AXIS M7104 Video Encoder

Cost-effective, 4-channel video encoder with Zipstream

AXIS M7104 is a cost-effective, 4-channel video encoder that adds the benefits of IP surveillance to an analog camera system. It supports standard-resolution analog cameras as well as PTZ control over RS-485/422. The encoder features a memory card slot for edge storage and support for intelligent analytics such as motion detection and active tampering alarm. Enhanced security features such as signed firmware and secure boot ensure the integrity and authenticity of the encoder's firmware. Plus, Zipstream with support for H.264/H.265 video compression significantly reduces bandwidth and storage requirements.

> **Full frame rate in all resolutions**

> **Zipstream with support for H.264/H.265**

> **Signed firmware and secure boot**

> **Extended capacity for analytics**

> **PoE and PTZ support**

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System on chip (SoC)

Model	ARTPEC-7
Memory	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)
Frame rate	25/30 fps in all resolutions Up to 30 fps in quad view in full resolution
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/MBR H.264/H.265 Quad view
Image settings	Compression, color, brightness, contrast, rotation: 0°, 90°, 180°, 270°, aspect ratio correction, mirroring of images, text and image overlay, privacy mask, enhanced deinterlace filter, video termination, anti-aliasing, sharpness, noise reduction, local enhancement
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

Network

IP address	One IP address for four channels
Security	IP address filtering, HTTPS[a] encryption, IEEE 802.1X[a] network access control, user access log, centralized certificate management
Network protocols	IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS[a], TLS[a], 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, DHCP, ARP, SSH

System integration

Application Programming Interface	Open API for software integration, including VAPIX® and AXIS Camera Application Platform; specifications at *axis.com* AXIS Video Hosting System (AVHS) with One-Click Camera Connection 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 triggers	Analytics, video loss, edge storage events MQTT subscribe
Event actions	File upload: FTP, SFTP, HTTP, HTTPS network share and email Notification: email, HTTP, HTTPS and TCP External output activation MQTT publish Pre- and post-alarm video buffering PTZ preset Status LED
Data streaming	Event data

Analytics

Applications	**Included** AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard AXIS Video Motion Detection, active tampering alarm **Supported**

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 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)[a], IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR, HTTPS/HSTS[a], TLS v1.2/v1.3[a], 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	Stand alone, metal casing, wall mount
Sustainability	PVC free
Power	8-28 V DC, max 4.7 W Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3
Connectors	Four analog composite video BNC input RJ45 10BASE-T/100BASE-T/1000 BASE-T PoE RS485/RS422, 2 pcs, 2 pos, full duplex, terminal block
Storage	Support for microSD/microSDHC/microSDXC 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 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)
Approvals	**EMC** EN 55032 Class A, EN 61000-3-2, EN 61000-3-3, EN 55024, EN 61000-6-1, EN 61000-6-2, FCC Part 15 Subpart B Class A, ICES-003 Class A, VCCI Class A, RCM AS/NZS CISPR 32 Class A, KC KN32 Class A, KC KN35 **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
Dimensions	187 x 37 mm (7.4 x 1.5 in)
Weight	650 g (1.4 lb)
Included accessories	Installation guide, Windows® decoder 1-user license, DC input plug, 2 pcs 2-pin RS485/RS422 plugs
Optional accessories	For more 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	Axis 3-year warranty, see *axis.com/warranty*

a. *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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