# AXIS M3215-LVE Dome Camera
## Affordable surveillance in 2 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 2 MP**

> **Lightfinder, Forensic WDR, OptimizedIR**

> **Analytics with deep learning**

> **Audio and I/O connectivity**

> **Built-in cybersecurity features**

# AXIS M3215-LVE Dome Camera

## Camera

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|---|---|
| **Image sensor** | 1/2.9" progressive scan RGB CMOS |
| **Lens** | 3.1 mm, F2.0<br>Horizontal field of view: 101°<br>Vertical field of view: 55°<br>Minimum focus distance: 1.0 m (3.3 ft)<br>Fixed iris, IR corrected |
| **Day and night** | Automatic IR-cut filter<br>Hybrid IR filter |
| **Minimum illumination** | With WDR and Lightfinder:<br>Color: 0.14 lux at 50 IRE, F2.0<br>B/W: 0 lux at 50 IRE, F2.0<br>0 lux with IR illumination on |
| **Shutter speed** | 1/37000 s to 2 s |
| **Camera adjustment** | Pan ±190°, tilt -10 to +80°, rotation ±190° |

## System on chip (SoC)

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| **Model** | ARTPEC-8 |
| **Memory** | 1024 MB RAM, 8192 MB Flash |
| **Compute capabilities** | Deep learning processing unit (DLPU) |

## Video

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| **Video compression** | H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles<br>H.265 (MPEG-H Part 2/HEVC) Main Profile<br>Motion JPEG |
| **Resolution** | 16:9: 1920x1080 to 160x90 |
| **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<br>Axis Zipstream technology in H.264 and H.265<br>Controllable frame rate and bandwidth<br>VBR/ABR/MBR H.264/H.265<br>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

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| **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<br>Configurable bit rate |
| **Audio input/output** | External microphone input or line input, ring power, digital audio input, automatic gain control<br>Network speaker pairing |

## Network

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| **Network protocols** | IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS, HTTP/2, TLS, 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

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| **Application Programming Interface** | Open API for software integration, including VAPIX® and AXIS Camera Application Platform; specifications at *axis.com*<br>One-click cloud connection<br>ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specification at *onvif.org*<br>Support for Session Initiation Protocol (SIP) for integration with Voice over IP (VoIP) systems, peer to peer or integrated with SIP/PBX. |

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| **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<br>Defogging<br>Wide dynamic range<br>Video streaming indicator<br>IR illumination<br>Enable-disable all privacy masks<br>Play media clip |
| **Event conditions** | Analytics, external input, supervised external input, virtual inputs through API<br>Digital audio: digital signal contains Axis metadata, digital signal has invalid sample rate, digital signal missing, digital signal okay<br>I/O: digital input, manual trigger, virtual input<br>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<br>Call: state, state change<br>Video: average bitrate degradation, day-night mode, live stream open, tampering<br>Audio: audio detection, audio clip playing, audio clip currently playing<br>Edge storage: recording ongoing, storage disruption, storage health issues detected<br>Scheduled and recurring: schedule<br>MQTT: stateless |
| **Event actions** | Overlay text, day/night mode, flash status LED, use lights, set defog mode, set WDR mode<br>I/O: toggle I/O once, toggle I/O while the rule is active<br>MQTT: publish<br>Notification: HTTP, HTTPS, TCP and email<br>Audio clips: play, stop<br>Record video: SD card and network share<br>Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email<br>Pre- and post-alarm video or image buffering for recording or upload<br>Calls: answer call, end SIP call, make SIP call<br>SNMP traps: send, send while the rule is active |
| **Data streaming** | Event data |
| **Built-in installation aids** | Pixel counter, straighten image, level grid |

## Analytics

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| **Applications** | **Included**<br>AXIS Object Analytics, AXIS Scene Metadata, AXIS Image Health Analytics, AXIS Video Motion Detection, active tampering alarm, audio detection<br>AXIS Live Privacy Shield<br>**Supported**<br>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)<br>**Scenarios:** line crossing, object in area, crossline counting, occupancy in area, time in area<br>Up to 10 scenarios<br>**Other features:** triggered objects visualized with trajectories, color-coded bounding boxes and tables<br>Polygon include/exclude areas<br>Perspective configuration<br>ONVIF Motion Alarm event |
| **AXIS Image Health Analytics** | **Detection settings:**<br>Tampering: blocked image, redirected image<br>Image degradation: blurred image, underexposed image<br>**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

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| EMC | EN 55032 Class A, EN 61000-6-1, EN 61000-6-2<br>**Australia/New Zealand:** RCM AS/NZS CISPR 32 Class A<br>**Canada:** ICES-3(A)/NMB-3(A)<br>**Japan:** VCCI Class A<br>**Korea:** KC KN35KC, KN32 Class A<br>**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 |

## Cybersecurity

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| 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<br>**Hardware:** Axis Edge Vault cybersecurity platform<br>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), IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR, HTTPS/HSTS, TLS v1.2/v1.3, Network Time Security (NTS), X.509 Certificate PKI, host-based firewall |
| Documentation | *AXIS OS Hardening Guide*<br>*Axis Vulnerability Management Policy*<br>*Axis Security Development Model*<br>AXIS OS Software Bill of Material (SBOM)<br>To download documents, go to *axis.com/support/cybersecurity/resources*<br>To read more about Axis cybersecurity support, go to *axis.com/cybersecurity* |

## General

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| Casing | IP66-, NEMA 4X- and IK10-rated<br>Polycarbonate hard-coated dome<br>Plastic casing, sunshield (PC/ASA)<br>Color: white NCS S 1002-B<br>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.*<br>This product can be repainted. |
| 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<br>Typical 4.8 W, max 10.4 W |

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| Connectors | Network: Shielded RJ45 10BASE-T/100BASE-TX PoE<br>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)<br>Audio: 3.5 mm mic/line in |
| IR illumination | OptimizedIR with power-efficient, long-life 850 nm IR LEDs<br>Range of reach 30 m (98 ft) or more depending on the scene |
| Storage | Support for microSD/microSDHC/microSDXC card and encryption<br>Recording to network-attached storage (NAS)<br>For SD card and NAS recommendations see *axis.com* |
| Operating conditions | -40 °C to 50 °C (-40 °F to 122 °F)<br>Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F)<br>Start-up temperature: -30 °C to 50 °C (-22 °F to 122 °F)<br>Humidity 10-100% RH (condensing) |
| Storage conditions | -40 °C to 65 °C (-40 °F to 149 °F)<br>Humidity 5-95% RH (non-condensing) |
| Dimensions | **Without weathershield:**<br>Height: 102 mm (4.0 in)<br>ø 149 mm (5.9 in) |
| Weight | **With weathershield:**<br>783 g (1.73 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<br>AXIS TP3821-E Casing Black<br>AXIS TM3815-E Dome Smoked<br>AXIS Surveillance Cards<br>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

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| Substance control | PVC free, BFR/CFR free in accordance with JEDEC/ECA Standard JS709<br>RoHS in accordance with EU RoHS Directive 2011/65/EU/ and EN 63000:2018<br>REACH in accordance with (EC) No 1907/2006. For SCIP UUID, see *echa.europa.eu* |
| Materials | Renewable carbon-based plastic content: 12% (bio-based)<br>Screened for conflict minerals in accordance with OECD guidelines<br>To read more about sustainability at Axis, go to *axis.com/about-axis/sustainability* |
| Environmental responsibility | *axis.com/environmental-responsibility*<br>Axis Communications is a signatory of the UN Global Compact, read more at *unglobalcompact.org* |

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