

# AXIS P3248-LVE Network Camera

Streamlined 4K outdoor-ready dome for any light

AXIS P3248-LVE offers excellent image quality in brilliant 4K resolution. This IK10-rated outdoor-ready camera features Axis Lightfinder 2.0 and Axis Forensic WDR for true colors and great detail in challenging light or near darkness. It includes OptimizedIR for surveillance in complete darkness and motion-adaptive exposure significantly reduces motion blur from approaching or nearby objects. AXIS Object Analytics lets you detect and classify humans and vehicles. And, thanks to two-way audio and I/O connectivity, you can add audio analytics and integrate peripheral equipment. Furthermore, Axis Edge Vault protects your Axis device ID and simplifies authorization of Axis products on your network.

- > **4K resolution at 30 fps**
- > **Lightfinder 2.0 and Motion-adaptive exposure**
- > **Zipstream supporting H.264 and H.265**
- > **AXIS Object Analytics**
- > **Enhanced security features**



# AXIS P3248-LVE Network Camera

| Camera                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Event conditions           | Analytics, external input, supervision of input, edge storage events, virtual inputs through API<br>MQTT subscribe                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Image sensor                      | 1/1.8" progressive scan RGB CMOS                                                                                                                                                                                                                                                                                                                                                                                                                                               | Event actions              | 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>Notification: email, HTTP, HTTPS, TCP, and SNMP trap<br>MQTT publish<br>Overlay text, external output activation, play audio clip, make call                                                                                    |
| Lens                              | Varifocal, 4.3–8.6 mm, F1.5<br>Horizontal field of view: 100°–53°<br>Vertical field of view: 54°–30°<br>Remote zoom and focus, P-Iris control, IR corrected                                                                                                                                                                                                                                                                                                                    | Built-in installation aids | Pixel counter, remote focus, remote zoom<br>OptimizedIR with adjustable IR illumination intensity                                                                                                                                                                                                                                                                                                                                       |
| Day and night                     | Automatically removable infrared-cut filter                                                                                                                                                                                                                                                                                                                                                                                                                                    | Analytics                  |                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Minimum illumination              | With Forensic WDR and Lightfinder 2.0:<br>Color: 0.14 lux at 50 IRE, F1.5<br>B/W: 0 lux at 50 IRE, F1.5                                                                                                                                                                                                                                                                                                                                                                        | AXIS Object Analytics      | Object classes: humans, vehicles<br>Features: line crossing, object in area, crossline counting <sup>BETA</sup> , time in area <sup>BETA</sup><br>Up to 10 scenarios<br>Metadata visualized with trajectories, color-coded bounding boxes and tables<br>Polygon include/exclude areas<br>Perspective configuration<br>ONVIF Motion Alarm event                                                                                          |
| Shutter speed                     | 1/8500 s to 1/5 s                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Metadata                   | Object data: Classes: humans, faces, vehicles (types: cars, buses, trucks, bikes), license plates<br>Confidence, position<br>Event data: Producer reference, scenarios, trigger conditions                                                                                                                                                                                                                                              |
| Camera angle adjustment           | Pan ±180°, tilt ±75°, rotation ±175°                                                                                                                                                                                                                                                                                                                                                                                                                                           | Applications               | Included<br>AXIS Object Analytics<br>AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard<br>AXIS Video Motion Detection, active tampering alarm<br>Audio detection<br>Supported<br>AXIS Perimeter Defender<br>Support for AXIS Camera Application Platform enabling installation of third-party applications, see <a href="https://axis.com/acap">axis.com/acap</a>                                                               |
| System on chip (SoC)              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Cybersecurity              |                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Model                             | ARTPEC-7                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Edge security              | Software: Signed firmware, brute force delay protection, digest authentication, password protection, AES-XTS-Plain64 256bit SD card encryption<br>Hardware: Secure boot, Axis Edge Vault with Axis device ID                                                                                                                                                                                                                            |
| Memory                            | 2048 MB RAM, 512 MB Flash                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Network security           | IEEE 802.1X (EAP-TLS), IEEE 802.1AR, HTTPS/HSTS, TLS v1.2/v1.3, Network Time Security (NTS), X.509 Certificate PKI, IP address filtering                                                                                                                                                                                                                                                                                                |
| Compute capabilities              | Machine learning processing unit (MLPU)                                                                                                                                                                                                                                                                                                                                                                                                                                        | Documentation              | <i>AXIS OS Hardening Guide</i><br><i>Axis Vulnerability Management Policy</i><br><i>Axis Security Development Model</i><br>AXIS OS Software Bill of Material (SBOM)<br>To download documents, go to <a href="https://axis.com/support/cybersecurity/resources">axis.com/support/cybersecurity/resources</a><br>To read more about Axis cybersecurity support, go to <a href="https://axis.com/cybersecurity">axis.com/cybersecurity</a> |
| Video                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | General                    |                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 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                                                                                                                                                                                                                                                                                                                                                          | Casing                     | IP66- and NEMA 4X-rated, IK10 impact-resistant polycarbonate casing with hard-coated dome and dehumidifying membrane<br>Encapsulated electronics and captive screws<br>Color: white NCS S 1002-B<br>For repainting instructions and impact on warranty, contact your Axis partner.                                                                                                                                                      |
| Resolution                        | 3840x2160 to 160x90                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Mounting                   | Mounting bracket with holes for junction box (double-gang, single-gang, and 4" octagon) and for wall or ceiling mount<br>¼"-20 UNC tripod screw thread                                                                                                                                                                                                                                                                                  |
| Frame rate                        | 25/30 fps with power line frequency 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                   | Sustainability             | PVC free                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Video streaming                   | Multiple, individually configurable streams in H.264, H.265, and Motion JPEG<br>Axis Zipstream technology for H.264 and H.265<br>Controllable frame rate and bandwidth<br>VBR/ABR/MBR H.264/H.265<br>Low latency mode                                                                                                                                                                                                                                                          | Power                      | Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3<br>Typical 8.6 W, max 11.8 W                                                                                                                                                                                                                                                                                                                                              |
| Multi-view streaming              | Up to 2 individually cropped out view areas in full frame rate                                                                                                                                                                                                                                                                                                                                                                                                                 | Connectors                 | RJ45 10BASE-T/100BASE-TX/1000BASE-T 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: 4-pin 2.5 mm (0.098 in) terminal block for audio in and out                                                                                                                                                                                      |
| Image settings                    | Compression, color saturation, brightness, sharpness, contrast, local contrast, white balance, day/night threshold, tone mapping, exposure control (including automatic gain control), motion-adaptive exposure, exposure zones, defogging, Forensic WDR: up to 120 dB depending on scene, barrel distortion correction, fine tuning of low-light behavior, dynamic text and image overlay, privacy masks, mirroring, rotation: 0°, 90°, 180°, 270°, including Corridor Format |                            |                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Pan/Tilt/Zoom                     | Digital PTZ, preset positions                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Audio                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            |                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Audio streaming                   | Full duplex                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Audio 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<br>Configurable bit rate                                                                                                                                                                                                                                                                                                                                                          |                            |                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Audio input/output                | External microphone input, line input, digital input with ring power, line output, automatic gain control<br>Two-way audio connectivity via optional AXIS T61 Audio and I/O Interfaces with portcast technology                                                                                                                                                                                                                                                                |                            |                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Network                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            |                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Network protocols                 | IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTP/2, HTTPS, TLS, QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, NTS, RTSP, RTP, SRTP/RTSPS, TCP, UDP, IGMP, RTCP, ICMP, DHCPv4/v6, ARP, 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 <a href="https://axis.com">axis.com</a><br>One-click cloud connection<br>ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specification at <a href="https://onvif.org">onvif.org</a><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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|                             | Audio and I/O connectivity via AXIS T61 Audio and I/O Interfaces with portcast technology                                                                                                                                                                                                                                                                                                                                                                                                                             |                                  | Network<br>NIST SP500-267                                                                                                                                                                                                                                                                                                                                                           |
| <b>IR illumination</b>      | OptimizedIR with power-efficient, long-life 850 nm IR LEDs<br>Range of reach 40 m (130 ft) or more depending on the scene                                                                                                                                                                                                                                                                                                                                                                                             | <b>Dimensions</b>                | <b>Without weathershield:</b><br>Height: 104 mm (4.09 in)<br>ø 149 mm (5.87 in)                                                                                                                                                                                                                                                                                                     |
| <b>Storage</b>              | Support for microSD/microSDHC/microSDXC card<br>Support for SD card encryption (AES-XTS-Plain64 256bit)<br>Recording to network-attached storage (NAS)<br>For SD card and NAS recommendations see <a href="https://www.axis.com">axis.com</a>                                                                                                                                                                                                                                                                         | <b>Weight</b>                    | <b>With weathershield:</b><br>800 g (1.8 lb)                                                                                                                                                                                                                                                                                                                                        |
| <b>Operating conditions</b> | -40 °C to 50 °C (-40 °F to 122 °F)<br>Maximum temperature (intermittent): 55 °C (131 °F)<br>Absolute maximum temperature: 74 °C (165 °F) according to NEMA TS2 2016, 2.2.7<br>Start-up temperature: -30 °C to 50 °C (-22 °F to 122 °F)<br>Humidity 10–100% RH (condensing)                                                                                                                                                                                                                                            | <b>Included accessories</b>      | Installation guide, Windows® decoder 1-user license, drill template, Resistorx® T20 L-key, terminal block connectors, cable gaskets, connector guard<br>Weathershield                                                                                                                                                                                                               |
| <b>Storage conditions</b>   | -40 °C to 65 °C (-40 °F to 149 °F)<br>Humidity 5–95% RH (non-condensing)                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Optional accessories</b>      | AXIS T94M02L Recessed Mount, AXIS T94T01D Pendant Kit, AXIS T94M01D Pendant Kit, AXIS Dome Intrusion Switch C, AXIS TP3804-E Metal Casing White, AXIS T6101 Audio and I/O Interface, AXIS T6112 Audio and I/O Interface, AXIS ACI Conduit Adapters, Axis mounts and microphones, smoked dome, black casing<br>For more accessories, see <a href="https://www.axis.com">axis.com</a> |
| <b>Approvals</b>            | EMC<br>EN 55032 Class A, EN 55035, EN 50121-4, IEC 62236-4, EN 61000-3-2, EN 61000-3-3, EN 61000-6-1, EN 61000-6-2, FCC Part 15 Subpart B Class A, ICES-3(A)/NMB-3(A), VCCI Class A, RCM AS/NZS CISPR 32 Class A, KC KN32 Class A, KC KN35<br>Safety<br>IEC/EN/UL 62368-1, IEC/EN/UL 60950-22, IS 13252, IEC/EN 62471<br>Environment<br>IEC 60068-2-1, IEC 60068-2-14, IEC 60068-2-2, IEC 60068-2-27, IEC 60068-2-6, IEC 60068-2-78<br>IEC/EN 60529 IP66, IEC/EN 62262 IK10, NEMA 250 Type 4X, NEMA TS2 (2.2.7-2.2.9) | <b>Video management software</b> | AXIS Companion, AXIS Camera Station, video management software from Axis Application Development Partners available at <a href="https://www.axis.com/vms">axis.com/vms</a>                                                                                                                                                                                                          |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Languages</b>                 | English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese                                                                                                                                                                                                |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Warranty</b>                  | 5-year warranty, see <a href="https://www.axis.com/warranty">axis.com/warranty</a>                                                                                                                                                                                                                                                                                                  |