:1280x800
4:3: 1440x1080

Frame rate
Up to 50/60 fps (50/60 Hz) in all resolutions

Video streaming
Up to 20 unique and configurable video streams[1]
Axis Zipstream technology in AV1, H.264 and H.265
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 7 individually cropped out view areas

Noise reduction
Spatial filter (2D noise reduction)
Temporal filter (3D noise reduction)

Image settings
Saturation, contrast, brightness, sharpness, white balance, day/night threshold, local contrast, tone mapping, exposure mode, exposure zones, defog, barrel distortion correction, compression, rotation: 0°, 90°, 180°, 270° including corridor format, mirroring, dynamic text and image overlay, overlay widget, privacy masks, target aperture

Image processing
Axis Zipstream, Forensic WDR, Lightfinder 2.0, OptimizedIR

Pan/Tilt/Zoom
Digital PTZ, preset positions
Guard tour, control queue

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, specifications at *onvif.org*

Video management systems
Compatible with AXIS Camera Station Edge, AXIS Camera Station Pro, and video management software from Axis' partners available at *axis.com/vms*.

Onscreen controls
Autofocus
Day/night shift
Defog
Wide dynamic range
Video streaming indicator
IR illumination
Privacy masks
Media clip
Heater

Event conditions
Application
Device status: above/below/within operating temperature, casing open, IP address blocked/removed, live stream active, network lost, new IP address, system ready
Edge storage: recording ongoing, storage disruption, storage health issues detected
I/O: digital input, manual trigger, virtual input
MQTT: stateless
Scheduled and recurring: schedule
Video: average bitrate degradation, day-night mode, tampering

Event actions
Day-night mode
Defog: Set Defog mode, set Defog mode while the rule is active
I/O: toggle I/O once, toggle I/O while the rule is active
Illumination: use lights, use lights while the rule is active
LEDs: flash status LED, flash status LED while the rule is active
MQTT: publish
Notification: HTTP, HTTPS, TCP and email
Overlay text
Recordings: SD card and network share
Security: erase configuration
SNMP traps: 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, level grid

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).*

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
UL/cUL, CE, KC, EAC, VCCI, RCM, ICES, UKCA, FCC

Supply chain
TAA compliant

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(A)/NMB(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 exempt

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

Network
NIST SP500-267, IPv6 USGv6

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 Client Credential Flow/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+, FIPS 140-3 Level 3), system-on-chip security (TEE)
Axis device ID, signed video, secure boot, encrypted filesystem (AES-XTS-Plain64 256bit)

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
Polycarbonate hard-coated dome
Plastic casing and weathershield
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*.
This product can be repainted.

Mounting
Mounting bracket with junction box holes (double-gang, single-gang, and 4" octagon)

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

Power
Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1
Class 3, max 10 W, typical (heater off, IR off) 3.4 W
Features: dynamic power mode, power meter

Environmental sensors
Environmental sensors through portcast technology accessories. For more information, see *Optional accessories*.

I/O functionality
I/O: Terminal block for one configurable supervised input/digital output (12 V DC output, max load 25 mA)

Connectors
Network: RJ45 10BASE-T/100BASE-TX PoE
I/O: 4-pin 2.5 mm terminal block for 1 alarm input and 1 output

Sensor
Acoustic sensor

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 50 °C (-40 °F to 122 °F)
Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F)
Start-up temperature: -30 °C (-22 °F)
Humidity: 10–100% RH (condensing)

Storage conditions
Temperature: -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): 0.023 m^2 (0.075 ft^2)

Weight
850 g (1.9 lb)

Box content
Camera, weathershield, installation guide, terminal block connector, connector guard, cable gasket, 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*

Part numbers
Available at *axis.com/products/axis-p3285-lve-kit#part-numbers*

Optional accessories

Installation
AXIS T8415 Wireless Installation Tool

Mounting
AXIS TP3206-E Recessed Mount, AXIS TP3103-E Pendant Kit

Storage
AXIS Surveillance Cards

For more accessories, go to *axis.com/products/axis-p3285-lve-kit#accessories*

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 2015/863, and standard EN IEC 63000:2018
REACH in accordance with (EC) No 1907/2006. For SCIP UUID, see *echa.europa.eu*

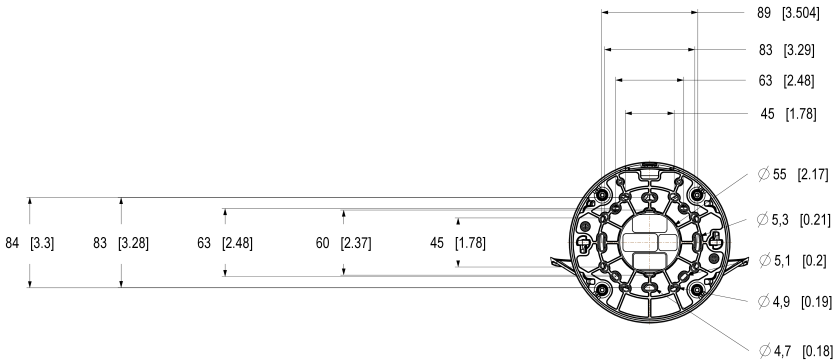
Materials
Renewable carbon-based plastic content: 45% (bio-based: 43%, carbon capture based: 2%)
Screened for conflict minerals in accordance with OECD guidelines
To read more about sustainability at Axis, go to *axis.com/about-axis/sustainability*

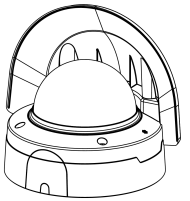
Environmental responsibility
axis.com/environmental-responsibility
Axis Communications is a signatory of the UN Global Compact, read more at *unglobalcompact.org*

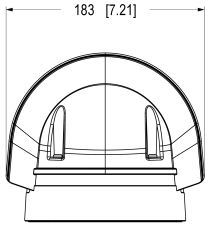
Detect, Observe, Recognize, Identify (DORI)

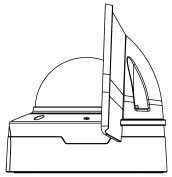
	DORI definition	Distance (wide)	Distance (tele)
Detect	25 px/m (8 px/ft)	48 m (157 ft)	135 m (443 ft)
Observe	63 px/m (19 px/ft)	19 m (62 ft)	54 m (177 ft)
Recognize	125 px/m (38 px/ft)	9.6 m (31.5 ft)	27 m (89 ft)
Identify	250 px/m (76 px/ft)	4.8 m (15.7 ft)	14 m (46 ft)

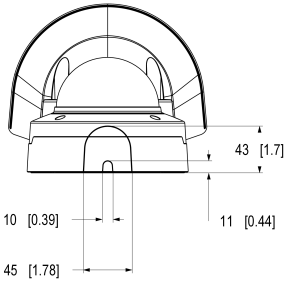
The DORI values are calculated using pixel densities for different use cases as recommended by the EN-62676-4 standard. The calculations use the center of the image as the reference point and consider lens distortion. The possibility to recognize or identify a person or object depends on factors such as object motion, video compression, lighting conditions, and camera focus. Use margins when planning. The pixel density varies across the image, and the calculated values can differ from the distances in the real world.

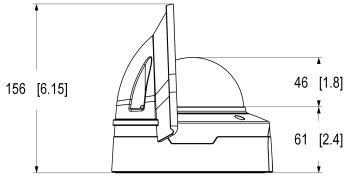


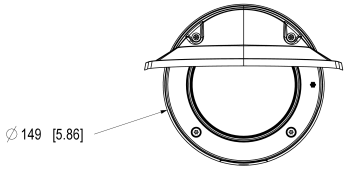












P3285-LVE Kit License Plate Verifier

Dimensions in mm [inch]

Date	Version	Scale
2026 Jun-04	M1.2	1:2
Drawing Number	Size	Sheet
3260771	A1	1(1)

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.

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.