AXIS M3216-LVE Dome Camera

Affordable surveillance in 4 MP with deep learning

This cost-effective fixed focal dome offers Lightfinder, Forensic WDR, and OptimizedIR, and ensures excellent image quality under any light conditions. Built on ARTPEC-8, it includes a deep learning processing unit enabling powerful analytics based on deep learning on the edge. Plus, it delivers valuable metadata facilitating fast, easy, and efficient forensic search capabilities. And AXIS Object Analytics offers detection and classification of humans, vehicles, and types of vehicles—all tailored to your specific needs. Featuring audio and I/O connectivity, you can integrate for instance a microphone to extend the value of your system. Furthermore, built-in cybersecurity features safeguard your system.

> **Excellent image quality in 4 MP**
> **Lightfinder, Forensic WDR, OptimizedIR**
> **Analytics with deep learning**
> **Audio and I/O connectivity**
> **Built-in cybersecurity features**

ONVIF® | GMST

AXIS M3216-LVE Dome Camera

Camera

Image sensor
1/2.7" progressive scan RGB CMOS

Lens
2.9 mm, F2.0
Horizontal field of view: 102°
Vertical field of view: 73°
Minimum focus distance: 1.0 m (3.3 ft)
Fixed iris, IR corrected

Day and night
Automatic IR-cut filter
Hybrid IR filter

Minimum illumination
With WDR and Lightfinder:
Color: 0.16 lux at 50 IRE, F2.0
B/W: 0 lux at 50 IRE, F2.0
0 lux with IR illumination on

Shutter speed
1/50000 s to 1/5 s

Camera adjustment
Pan ±190°, tilt -10 to +80°, rotation ±190°

System on chip (SoC)

Model
ARTPEC-8

Memory
1024 MB RAM, 8192 MB 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
Motion JPEG

Resolution
16:9: 2688x1512 to 160x90
4:3: 2304x1728 to 160x120

Frame rate
Up to 30/25 fps (60/50 Hz) in all resolutions

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

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, local contrast, tone mapping,
exposure mode, exposure zones, defogging, barrel
distortion correction, compression, rotation: 0°, 90°,
180°, 270° including Corridor Format, mirroring,
dynamic text and image overlay, polygon privacy mask

Pan/Tilt/Zoom
Digital PTZ

Audio

Audio streaming
Two-way audio via edge-to-edge technology

Audio encoding
AAC 8/16/32/44.1/48 kHz, G.711 8 kHz, G.726 8 kHz,
Opus 8/16/48 kHz, LPCM 48 kHz
Configurable bit rate

Audio input/output
External microphone input or line input, ring power,
digital audio input, automatic gain control
Network speaker pairing

Network

Network protocols
IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS[1], HTTP/2, TLS[1], QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, RTSP, RTCP, RTP, SRTP/RTSPS, TCP, UDP, IGMPv1/v2/v3, DHCPv4/v6, ARP, SOCKS, SSH, SIP, 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*
One-click cloud connection
ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specification at *onvif.org*
Support for Session Initiation Protocol (SIP) for integration with Voice over IP (VoIP) systems, peer to peer or integrated with SIP/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
Day/night shift
Defogging
Wide dynamic range
Video streaming indicator
IR illumination
Enable-disable all privacy masks
Play media clip

Event conditions
Analytics, external input, supervised external input, virtual inputs through API
Digital audio: digital signal contains Axis metadata, digital signal has invalid sample rate, digital signal missing, digital signal okay
I/O: digital input, manual trigger, virtual input
Device status: above operating temperature, above or below operating temperature, below operating temperature, within operating temperature, IP address removed, new IP address, network lost, system ready, ring power overcurrent protection, live stream active, casing open
Call: state, state change
Video: average bitrate degradation, day-night mode, live stream open, tampering
Audio: audio detection, audio clip playing, audio clip currently playing
Edge storage: recording ongoing, storage disruption, storage health issues detected
Scheduled and recurring: schedule
MQTT: stateless

Event actions
Overlay text, day/night mode, flash status LED, use lights, set defog mode, set WDR mode
I/O: toggle I/O once, toggle I/O while the rule is active
MQTT: publish
Notification: HTTP, HTTPS, TCP and email
Audio clips: play, stop
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
Calls: answer call, end SIP call, make SIP call
SNMP traps: send, send while the rule is active

Data streaming
Event data

Built-in installation aids
Pixel counter, straighten image, level grid

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1. *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 Object Analytics, AXIS Scene Metadata,
AXIS Image Health Analytics, AXIS Video Motion
Detection, active tampering alarm, audio detection
AXIS Live Privacy Shield
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)
Scenarios: line crossing, object in area, crossline
counting, occupancy in area, time in area
Up to 10 scenarios
Other features: triggered objects visualized with
trajectories, color-coded bounding boxes and tables
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

AXIS Scene Metadata
Object classes: humans, faces, vehicles (types: cars,
buses, trucks, bikes), license plates
Object attributes: vehicle color, upper/lower clothing
color, confidence, position

Approvals

EMC
EN 55032 Class A, 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: KC KN35KC, KN32 Class A
USA: FCC Part 15 Subpart B Class A

Safety
IEC/EN/UL 62368-1, IEC/EN/UL 60950-22, IEC 62471
risk group exempt, IS 13252

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, IEC/EN 62262 IK10, NEMA 250
Type 4X, NEMA TS 2 (2.2.7-2.2.9)

Network
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 element (CC EAL 6+), system-on-chip security
(TEE), Axis device ID, secure keystore, signed video,
secure boot, encrypted filesystem (AES-XTS-Plain64
256bit)

Network security
IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)[2],
IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR,
HTTPS/HSTS[2], TLS v1.2/v1.3[2], 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-, NEMA 4X- and IK10-rated
Polycarbonate hard-coated dome
Plastic casing, sunshield (PC/ASA)
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.

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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).*

Mounting
Mounting bracket with junction box holes (double-gang, single-gang, and 4" octagon) and for wall or ceiling mount
½" (M20) or ¾" (M25) conduit side entry, with conduit adapter

Power
Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3
Typical 4.8 W, max 10.8 W

Connectors
Network: Shielded RJ45 10BASE-T/100BASE-TX PoE
I/O: 4-pin 2.5 mm (0.098 in) terminal block for 1 supervised digital input and 1 digital output (12 V DC output, max. load 25 mA)
Audio: 3.5 mm mic/line in

IR illumination
OptimizedIR with power-efficient, long-life 850 nm IR LEDs
Range of reach 30 m (98 ft) or more depending on the scene

Storage
Support for microSD/microSDHC/microSDXC card and encryption
Recording to network-attached storage (NAS)
For SD card and NAS recommendations see *axis.com*

Operating conditions
-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 to 50 °C (-22 °F to 122 °F)
Humidity 10–100% RH (condensing)

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

Dimensions
Without weathershield:
Height: 102 mm (4.0 in)
ø 149 mm (5.9 in)

Weight
With weathershield:
791 g (1.74 lb)

Included accessories
Installation guide, Windows® decoder 1-user license, drill hole template, RESISTORX® TR20 bit, terminal block connector, cable gaskets, connector guard, weathershield

Optional accessories
AXIS TP3823-E Weathershield Black
AXIS TP3821-E Casing Black
AXIS TM3815-E Dome Smoked
AXIS Surveillance Cards
For more accessories, see *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*

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 *echa.europa.eu*

Materials
Renewable carbon-based plastic content: 12% (bio-based)
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*

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