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**

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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)[a]
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, HTTPS[b] encryption, IEEE 802.1x (EAP-TLS)[b], 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, HTTPS[c], TLS[d], 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, 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*.
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 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)[e], IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR, HTTPS/HSTS[f], TLS v1.2/v1.3[g], 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	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)

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)
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*

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

b. *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).*
c. *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).*
d. *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).*
e. *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).*
f. *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).*
g. *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).*

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