AXIS M5000 PTZ Camera

Situational awareness camera with build-in PTZ

AXIS M5000 PTZ features three 5 MP sensors and one PTZ camera with 10x optical zoom for total situational awareness of indoor areas up to 400 m² (4300 ft²). With everything displayed on one monitor, you can move from overview to detailed views in a single click. It features autofocus capabilities and day/night functionality. This cost-effective camera offers the benefits of four cameras while installing just one camera. Furthermore, edge storage lets you record directly to an onboard memory card.

> **3x 5 MP sensors for situational awareness**
> **Total overview, zoomed-in details**
> **Covers indoor areas up to 400 m² (4300 ft²)**
> **10x optical zoom with HDTV 1080p**
> **Autofocus**

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Camera

Image sensor
PTZ camera:
1/2.8" progressive scan RGB CMOS
Overview cameras:
1/2.8" progressive scan RGB CMOS

Lens
PTZ camera:
Varifocal, 4.7–47 mm, F1.6–3.0
Horizontal field of view: 61.8°–6.7°
Vertical field of view: 36.3°–3.8°
Autofocus, auto-iris, P-Iris control
Overview cameras:
Focal length 2.39 mm, F2.0
Horizontal field of view: 360°
Vertical field of view: 93°

Day and night
PTZ camera:
Automatically removable infrared-cut filter

Minimum illumination
PTZ camera:
Color: 0.09 lux at 30 IRE F1.6
B/W: 0.01 lux at 30 IRE F1.6
Color: 0.1 lux at 50 IRE F1.6
B/W: 0.01 lux at 50 IRE F1.6
Overview cameras:
Color: 0.08 lux at 30 IRE F2.0
B/W: 0.03 lux at 30 IRE F2.0
Color: 0.4 lux at 50 IRE F2.0
B/W: 0.03 lux at 50 IRE F2.0

Shutter speed
PTZ camera:
1/66500 s to 2 s
Overview cameras:
1/50000 s to 2 s

Pan/Tilt/Zoom
PTZ camera:
Pan: 360° with autoflip, 1.8°–150°/s
Tilt: 180°,1.8°–150°/s
10x optical zoom, 12x digital zoom, total 120x zoom
100 preset positions, limited guard tour, control queue, on-screen directional indicator, E-flip, click-in-image

System on chip (SoC)

Model
ARTPEC-7

Memory
2048 MB RAM, 512 MB Flash

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
PTZ camera:
1920x1080 to 320x180
Overview cameras:
2592x1944 to 320x180

Frame rate
PTZ camera:
Up to 25/30 fps with power line frequency 50/60 Hz
Overview cameras:
Up to 12 fps with power line frequency 50/60 Hz

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
Video streaming indicator
Streaming modes: unicast and multicast[1]

Image settings
Saturation, contrast, brightness, sharpness, WDR – forensic capture, white balance, day/night threshold, tone mapping, exposure mode, exposure zones, compression, text and image overlay, polygon privacy masks, image freeze on PTZ, local contrast, max shutter, max gain, noise/motion priority, aperture lock, exposure level
Scene profiles: indoor, forensic

Signal-to-noise ratio
>55 dB

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1. *We recommend that you use multicast when multiple streams per sensor is required.*

Audio

Audio streaming
Two-way, full duplex

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

Audio input/output
External microphone input or line input, line output,
automatic gain control

Network

Security
HTTPS[2] encryption, IEEE 802.1x (EAP-TLS) network
access control, user access log, centralized certificate
management, signed video, Axis Edge Vault, Axis device
ID, secure keystore (CC EAL4 certified)

Network protocols
IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS[2], HTTP/
2, TLS[2], QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB,
SMTP, mDNS (Bonjour), UPnP®, SNMP v1/v2c/v3 (MIB-
II), DNS/DNSv6, DDNS, NTP, NTS, RTSP, RTCP, RTP, SRTP/
RTSPS, TCP, UDP, IGMPv1/v2/v3, DHCPv4/v6, ARP, SSH,
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*

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
Focus recall area
Video streaming indicator
Privacy masks
Day/night shift

Event conditions
Audio: audio clip playing
Device status: above operating temperature, above or
below operating temperature, below operating
temperature, IP address removed, network lost, new IP
address, storage failure, system ready, within operating
temperature
Edge storage: recording ongoing, storage disruption,
storage health issues detected
I/O: manual trigger, virtual input
MQTT subscribe
PTZ: PTZ malfunctioning, PTZ movement, PTZ preset
position reached, PTZ ready
Scheduled and recurring: scheduled event
Video: average bitrate degradation, day-night mode,
live stream open

Event actions
Audio clips: play, play while the rule is active, stop
playing
Guard tours: Run while the rule is active, start
MQTT publish
Notification: email, HTTP, HTTPS, TCP and SNMP trap
Record video: SD card and network share
Upload of images or video clips: FTP, SFTP, HTTP, HTTPS,
network share and email
Day-night mode, overlay text, preset positions, WDR
mode

Data streaming
Event data

Built-in installation aids
Pixel counter

Analytics

Applications
Included
AXIS Loitering Guard
AXIS Video Motion Detection, audio detection, shock
detection, advanced gatekeeper
Support for AXIS Camera Application Platform enabling
installation of third-party applications, see *axis.com/
acap*

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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).*

Approvals

EMC
EN 55032 Class A, EN 55035, EN 61000-6-1,
EN 61000-6-2
USA: FCC Part 15 Subpart B Class A
Canada: ICES-3(A)/NMB-3(A)
Australia/New Zealand: RCM AS/NZS CISPR 32 Class A
Korea: KS C 9832 Class A, KS C 9835

Safety
CAN/CSA C22.2 No. 62368-1 , IEC/EN/UL 62368-1 ,
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 IP51

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), AES-XTS-Plain64 256bit
SD card encryption
Hardware: Axis Edge Vault cybersecurity platform
Secure element (CC EAL 6+), Axis device ID, secure
keystore, signed video, secure boot

Network security
IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)[3],
IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR,
HTTPS/HSTS[3], TLS v1.2/v1.3[3], 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
IP51-rated
Repaintable plastic casing, polycarbonate (PC) dome

Sustainability
PVC free, BFR/CFR free

Power
Power over Ethernet (PoE) IEEE 802.3at Type 2 Class 4
Typical 7.4 W, max 13.0 W
20–28 V DC, typical 6.5 W, max 11.9 W
(PoE midspan and power supply not included)

Connectors
RJ45 10BASE-T/100BASE-TX/1000BASE-T PoE
DC input terminal block
Audio: mic/line in, line out terminal block

Storage
Support for SD/SDHC/SDXC card
Support for SD card encryption (AES-XTS-Plain64
256bit)
Support for recording to network-attached storage
(NAS)
For SD card and NAS recommendations see *axis.com*

Operating conditions
0 °C to 40 °C (32 °F to 104 °F)
Humidity 10–85% RH (non-condensing)

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

Dimensions
Height: 138 mm (5.4 in), ø 247 mm (9.7 in)

Weight
1.95 kg (4.3 lb)

Included accessories
Installation Guide, Windows® decoder 1-user license,
drill hole template, terminal block connectors,
connector guard, bayonette screws

Optional accessories
AXIS TM5601 Conduit Back Box
AXIS TM5801 Black Dome
For more accessories, see *axis.com*

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3. 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).

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*

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