AXIS V5938 PTZ Network Camera

Broadcast-quality 4K PTZ camera

AXIS V5938 combines excellent image quality with smooth PTZ control and broadcast-quality audio for professional webcasting. It's compatible with VISCA joysticks and VISCA over IP, making it easy to integrate with your existing AV installations. Offering enhanced security features such as signed firmware and secure boot, it ensures the integrity and authenticity of the firmware. Furthermore, Axis Zipstream with H.264 and H.265 significantly reduces bandwidth and storage requirements without compromising image quality. NDI® compliant (license to be bought separately).

> **UHD 4K at 30 fps and 20x zoom**
> **Broadcast-quality audio with XLR inputs**
> **VISCA and VISCA over IP support**
> **Camstreamer 3-month trial included**
> **3G-SDI and HDMI outputs**

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Camera

Image sensor
Progressive scan RGB CMOS 1/2.5"

Lens
4.4–88 mm, F2.0-3.8
Horizontal field of view: 70.2°–4.1°
Vertical field of view: 39.5°–2.3°
Autofocus, P-iris control

Day and night
Automatically removable infrared-cut filter

Minimum illumination
Color:
0.7 lux at 30 IRE F2.0
1 lux at 50 IRE F2.0
B/W:
0.06 lux at 30 IRE F2.0
0.1 lux at 50 IRE F2.0

Shutter speed
1/10000 s to 1 s

Pan/Tilt/Zoom
Pan: ±170°, 0.2-100°/s
Tilt: -20° - 90°, 0.2-90°/s
Zoom: 20x Optical, 12x Digital, Total 240x
256 presets positions, Control queue, On-screen
directional indicator, Adjustable zoom speed, PTZ
response profiles

System on chip (SoC)

Model
ARTPEC-7

Memory
2 GB 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
3840x2160 HDTV 2160p to 160x90
HDMI Output:
2160p@25/30 fps (50/60 Hz)
1080p@25/30/50/60 fps (50/60 Hz)
1080i@50/60 fps (50/60 Hz)
720p@50/60 fps (50/60 Hz)
480p@60 fps (60 Hz)
SDI Output:
1080p@25/30/50/60 fps (50/60 Hz)
1080p@50/60 fps (50/60 Hz) dual stream
1080i@50/60 fps (50/60 Hz)
720p@50/60 fps (50/60 Hz)

Frame rate
Up to 30/25 fps (60/50 Hz) in 4K
Up to 60/50 fps (60/50 Hz) in all other 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
HDMI
HD-SDI: SMPTE 292
3G-SDI: SMPTE 424 ,SMPTE 425 (3G-SDI mapping
supports Level A / Level B dual link mapping)

Image settings
Saturation, brightness, sharpness, noise reduction,
rotation: 0°, 180°, WDR – dynamic contrast, white
balance, day/night threshold, exposure zones, backlight
compensation, defogging, highlight compensation,
electronic image stabilization

Signal-to-noise ratio
>55 dB

Audio

Audio streaming
Two-way, stereo
HD-SDI: SMPTE ST 299-1
3G-SDI: SMPTE ST 299-2

Audio encoding
SDI: AES3 24 bit, 48 kHz
HDMI: LPCM
Network: AAC LC 8/16/32/44.1/48 kHz,
G.711 PCM 8 kHz, G.726 ADPCM 8 kHz,
Opus 8/16/48 kHz, LPCM 48 kHz, Configurable bit rate

XLR input
2 balanced inputs (left/right)
Microphone phantom power 48 V
Balanced external microphone
Balanced line level
Line input impedance: >10 kOhm
Maximum input level: 4.4 Vrms
Bandwidth: 20 Hz - 20 kHz ($\pm$3 dB), may be limited by sample rate
THD+N: < 0.03%
Signal-to-Noise ratio: > 85 dB @ 0 dB gain, > 78 dB @ 30 dB gain

3.5 mm input
Microphone Power 5 V via 2.2 kOhm
Unbalanced external microphone
Unbalanced line
Line input impedance: >10 kOhm
Maximum input level: 2.2 Vrms
Bandwidth: 20 Hz - 20 kHz ($\pm$3 dB), may be limited by sample rate
THD+N: < 0.03%
Signal-to-Noise ratio: > 87 dB @ 0 dB gain, > 83 dB @ 30 dB gain

3.5 mm output
3.5 mm unbalanced stereo output
Output impedance: < 100 Ohm, short circuit proof
Maximum output level: > 0.707 Vrms
Bandwidth: 20 Hz - 20 kHz ($\pm$3 dB), may be limited by sample rate
THD+N: < 0.03% @ 10 kOhm load
Signal-to-Noise ratio: > 87 dB

SDI output
Bandwidth: 20 Hz - 20 kHz ($\pm$3 dB)
THD+N: < 0.03%
Signal-to-Noise ratio: > 87 dB

HDMI output
Bandwidth: 20 Hz - 20 kHz ($\pm$3 dB)
THD+N: < 0.03%
Signal-to-Noise ratio: > 87 dB

Network

Network protocols
IPv4/v6, ICMPv4/ICMPv6, HTTP, HTTP/2, HTTPS[1], TLS[1], QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP[TM], SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, NTS, RTSP, RTP, SFTP, TCP, UDP, IGMP, RTCP, ICMP, DHCPv4/v6, ARP, SSH, SIP, LLDP, CDP, MQTT, Secure syslog (RFC 3164/5424, UDP/TCP/TLS), Link-Local address (ZeroConf), HDMI, 3G-SDI, VISCA

System integration

Application Programming Interface
Open API for software integration, including VAPIX® and AXIS Camera Application Platform; specifications at *axis.com/developer-community.*
One-click cloud connection
ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, 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.

Event conditions
Analytics, external input, edge storage events, virtual inputs through API
Audio: audio detection
Call: state, state change
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
I/O: digital input, 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, live stream open

Event actions
MQTT publish
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
Notification: email, HTTP, HTTPS, TCP and SNMP trap
PTZ: PTZ preset
Overlay text, external output activation, play audio clip, zoom preset, day/night mode, make call

Data streaming
Event data

Built-in installation aids
Pixel counter, leveling guide

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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 Video Motion Detection, AXIS PTZ Autotracking
Support for AXIS Camera Application Platform enabling
installation of third-party applications, see *axis.com/
acap*

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)[2],
IEEE 802.1AE (MACsec PSK/EAP-TLS), 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
ASA plastic cover
Color: White NCS S 1002-B

Power
11–13 V DC (12 V power supply included), typical
17.5 W, max 20 W

Connectors
RJ45 10BASE-T/100BASE-TX/1000BASE-T
Terminal block for 1 alarm input and 1 output
3.5 mm stereo mic/line in, 3.5 mm stereo line out
XLR-3 (left + right) mic/line in (with 48 V phantom
power)
HDMI Type A, BNC for SDI
DC input
RS232 serial connector for VISCA

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*

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)

Approvals
EMC
EN 55032 Class A, EN 55024, EN 55035, 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, CISPR 24,
CISPR 35, KC KN32 Class A, KC KN35
Safety
IEC/EN/UL 62368-1, CAN/CSA C22.2 No. 62368-1, KC-
Markk, 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
Network
NIST SP500-267

Dimensions
Height: 180 mm (7.1 in)
ø 136 mm (5.4 in)

Weight
1.5 kg (3.3 lb)

Included accessories
Power supply, wall/ceiling mount, terminal connector
for I/O, installation guide, Windows® decoder user
license, Camstreamer 3-month trial

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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).*

Optional accessories

AXIS T8310 Video Surveillance Control Board
AXIS VISCA Cable
For more accessories, see *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*