

AXIS M3098-LV Dome Camera

AI-powered 8 MP mini dome with IR

This AI-powered mini dome offers a wide field of view and great image quality in all light conditions. Built-in IR illumination enables surveillance in total darkness. It comes with AXIS Object Analytics and with an acoustic sensor and AXIS Audio Analytics, you'll be notified whenever something relevant happens, even when there's no visual indication. It offers flexible and discreet installation on walls and ceilings. Selected markets feature direct installation view in AXIS Installer app. Furthermore, Axis Edge Vault safeguards the device and offers FIPS 140-3 Level 3 certified secure key storage and operations.

- > [Great image quality in 8 MP](#)
- > [Compact, discreet design](#)
- > [Forensic WDR, Lightfinder, OptimizedIR](#)
- > [AI-powered audio and video analytics](#)
- > [Built-in cybersecurity with Axis Edge Vault](#)



AXIS M3098-LV Dome Camera

Camera

Image sensor

1/1.8" progressive scan RGB CMOS
Pixel size 2.0 µm

Lens

3.76 mm, F2.0
Horizontal field of view: 124°
Vertical field of view: 66°
M12 mount, fixed iris, IR corrected

Day and night

Automatic IR-cut filter
Hybrid IR filter

Minimum illumination

Color: 0.19 lux at 50 IRE, F2.0
B/W: 0.05 lux at 50 IRE, F2.0
0 lux with IR illumination on

Shutter speed

1/66000 s to 1/5 s

Camera adjustment

Pan $\pm 175^\circ$, tilt (corridor format) $+30^\circ$ to -10° , tilt (landscape format) $+57^\circ$ to -10° , rotation $\pm 175^\circ$

System on chip (SoC)

Model

CV75

Memory

2 GB RAM, 8 GB Flash

Compute capabilities

Deep learning processing unit (DLPU)

Video

Video compression

H.264 (MPEG-4 Part 10/AVC) Main and High Profiles
H.265 (MPEG-H Part 2/HEVC) Main Profile
Motion JPEG

Resolution

16:9: 3840x2160 to 640x360
4:3: 1440x1080 to 320x240

Frame rate

Up to 12/15 fps (50/60 Hz) with H.264 and H.265¹ in all resolutions in 8 MP mode
Up to 25/30 fps (50/60 Hz) with H.264 and H.265¹ in all resolutions in 4 MP mode

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

WDR

Forensic WDR: Up to 120 dB depending on scene

Multi-view streaming

2 individually cropped out view areas

Image settings

Saturation, contrast, brightness, sharpness, white balance, day/night threshold, local contrast, tone mapping, exposure mode, exposure zones, compression, rotation: 0°, 90°, 180°, 270° including corridor format, mirroring, dynamic text and image overlay, privacy masks
Scene profiles: forensic, vivid

Image processing

Axis Zipstream, Forensic WDR, Lightfinder, OptimizedIR

Pan/Tilt/Zoom

Digital PTZ

Network

Network protocols

IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS², HTTP/2, TLS², QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP[®], SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, NTS, PTP, RTSP, RTP, SRTP/RTSPS, TCP, UDP, IGMPv1/v2/v3, RTCP, ICMP, DHCPv4/v6, SSH, LLDP, CDP, MQTT v3.1.1, Secure syslog (RFC 3164/5424, UDP/TCP/TLS), Link-Local address (ZeroConf)

1. Reduced frame rate in Motion JPEG

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).

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, AXIS Camera Station 5, and video management software from Axis' partners available at axis.com/vms.

Onscreen controls

Day/night shift

Wide dynamic range

Privacy masks

IR illumination

Edge-to-edge

Siren and light pairing

Event conditions

Application

Audio analytics: audio level above threshold, coughing fit detected, glass break detected, scream detected, shout detected, speech detected, SPL: Above threshold upper, SPL: Below threshold lower

Device status: above/below/within operating temperature, Audit logs, 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: manual trigger, virtual input is active

MQTT: MQTT client connected

Scheduled and recurring: schedule

Video: average bitrate degradation, day-night mode, tampering

Event actions

Day-night mode

Illumination: use lights, use lights while the rule is active

LEDs: flash status LED, flash status LED 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

Security: erase configuration

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, level grid

Analytics

Applications

Included

AXIS Object Analytics, AXIS Image Health Analytics, AXIS Audio Analytics, AXIS Scene Metadata, AXIS Live Privacy Shield³, AXIS Video Motion Detection

Supported

Support for AXIS Camera Application Platform enabling installation of third-party applications, see axis.com/acap

AXIS Object Analytics

Object classes: humans, vehicles (types: cars, buses, trucks, bikes, other)

Scenarios: line crossing, object in area, time in area, crossline counting, occupancy in area, tailgating detection, PPE monitoring^{BETA}, motion in area, motion line crossing

Up to 10 scenarios

Other features: triggered objects visualized with color-coded bounding boxes

Polygon include/exclude areas

Perspective configuration

ONVIF Motion Alarm event

AXIS Image Health Analytics

Detection settings:

Tampering: blocked image, redirected image

Image degradation: blurred image, underexposed image

Other features: sensitivity, validation period

3. Available for download

AXIS Audio Analytics

Features: sound pressure level, adaptive audio detection, audio classification

Audio classes: scream, shout, glass break, speech, coughing fit

Event metadata: audio detections, classifications, sound pressure level

AXIS Scene Metadata

Object classes: humans, faces, vehicles (types: cars, buses, trucks, bikes), license plates

Object attributes: vehicle color, upper/lower clothing color, bag, confidence, position

Approvals

Product markings

CE, FCC, ICES, UL, RCM⁴, BSMI⁴, KC⁴, NCC⁴, TELEC⁴, VCCI⁴

Supply chain

TAA compliant

EMC

CISPR 35, CISPR 32 Class B, EN 55035,

EN 55032 Class B, EN 61000-6-1, EN 61000-6-2

Australia/New Zealand: RCM AS/NZS CISPR 32 Class B⁴

Canada: ICES(B)/NMB(B)

Japan: VCCI Class B⁴

Korea: KS C 9835⁴, KS C 9832 Class B⁴

USA: FCC Part 15 Subpart B Class B

Safety

CAN/CSA C22.2 No. 62368-1 ed. 3,

IEC/EN/UL 62368-1 ed. 3, IEC/EN 62471 risk group exempt, NOM-001⁵

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 IP42, IEC/EN 62262 IK08

Wireless

EN 62311⁴, EN 300328⁴, EN 301489-1⁴,

EN 301489-17⁴, FCC Part 15 Subpart C⁴,

FCC Part 2 Subpart J⁴, MIC⁴, NCC⁴, RSS-102⁴, RSS-247⁴,

RSS-Gen⁴

Network

NIST SP500-267

Cybersecurity

ETSI EN 303 645, BSI IT Security Label, FIPS 140, EN 18031-1⁴

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)⁶,

IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR, HTTPS/HSTS⁶, TLS v1.2/v1.3⁶, 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

IP42- and IK08-rated

Polycarbonate hard-coated dome

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 5.9 W, typical (heater off, IR off) 3.4 W

Features: dynamic power mode, power meter

4. Not valid for ROW variants

5. Only valid for ROW variants

6. 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).

Wireless interface

Bluetooth® 5.4 Low Energy⁷ 8

Bluetooth profiles: none⁸

Features: direct installation view through AXIS Installer mobile app⁸

Environmental sensors

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

Connectors

Network: RJ45 10BASE-T/100BASE-TX/1000BASE-T PoE

Sensor

Acoustic sensor

IR illumination

Optimized IR with power-efficient, long-life 850 nm IR LEDs

Range of reach 15 m (49 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

Temperature: 0 °C to 45 °C (32 °F to 113 °F)

Humidity: 10–85% RH (non-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.

Weight

206 g (0.45 lb)

Box content

Camera, installation guide, owner authentication key

System tools

AXIS Site Designer, AXIS Device Manager, AXIS Installer, 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-m3098-lv#part-numbers*

Optional accessories

Portcast

AXIS D6210 Air Quality Sensor

Installation

AXIS T8415 Wireless Installation Tool

Mounting

AXIS TM3401 Grid Ceiling Mount, AXIS TM3101

Pendant Wall Mount, AXIS T91 Mounting Accessories,

AXIS T94 Mounting Accessories

Storage

AXIS Surveillance Cards

Smoked dome

For more accessories, go to *axis.com/products/axis-m3098-lv#compatible-products*

7. The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Axis Communications AB is under license. Other trademarks and trade names are those of their respective owners.

8. Not valid for ROW variants

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: 64%
(recycled: 24%, bio-based: 36%, carbon capture based: 4%)

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
Detect	25 px/m (8 px/ft)	75 m (250 ft)
Observe	63 px/m (19 px/ft)	30 m (98 ft)
Recognize	125 px/m (38 px/ft)	15 m (49 ft)
Identify	250 px/m (76 px/ft)	8 m (30 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.

Highlighted capabilities

AXIS Audio Analytics

AXIS Audio Analytics uses adaptive audio detection to generate alarms on sudden increases in sound volume. With AI-based classifiers, it can detect screaming and shouting. You can also get extra confirmation by combining AXIS Audio Analytics with video analytics. This smart application only transmits metadata, ensuring privacy is safeguarded. A core feature of AXIS OS, AXIS Audio Analytics comes preinstalled at no extra cost.

AXIS Object Analytics

AXIS Object Analytics is a preinstalled, multifeatured video analytics that detects and classifies humans, vehicles, and types of vehicles. Thanks to AI-based algorithms and behavioral conditions, it analyzes the scene and their spatial behavior within – all tailored to your specific needs. Scalable and edge-based, it requires minimum effort to set up and supports various scenarios running simultaneously.

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.

Direct installation view

Direct installation view is a camera feature that enables fast setup using Bluetooth® technology to view the camera stream in real time during the installation phase.

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.

For more information, see axis.com/glossary