AXIS C1610-VE Network Sound Projector
Sleek, robust speaker for clear speech

This network sound projector features a clean and minimalistic design suited to both outdoor and indoor environments. Digital signal processing (DSP) ensures clear sound, and embedded audio management software lets users remotely co-ordinate security, safety, and operational messages alongside background music. Built-in memory supports prerecorded messages, and live speak lets personnel address events in real time. Built on open standards, this speaker supports integration with network video, access control, analytics, and VoIP (supporting SIP). This standalone unit connects directly to your standard network for a flexible, scalable, cost-effective audio solution. Furthermore, its IK10 vandal-resistant rating allows for placement almost anywhere.

> **Sleek, vandal-resistant design**

> **All-in-one, outdoor-ready speaker system**

> **Connects to standard network**

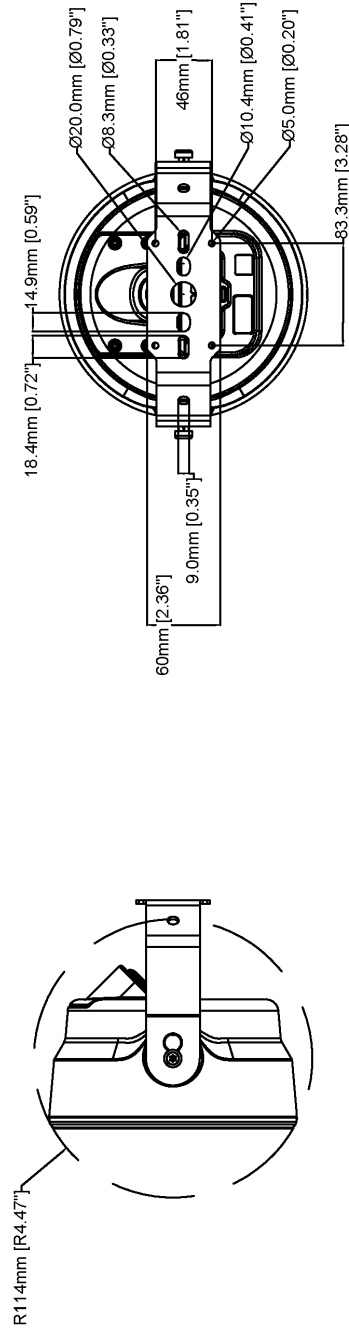> **Simple installation with PoE**

> **Remote health testing**

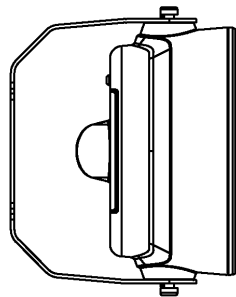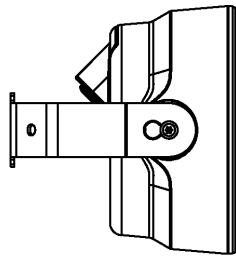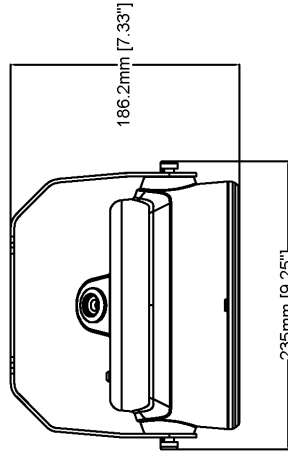reddot winner 2022

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Audio hardware

Enclosure	One-way enclosure with 4-inch broadband dynamic cone speaker
Max sound pressure level	106 dB
Frequency response	200 Hz - 16 kHz
Coverage pattern	130° (at 2 kHz)
Audio input/output	Built-in microphone (can be disabled mechanically)
Built-in microphone specification	50 Hz - 15 kHz
Amplifier description	Built-in 7 W Class D amplifier
Digital signal processing	Built-in and pre-configured

Audio management

AXIS Audio Manager Edge	Built in: – Zone management allowing you to divide up to 200 speakers into 20 zones. – Content management for music and live/pre-recorded announcements. – Scheduling to decide when and where to play content. – Content prioritization to ensure urgent messages interrupt the schedule. – Health monitoring for remote discovery of system errors. – User management to control who has access to what features. For more details, see the datasheet on *axis.com/products/axis-audio-manager-edge/support*
AXIS Audio Manager Pro	For larger and more advanced systems. Sold separately. For specifications, see the datasheet on *axis.com/products/axis-audio-manager-pro/support*
AXIS Audio Manager Center	AXIS Audio Manager Center is a cloud service for remote access and management of multi-site systems. For specifications, see the datasheet on *axis.com/products/axis-audio-manager-center/support*

Audio software

Audio streaming	One-way/two-way with optional half-duplex echo cancellation. Mono.
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.

System integration

Application Programming Interface	Open API for software integration, including VAPIX®, One-click cloud connection, AXIS Camera Application Platform (ACAP).
Video management systems	Compatible with AXIS Companion, AXIS Camera Station, video management software from Axis' Application Development Partners available at *axis.com/vms*
Mass notification	Singlewire InformaCast®, Intrado Revolution, Lynx, Alertus
Unified communication	Verified compatibility: **SIP clients:** 2N, Yealink, Cisco, Linphone, Grandstream **PBX/SIP servers:** Cisco Call Manager, Cisco BroadWorks, Avaya, Asterix, Grandstream **Cloud service providers:** Webex, Zoom
SIP	**Supported SIP features:** Secondary SIP server, IPv6, SRTP, SIPS, SIP TLS, DTMF (RFC2976 and RFC2833), NAT (ICE, STUN, TURN) **RFC 3261:** INVITE, CANCEL, BYE, REGISTER, OPTIONS, INFO DTMF (RFC 4733/RFC 2833)
Event conditions	Audio: audio clip playing, speaker test result Call: state, state change Device status: IP address blocked/removed, new IP address, network lost, system ready, live stream active Edge storage: recording ongoing, storage disruption, storage health issues detected I/O: digital input, manual trigger, virtual input MQTT: stateless

Event actions

	Scheduled and recurring: schedule
Event actions	Audio: run automatic speaker test Audio clips: play, stop I/O: toggle I/O once, toggle I/O while the rule is active LEDs: flash status LED, flash status LED while the rule is active Light and siren: run light profile, run light profile while the rule is active, stop activities MQTT: publish Notification: HTTP, HTTPS, TCP and email Recordings: record audio, record audio while the rule is active Security: erase configuration SNMP traps: send, send while the rule is active
Built-in installation aids	Test tone verification and identification
Functional monitoring	Auto Speaker Test (verification via built-in microphone)

Approvals

EMC	EN 55032 Class B, EN 50121-4, EN 61000-6-1, EN 61000-6-2, IEC 62236-4, EN 55024 **Australia/New Zealand:** RCM AS/NZS CISPR 32 Class B **Canada:** ICES-3(B)/NMB-3(B) **Japan:** VCCI Class B **Korea:** KC KN32 Class B, KC KN35 **USA:** FCC Part 15 Subpart B Class B **Railway:** IEC 62236-4
Safety	IEC/EN/UL 62368-1, IEC/EN/UL 60950-22
Environment	IEC 62262 IK11, IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-14, IEC 60068-2-78, IEC/EN 60529 IP66, NEMA 250 Type 4X, MIL-STD-810G 509.5, ISO 21207 (Method B), ISO 4892-2
Cybersecurity	ETSI EN 303 645

Network

Network protocols	IPv4/v6[a], HTTP, HTTPS, SSL/TLS, 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, NTCIP, SIP

Cybersecurity

Edge security	**Software:** Digest authentication and OAuth 2.0 RFC6749 OpenID Authorization Code Flow for centralized ADFS account management, password protection
Network security	IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2), IEEE 802.1AR, HTTPS/HSTS, TLS v1.2/v1.3, 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*

System on chip (SoC)

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

General

Casing	Impact-resistant aluminum, IP66-, IK11-, NEMA 4X-, and MIL-STD-810G 509.5-rated.
Power	Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3 (typical 4.5 W, max 12.95 W)
Connectors	RJ45 10BASE-T/100BASE-TX PoE I/O: 4-pin 2.5 mm terminal block for 2x supervised configurable I/Os
LED indicators	Status LED, front-facing LED
Storage	Support for microSD/microSDHC/microSDXC card Max. size 1 TB For SD card recommendations see *www.axis.com*
Reliability	Designed for 24/7 operation.

Operating conditions	-40°C to 55 °C (-40 °F to 131 °F) Humidity 10-100% RH (condensing)
Storage conditions	-40 °C to 65 °C (-40 °F to 149 °F) Humidity 5-95% RH (condensing)
Dimensions	Ø203 X 105 mm (Ø8.0 x 4.1 in)
Weight	4.1 kg (9.0 lb)
Box content	Speaker, installation guide, Owner Authentication Key, AXIS Connector Guard A, Cable shoe
Optional accessories	AXIS T91B47 Pole Mount, AXIS T91F67 Pole Mount, Cable Gland M20x1.5, RJ45, Cable Gland A M20, AXIS Power over Ethernet Midspans, T94R01B Corner Bracket, T94P01B Corner Bracket, T94S01P Conduit Back Box 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	5-year warranty, see *axis.com/warranty* Available at *axis.com/products/axis-c1610-ve#part-numbers*
Tools	
Design	AXIS Site Designer

	Available at *axis.com*
Installation	AXIS Device Manager, product selector, accessory selector Available at *axis.com*
Sustainability	
Substance control	PVC free, BFR/CFR free in accordance with JEDEC/ECA Standard JS709 RoHS in accordance with EU RoHS Directive 2011/65/EU/ and EN 63000:2018 REACH in accordance with (EC) No 1907/2006. For SCIP UUID, see axis.com/partner.
Materials	Renewable carbon-based plastic content: 26% (recycled: 0%, bio-based: 26%, carbon capture based: 0%) Screened for conflict minerals in accordance with OECD guidelines To read more about sustainability at Axis, go to *axis.com/about-axis/sustainability*
Environmental responsibility	*axis.com/environmental-responsibility* Axis Communications is a signatory of the UN Global Compact, read more at *unglobalcompact.org*

a. *Audio synchronization with IPv4 only.*

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Ø202mm [Ø7.95"]

186.2mm [7.33"]

235mm [9.25"]

14.9mm [0.59"]

18.4mm [0.72"]

Ø20.0mm [Ø0.79"]

Ø8.3mm [Ø0.33"]

46mm [1.81"]

Ø10.4mm [Ø0.41"]

Ø5.0mm [Ø0.20"]

83.3mm [3.28"]

9.0mm [0.35"]

60mm [2.36"]

R114mm [R4.47"]
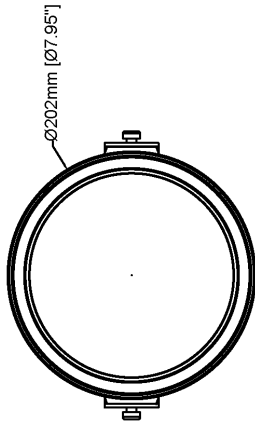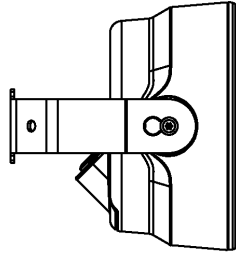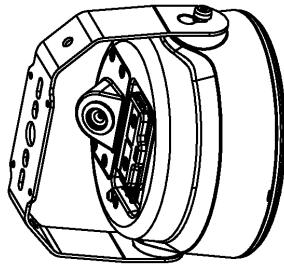
Revision	v.01	Revision date	2023-01-16
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