# AXIS C8110 Network Audio Bridge
## Versatile audio hub

AXIS C8110 Network Audio Bridge is a smart solution based on open standards for connecting and combining analog and digital audio systems. Thanks to the built-in AXIS Audio Manager Edge application you can get functionalities like zone management and content scheduling in existing analog systems. With SIP support it is possible to connect an IP telephony system for callouts in analog speakers. With analog audio input you can easily integrate your intercom system or music streaming box with network speakers from Axis.

> **Combines analog and network audio**

> **I/Os for buttons and relays**

> **PoE for easy installation**

> **Based on open standards**

> **Easy integration with other systems**

# AXIS C8110 Network Audio Bridge

## Audio hardware

| | |
|---|---|
| Frequency response | 20 Hz - 20 kHz |
| Audio input/output | Mic-in, line-in, line-out |
| Digital signal processing | Built-in and pre-configured |

## Audio software

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|---|---|
| Audio encoding | AAC LC 8/16/32/48 kHz, G.711 PCM 8 kHz, G.726 ADPCM 8 kHz, Axis µ-law 16 kHz, WAV, MP3 in mono/stereo from 64 kbps to 320 kbps. Constant and variable bit rate. Sampling rate from 8 kHz up to 48 kHz. |

## Audio management

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| AXIS Audio Manager Edge | Built in: <br> – Content management for music and live/pre-recorded announcements. <br> – Scheduling to decide when and where to play specific content. <br> – Content prioritization to ensure urgent messages interrupt the schedule. <br> – Zone management allowing you to divide up to 200 speakers into 20 zones. <br> – Health monitoring for remote discovery of system errors. <br> – User management to control who has access to what features. <br> See separate datasheet for more details. |
| AXIS Audio Manager Pro | For larger and more advanced systems. Sold separately. See separate datasheet for specifications. |
| AXIS Audio Manager Center | AXIS Audio Manager Center is a cloud service for remote access and management of multi-site systems. |

## System on chip (SoC)

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| Model | i.MX 6SoloX |
| Memory | 512 MB RAM, 512 MB Flash |

## Network

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|---|---|
| Security | Password protection, IP address filtering, HTTPS[a] encryption, IEEE 802.1X[a] network access control, Digest authentication, User access log, Centralized Certificate Management |
| Network protocols | IPv4/v6[b], HTTP, HTTPS[a], SSL/TLS[a], QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, Bonjour, UPnP™, SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMPv1/v2/v3, RTCP, ICMP, DHCP, ARP, SOCKS, SSH, Secure syslog (RFC 3164/5424, UDP/TCP/TLS), NTCIP, SIP (Cisco, Avaya, Asterisk) |

## System integration

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|---|---|
| Application Programming Interface | Open API for software integration, including VAPIX®, One-click cloud connection, AXIS Camera Application Platform (ACAP) Support for Session Initiation Protocol (SIP) for integration with Voice over IP (VoIP) systems, peer to peer or integrated with SIP/PBX <br> Tested with various SIP client such as Cisco, Bria and Grandstream. <br> Tested with various PBX suppliers such as Cisco and Asterisk. |
| 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. |
| VoIP | Support for Session Initiation Protocol (SIP) for integration with Voice over IP (VoIP) systems. Peer to peer or integrated with SIP/PBX. <br> Tested with: SIP client such as Cisco, Bria and Grandstream and PBX suppliers such as Cisco and Asterisk. <br> Supported SIP features: secondary SIP server, IPv6, SRTP, SIPS, SIP TLS, DTMF (RFC2976 and RFC2833), NAT (ICE, STUN, TURN) <br> Supported codecs: PCMU, PCMA, opus, L16/16000, L16/8000, speex/8000, speex/16000, G.726-32 |
| Event triggers | Call, Virtual inputs, External input, AXIS Camera Application Platform (ACAP) |
| Event actions | Play audio clip, send SNMP trap, status LED <br> File upload via HTTP, network share and email |

Notification via email, HTTP, HTTPS and TCP
External output activation

## Approvals

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|---|---|
| EMC | CISPR 35, CISPR 32 Class B, EAC, EN 55035, EN 55032 Class B, EN 61000-6-1, EN 61000-6-2, FCC Part 15 Subpart B Class B, ICES-3(B)/NMB-3(B), KC KN35, KN32 Class B, RCM AS/NZS CISPR 32 Class B, VCCI Class B, |
| Safety | UL 62368-1 |
| Environment | IEC/EN 60529 IP20 |
| Cybersecurity | ETSI EN 303 645 |

## Cybersecurity

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| 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 <br> **Hardware:** Axis Edge Vault cybersecurity platform Secure element (CC EAL 6+), Axis device ID, secure keystore, secure boot |
| Network security | IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)[a], 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* <br> *Axis Vulnerability Management Policy* <br> *Axis Security Development Model* <br> AXIS OS Software Bill of Material (SBOM) <br> To download documents, go to *axis.com/support/cybersecurity/resources* <br> To read more about Axis cybersecurity support, go to *axis.com/cybersecurity* |

## General

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|---|---|
| Casing | IP20-rated <br> Plastic and metal casing <br> Color: Black NCS S 9000–N |
| Power | 8–28 V DC, max 4 W typical 1.85 W <br> Power over Ethernet (PoE) IEEE 802.3af Type 1 Class 2 (max 4 W) |
| Connectors | RJ45 10BASE-T/100BASE-TX PoE <br> I/O: 4-pin 2.5 mm terminal block for two configurable inputs/outputs <br> Power: 2-pin 5.0 mm terminal block DC input <br> Audio: 3 pole 3.5 mm, RCA line out |
| Storage | Support for microSD/microSDHC/microSDXC card <br> Max. size 1 TB <br> For SD card recommendations see www.axis.com |
| Reliability | Designed for 24/7 operation. |
| LED indicators | Status LED |
| Operating conditions | –20 °C to 50 °C (4 °F to 122 °F) <br> Humidity 10–85% RH (condensing) |
| Storage conditions | -40 °C to 65 °C (-40 °F to 149 °F) <br> Humidity 5–95% RH (non-condensing) |
| Dimensions | H x D x W: 24 x 56 x 128 mm (0.94 x 2.2 x 5.0 in) |
| Weight | 107 g (0.24 lb) |
| Included accessories | Installation Guide, AVHS authentication key, power connector, I/O connector, hook-and-loop fastener |
| Optional accessories | Power supply <br> For more accessories, see www.axis.com |
| Languages | English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese |
| Warranty | 5-year warranty, see axis.com/warranty |

a. *This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (www.openssl.org), and cryptographic software written by Eric Young (eay@cryptsoft.com).*
b. *Audio synchronization with IPv4 only.*

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