AXIS COMMUNICATIONS

AXIS P8221 Network I/O Audio Module
Enhances video surveillance systems with additional I/O

AXIS P8221 Network I/O Audio Module provides additional I/O and audio capabilities to network video surveillance systems that do not have such support or require additional support. AXIS P8221 complements Axis network video products and integrates easily into existing network video installations using VAPIX®. AXIS P8221 has eight digital I/O ports that can be configured as inputs or outputs. Input ports can be connected to sensors such as door switches, smoke detectors or IR detectors. Output ports can be connected to control devices or relays, for instance to open/ close doors or to turn on/off lights, and control them remotely.

> **Eight configurable digital I/O ports**

> **Speaker output**

> **Balanced microphone support**

> **Power over Ethernet**

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I/O interface

Digital I/O	8 configurable I/O ports Input ports: min -40 V DC, max 40 V DC Output ports: Open-drain, max load 100 mA, max voltage 40 V DC
I/O functionality	Input trigger Output toggle/pulse

Audio

Audio streaming	Two-way, full and half duplex
Audio encoding	**Encoding:** AAC-LC 8, 16 or 32 kHz 8–128 kbit/s G.711 PCM 8 kHz 64 kbit/s G.726 ADPCM 8 kHz 32 or 24 kbit/s **Decoding:** G.711 PCM 8 kHz 64 kbit/s G.711 PCM 16 kHz 128 kbit/s G.726 ADPCM 8 kHz 32 or 24 kbit/s
Audio input/output	Input: Microphone/Line in, 48 V phantom powered balanced microphone Output: Line out, Speaker 0,5 W RMS at 4 Ω
Functionality	Audio streaming, play uploaded (WAV, AU) and record (AU) clips AU (G.711 µ-law 8-bit 8/16 kHz Mono), WAV (PCM 16-bit 8/16/32 kHz Mono) Audio detection trigger

Network

Security	Password protection, IP address filtering, HTTPS[a] encryption, IEEE 802.1X[a] network access control, digest authentication, user access log
Supported protocols	IPv4/v6, HTTP, HTTPS[a], SSL/TLS[a], QoS Layer 3 DiffServ, FTP, SFTP, SMTP, Bonjour, UPnP™, SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS

System integration

Application Programming Interface	Open API for software integration, including VAPIX®; specifications at *www.axis.com*
Web browser	Configuration and management, I/O monitor/control, Two-way audio, Synchronize audio with external video source, Record (video and/or audio) to file (ASF)
System requirements	AXIS Media Control (AMC) is required to access live video and audio in Live view

Event triggers	Audio detection External inputs On boot
Event actions	Notification: email, HTTP, TCP External output port Play audio clip

General

Casing	Metal casing, standalone or wall mount
Memory	64 MB RAM, 128 MB Flash
Power	8–34 V DC, max 8.2 W 20–24 V AC, max 13.7 VA Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3
Connectors	RJ45 10BASE-T/100BASE-TX PoE Terminal blocks: power (8–34 V DC/ 20–24 V AC), I/O, Balanced microphone, Speaker out, RS232/RS485/RS422 serial port 3.5 mm mic/line in, 3.5 mm line out
Operating conditions	0 °C to 50 °C (32 °F to 122 °F) Humidity 20–80% RH (non-condensing)
Approvals	EN 55022, EN 61000-3-2, EN 61000-3-3, EN 55024, EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, FCC Part 15 Subpart B Class B, ICES-003 Class B, VCCI Class B, RCM AS/NZS CISPR 22 Class B EN 60950-1
Dimensions	98,9 x 118 x 31,4 mm (3.9 x 4.6 x 1.3 in)
Weight	335 g (0.7 lb)
Included accessories	Power supply, Mounting and connector kits, Installation guide, Windows decoder user license
Optional accessories	For more accessories, see *www.axis.com*
Languages	English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Traditional Chinese
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).*

Environmental responsibility:

axis.com/environmental-responsibility

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