

## AXIS P5654-E PTZ Network Camera

Wide angle PTZ with HDTV 720p and 21x zoom

AXIS P5654-E PTZ Network Camera is a cost-effective, high performance PTZ camera that offers wide area coverage with 77° field of view. It features Lightfinder 2.0 to capture low-light images with more saturated colors and sharper images of moving objects. And, Forensic WDR for clarity even when there's both dark and light areas in the scene. Electronic image stabilization for stable images and enhanced security features including signed firmware and secure boot. With IP66, NEMA 4X and IK10 ratings it's resistant to both harsh weather conditions and impacts. Plus, you get extended capabilities for advanced analytics.

- > [HDTV 720p with 21x optical zoom](#)
- > [Lightfinder 2.0 and Forensic WDR](#)
- > [Signed firmware and secure boot](#)
- > [Electronic image stabilization](#)
- > [Zipstream with support for H.264 and H.265](#)



# AXIS P5654-E PTZ Network Camera

## Variants

AXIS P5654-E 50 Hz  
AXIS P5654-E 60 Hz

## Camera

### Image sensor

1/2.8" progressive scan RGB CMOS

### Lens

Varifocal, 4.0-84.6 mm, F1.6 - 4.5  
Horizontal field of view: 77.0°- 3.6°  
Vertical field of view: 43.1°- 2.0°  
Autofocus and auto-iris

### Day and night

Automatically removable infrared-cut filter

### Minimum illumination

Color: 0.11 lux at 50 IRE F1.6  
Color: 0.1 lux at 30 IRE F1.6  
B/W: 0.03 lux at 50 IRE F1.6  
B/W: 0.01 lux at 30 IRE F1.6

### Shutter speed

1/66500 s to 2 s

### Pan/Tilt/Zoom

Pan: 360° endless, 0.1°- 350°/s  
Tilt: 180°, 0.1°- 350°/s  
Zoom: 21x optical, 12x digital, Total 252x zoom  
256 preset positions, e-flip, limited guard tour, control queue, on-screen directional indicator, set new pan 0°, focus window, focus recall

## System on chip (SoC)

### Model

ARTPEC-7

### Memory

1024 MB RAM, 512 MB Flash

### Compute capabilities

Machine learning processing unit (MLPU)

## 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

1280x720 HDTV 720p to 320x180

### Frame rate

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

### Video streaming

Multiple, individually configurable streams in H.264, H.265 and Motion JPEG  
Controllable frame rate and bandwidth  
Axis Zipstream technology in H.264 and H.265  
VBR/ABR/MBR H.264/H.265  
Low latency mode

### Image settings

Compression, saturation, brightness, sharpness, contrast, local contrast, white balance, exposure control, exposure zones, Forensic WDR: Up to 120 dB depending on scene, defogging, day/night shift level, tone mapping, fine tuning of low-light behavior, rotation: 0°, 180°, text and image overlay, image freeze on PTZ, electronic image stabilization, scene profiles, 20 individual polygon privacy masks

## Network

### Network protocols

IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTP/2, HTTPS<sup>1</sup>, TLS<sup>1</sup>, 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, IGMPv1/v2/v3, RTCP, ICMP, DHCPv4/v6, ARP, SSH, NTCIP, LLDP, CDP, MQTT v3.1.1, Secure syslog (RFC 3164/5424, UDP/TCP/TLS), Link-Local address (ZeroConf)

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).

## System integration

### Application Programming Interface

Open API for software integration, including VAPIX® and AXIS Camera Application Platform; specifications at [axis.com](https://axis.com)

One-click cloud connection

ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specification at [onvif.org](https://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](https://axis.com/vms).

### Event conditions

Device status: Above operating temperature, Above or below operating temperature, Below operating temperature, Fan failure, IP address removed, Network lost, New IP address, Shock detected, Storage failure, System ready, Within operating temperature, Edge storage, Recording ongoing, Storage disruption  
I/O: Manual trigger, Virtual input

PTZ: PTZ malfunctioning, PTZ movement: Camera 1, PTZ preset position reached: Camera 1, PTZ ready

Scheduled and recurring: Scheduled event

Video: Day-night mode, Live stream open

### Event actions

Day-night mode, go to preset position, guard tour, upload of images or video clips via FTP, SFTP, HTTP, HTTPS, network share and email, notification to email, HTTP, HTTPS, TCP and SNMP trap, overlay text, prioritized text, record video to SD card and network share, WDR mode

### Built-in installation aids

Pixel counter

## Analytics

### Applications

#### Included

AXIS Object Analytics, AXIS Scene Metadata  
AXIS Video Motion Detection, AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard, advanced gatekeeper, autotracker 2

Support for AXIS Camera Application Platform enabling installation of third-party applications, see [axis.com/acap](https://axis.com/acap)

### AXIS Object Analytics

Object classes: humans, vehicles

Scenarios: line crossing, object in area, crossline counting, 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 Scene Metadata

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

Confidence, position

## Approvals

### EMC

EN 50121-4, EN 55024, EN 55032 Class A, 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), IEC 62236-4, KC KN32 Class A, KC KN35, RCM AS/NZS CISPR 32 Class A, VCCI Class A

### Safety

IEC/EN/UL 62368-1, IEC/EN/UL 60950-22, IS 13252

### Environment

IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, EC 60068-2-78, IEC/EN 60529 IP66, IEC/EN 62262 IK10, NEMA 250 Type 4X

### Network

NIST SP500-267, IPv6 USGv6

## 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, AES-XTS-Plain64 256bit SD card encryption  
**Hardware:** Secure boot

### Network security

IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)<sup>2</sup>, IEEE 802.1AE (MACsec PSK/EAP-TLS), HTTPS/HSTS<sup>2</sup>, TLS v1.2/v1.3<sup>2</sup>, Network Time Security (NTS), X.509 Certificate PKI, host-based firewall

2. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. ([openssl.org](https://openssl.org)), and cryptographic software written by Eric Young ([ey@cryptosoft.com](mailto:ey@cryptosoft.com)).

## 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](https://axis.com/support/cybersecurity/resources)

To read more about Axis cybersecurity support, go to [axis.com/cybersecurity](https://axis.com/cybersecurity)

## General

### Casing

IP66-, NEMA 4X- and IK10-rated

Aluminum casing, polycarbonate (PC) dome

Color: white NCS S 1002-B, repaintable skin cover

For repainting instructions of casing and impact on warranty, contact your Axis partner.

### Sustainability

PVC free

### Power

Axis PoE+ midspan 1-port: 100–240 V AC, max 37 W

IEEE 802.3at, Type 2 Class 4

Camera consumption: typical 8 W, max 16 W

(PoE+ midspan not included)

### Connectors

RJ45 10BASE-T/100BASE-TX PoE

RJ45 push-pull connector (IP66) included

### Storage

Support for SD/SDHC/SDXC 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](https://axis.com)

### Operating conditions

–30 °C to 50 °C (–22 °F to 122 °F)

Maximum intermittent temperature 55 °C

Humidity 10–100% RH (condensing)

### Storage conditions

–40 °C to 65 °C (–40 °F to 149 °F)

Humidity 5–95% RH (non-condensing)

### Dimensions

Height: 217 mm (8.54 in)

Ø 188 mm (7.4 in)

## Weight

2.5 kg (5.5 lb)

## Included accessories

RJ45 Push-pull Connector (IP66), hard ceiling mount, spring pipe adaptor, U-profile pipe adaptor, installation guide, Windows® decoder 1-user license, smoked dome

## Optional accessories

AXIS T91B mounts, AXIS T94A02L recessed mount, outdoor RJ45 cable with premounted connector, AXIS T8133 Midspan 30 W 1-port, repaintable skin covers

For more accessories, see [axis.com](https://axis.com)

## Languages

English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese

## Warranty

5-year warranty, see [axis.com/warranty](https://axis.com/warranty)