

# 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**



# AXIS V5938 PTZ Network Camera

## 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

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## 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

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## 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

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## SDI output

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

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## HDMI output

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

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## Network

### Network protocols

IPv4/v6, ICMPv4/ICMPv6, HTTP, HTTP/2, HTTPS<sup>1</sup>, TLS<sup>1</sup>, QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP<sup>TM</sup>, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, PTP, 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<sup>®</sup> and AXIS Camera Application Platform (ACAP); specifications at [axis.com/developer-community](http://axis.com/developer-community).  
One-click cloud connection  
ONVIF<sup>®</sup> Profile G, ONVIF<sup>®</sup> Profile M, ONVIF<sup>®</sup> Profile S, ONVIF<sup>®</sup> Profile T, specification at [onvif.org](http://onvif.org)  
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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### 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

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### 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

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### Data streaming

Event data

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### Built-in installation aids

Pixel counter, leveling guide

1. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. ([openssl.org](http://openssl.org)), and cryptographic software written by Eric Young ([eay@cryptsoft.com](mailto: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](http://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)<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

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

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

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

### **Optional accessories**

AXIS T8310 Video Surveillance Control Board

AXIS VISCA Cable

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

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### **Languages**

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

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### **Warranty**

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