

AXIS P7316 Video Encoder

Full-featured, 16-channel video encoder

AXIS P7316 is a full-featured, 16-channel video encoder that adds IP benefits to any analog camera system. It supports standard and HD analog cameras up to 4K resolution as well as PTZ control over RS485. This rack-mounted encoder features support for two-way audio and intelligent analytics such as motion detection and active tampering alarm. An SFP slot enables long-distance fiber-optic connection and network redundancy. AXIS P7316 includes Zipstream with support for H.264/H.265 to drastically reduce bandwidth and storage requirements. Furthermore, it offers built-in cybersecurity features such as signed firmware and secure boot.

- > **Support for HD analog cameras up to 4K**
- > **PTZ control**
- > **2-way audio and configurable I/O**
- > **Zipstream with support for H.264/H.265**
- > **Signed firmware and secure boot**



AXIS P7316 Video Encoder

System on chip (SoC)

Model

4x ARTPEC-7

Memory

4x 1024 MB RAM, 512 MB Flash
Battery backed-up real-time clock

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

176x144/176x120 (PAL/NTSC) to 720x576/720x480 (PAL/NTSC)
High definition TVI, high definition CVI and high definition analog HD (1280x720 and 1920x1080)
4x one channel for resolutions above 1080p (1920x1080)¹

Frame rate

25/30 fps in all resolutions up to 1080p
Up to 30 fps in quad view in full resolution 1080p
4x one channel Quad HD up to 25/30 fps
4x one channel 4K up to 15 fps

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
Quad view

Image settings

Rotation: 0°, 90°, 180°, 270°, de-interlace filter, Compression, color, brightness, contrast, aspect ratio correction, mirroring of images, text and image overlay, polygon privacy mask, video termination, sharpness, noise reduction

Pan/Tilt/Zoom

Wide range of analog PTZ cameras supported, drivers included in the firmware
Up to 100 preset positions/camera, Guard tour, PTZ control queue
Supports Windows compatible joysticks
Compatible with Coaxitron® by Pelco

Audio

Audio streaming

Two-way, full duplex

Audio encoding

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

Audio input/output

8 analog or digital external microphone input or line input, and 4 line output

Network

IP address

Four IP address, one per four channels

Security

IP address filtering, HTTPS² encryption, IEEE 802.1x (EAP-TLS)², network access control, user access log, multi-level user, Axis Edge Vault with Axis device ID

Network protocols

IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTP/2, HTTPS², TLS², QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, PTP, NTS, RTSP, RTP, SRTP/RTSPS, TCP, UDP, IGMPv1/v2/v3, RTCP, ICMP, DHCPv4/v6, ARP, SSH, LLDP, CDP, MQTT v3.1.1, Secure syslog (RFC 3164/5424, UDP/TCP/TLS), Link-Local address (ZeroConf)

1. When you enable one channel for resolutions above 1080p (1920x1080), it disables channel 3 in that section.

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).

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.

Event conditions

Device status: IP address removed, network lost, new IP address, storage failure, system ready

Edge storage: recording ongoing, storage disruption

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, live stream open, tampering

Video encoder: video connected

Event actions

Guard tours, upload of images or video clips, notification, overlay text, preset positions, recordings, SNMP trap messages, status LED, video clips

MQTT publish

Data streaming

Event data

Analytics

Applications

Included

AXIS Video Motion Detection, active tampering alarm

Support for AXIS Camera Application Platform enabling installation of third-party applications, see axis.com/acap

Approvals

EMC

EN 55032 Class A, EN 61000-3-2, EN 61000-3-3, EN 55035, EN 61000-6-1, EN 61000-6-2

Australia/New Zealand: RCM AS/NZS CISPR 32 Class A

Canada: ICES-3(A)/NMB-3(A)

Japan: VCCI Class A

Korea: KS C 9835, KS C 9832 Class A

USA: FCC Part 15 Subpart B Class A

Safety

IEC/EN/UL 62368-1

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

Cybersecurity

ETSI EN 303 645, BSI IT Security Label

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)³, IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR, HTTPS/HSTS³, TLS v1.2/v1.3³, 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

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 (eyay@cryptsoft.com).

General

Casing

Metal casing 1U stand alone, rackmount or wallmount
Color: NCS S 5502-B

Sustainability

PVC free

Power

max 32 W

Connectors

16 pcs analog video BNC inputs
8 pcs 3.5 mm mic/line in
4 pcs 3.5 mm audio line out
1 pc 1000 BASE-TX Ethernet (RJ45)
1 pc auxiliary ethernet (RJ45)
1 pc Gbps SFP slot
4 pcs terminal block for up to 4 configurable external input/output
4 pcs terminal block for RS485/RS422 serial communication (full duplex)
1 pc DC input terminal block

Storage

Support for microSD/microSDHC/microSDXC card and encryption
Recording to network-attached storage (NAS)
For SD card and NAS recommendations see axis.com

Operating conditions

0 °C to 50 °C (32 °F to 122 °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

44 x 145 x 440 mm (1.7 x 5.7 x 17.3 in)

Weight

2100 g (4.6 lb)

Optional accessories

For accessories, see axis.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

Included accessories

Installation guide, Windows® decoder 1-user license, mains power supply, mounting kit (incl 2 mount brackets and 4 rubber feet) and connector kit (8 pcs 2-pin RS485/RS422 plugs, 4 pcs 6-pin I/O plugs)