

# AXIS M7116 Video Encoder

Cost-effective, 16-channel video encoder with Zipstream

AXIS M7116 is a cost-effective, 16 channel video encoder that adds the benefits of IP surveillance to analog camera systems. It supports standard resolution analog cameras as well as PTZ control over RS-485. This rack-mounted encoder features memory card slots for edge storage as well as support for intelligent analytics such as motion detection and active tampering alarm. Including Zipstream with H.264/H.265, it significantly reduces bandwidth and storage requirements without compromising image quality. Furthermore, it offers enhanced security features such as signed firmware and secure boot.

- > **30 fps on all 16 channels**
- > **PTZ control**
- > **Zipstream with support for H.264/H.265**
- > **Signed firmware and secure boot**
- > **Support for intelligent analytics**



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<b>System on chip (SoC)</b>		USA: FCC Part 15 Subpart B Class A Canada: ICES-3(A)/NMB-3(A) Australia/New Zealand: RCM AS/NZS CISPR 32 Class A Japan: VCCI Class A Korea: KC KN32 Class A, KC KN35
<b>Model</b>	ARTPEC-7	
<b>Memory</b>	1024 MB RAM, 512 MB Flash Battery backed-up real-time clock	
<b>Video</b>		
<b>Video compression</b>	H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High profiles H.265 (MPEG-H Part 2/HEVC) Main profile Motion JPEG	
<b>Resolution</b>	176x144/176x120 (PAL/NTSC) to 720x576/720x480 (PAL/NTSC)	
<b>Frame rate</b>	25/30 fps in all resolutions Up to 30 fps in quad view in full resolution	
<b>Video streaming</b>	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	
<b>Image settings</b>	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	
<b>Pan/Tilt/Zoom</b>	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	
<b>Network</b>		<b>Safety</b> IEC/EN/UL 62368-1 <b>Environment</b> IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78 <b>Network</b> NIST SP500-267 <b>Cybersecurity</b> ETSI EN 303 645 <b>Cybersecurity</b> <b>Edge security</b> 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 <b>Network security</b> IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2) <sup>a</sup> , IEEE 802.1AE (MACsec PSK/EAP-TLS), HTTPS/HSTS <sup>a</sup> , TLS v1.2/v1.3 <sup>a</sup> , Network Time Security (NTS), X.509 Certificate PKI, host-based firewall <b>Documentation</b> <i>AXIS OS Hardening Guide</i> <i>Axis Vulnerability Management Policy</i> <i>Axis Security Development Model</i> AXIS OS Software Bill of Material (SBOM) To download documents, go to <a href="https://axis.com/support/cybersecurity/resources">axis.com/support/cybersecurity/resources</a> To read more about Axis cybersecurity support, go to <a href="https://axis.com/cybersecurity">axis.com/cybersecurity</a>
<b>IP address</b>	Four IP address, one per four channels	
<b>Security</b>	IP address filtering, HTTPS <sup>a</sup> encryption, IEEE 802.1X (EAP-TLS) <sup>a</sup> , network access control, user access log, multi-level user	
<b>Network protocols</b>	IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTP/2, HTTPS <sup>a</sup> , TLS <sup>a</sup> , QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP <sup>®</sup> , 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)	
<b>System integration</b>		
<b>Application Programming Interface</b>	Open API for software integration, including VAPIX <sup>®</sup> and AXIS Camera Application Platform; specifications at <a href="https://axis.com">axis.com</a> One-click cloud connection ONVIF <sup>®</sup> Profile G, ONVIF <sup>®</sup> Profile M, ONVIF <sup>®</sup> Profile S, and ONVIF <sup>®</sup> Profile T, specification at <a href="https://onvif.org">onvif.org</a>	
<b>Video management systems</b>	Compatible with AXIS Camera Station Edge, AXIS Camera Station Pro, AXIS Camera Station 5, and video management software from Axis' partners available at <a href="https://axis.com/vms">axis.com/vms</a> .	
<b>Event conditions</b>	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	
<b>Event actions</b>	Guard tours, upload of images or video clips, notification, overlay text, preset positions, recordings, SNMP trap messages, status LED, video clips MQTT publish	
<b>Data streaming</b>	Event data	
<b>Analytics</b>		
<b>Applications</b>	Included AXIS Video Motion Detection, active tampering alarm Support for AXIS Camera Application Platform enabling installation of third-party applications, see <a href="https://axis.com/acap">axis.com/acap</a>	
<b>Approvals</b>		
<b>EMC</b>	EN 55032 Class A, EN 61000-3-2, EN 61000-3-3, EN 55035, EN 61000-6-1, EN 61000-6-2	
<b>General</b>		<b>Casing</b> Metal casing 1U stand alone, rackmount or wallmount Color: white NCS S 1002-B <b>Sustainability</b> PVC free <b>Power</b> max 26 W <b>Connectors</b> 16 pcs analog video BNC inputs 1 pc 1000 BASE-TX Ethernet (RJ45) 4 pcs terminal block for RS485/RS422 serial communication (full duplex) 1 pc DC input terminal block <b>Storage</b> Support for microSD/microSDHC/microSDXC card and encryption Recording to network-attached storage (NAS) For SD card and NAS recommendations see <a href="https://axis.com">axis.com</a> <b>Operating conditions</b> 0 °C to 50 °C (32 °F to 122 °F) Humidity 10–85% RH (non-condensing) <b>Storage conditions</b> -40 °C to 65 °C (-40 °F to 149 °F) Humidity 5-95% RH (non-condensing) <b>Dimensions</b> 44 x 145 x 440 mm (1.7 x 5.7 x 17.3 in) <b>Weight</b> 2050 g (4.5 lb) <b>Included accessories</b> Installation guide, Windows <sup>®</sup> decoder 1-user license, DC input plug, 8 pcs 2-pin RS485/RS422 plugs, mains power supply, mounting and connector kit <b>Optional accessories</b> For accessories, see <a href="https://axis.com">axis.com</a> <b>Languages</b> English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Polish, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese <b>Warranty</b> 5-year warranty, see <a href="https://axis.com/warranty">axis.com/warranty</a>
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a. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. ([openssl.org](https://openssl.org)), and cryptographic software written by Eric Young ([ey@cryptsoft.com](mailto:ey@cryptsoft.com)).