AXIS P8221 Network I/O Audio Module

Enhances video surveillance systems with additional I/O and superb audio quality.

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

> **Superb audio quality**

> **Speaker output**

> **Balanced microphone support**

> **Power over Ethernet**

> **Control over legacy equipment**

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 either 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.

AXIS P8221 provides two-way audio in half or full duplex. Audio can be encoded in high quality AAC at up to 128 kbit/s bit rate with 32 kHz sampling.

AXIS P8221 has a built-in pre-amplifier and phantom power which eliminates the need for an external power solution when using balanced microphones, and can provide savings in installation costs. The input for the balanced microphone has an adjustable gain to allow for improved adaptation of microphones with different output levels.

AXIS P8221 has support for Power over Ethernet allowing easy, cost-efficient and reliable installation.

With the built-in serial server support, AXIS P8221 enables legacy devices and temperature sensors to be connected to the system using RS232, RS422 and RS485.

Technical Specifications – AXIS P8221 Network I/O Audio Module

54571/EN/M1.4/112013

Digital I/O	
I/O interface	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 compression	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, SMTP, Bonjour, UPnP™, SNMPv1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS

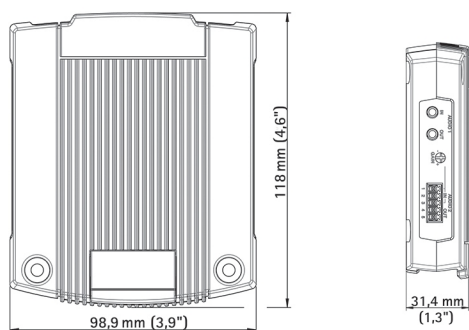| System integration	
Application Programming Interface	Open API for software integration, including VAPIX®; specifications at www.axis.com
Web browser	Configuration and management, I/O monitor/control, Two-way audio, Synchronize audio with external video source, Record (video and/or audio) to file (ASF)
System requirements	Windows XP, Vista, 2000, Server 2003 DirectX 9c or higher, Internet Explorer required for audio support

	For other operating systems and browsers see www.axis.com/techsup
Event triggers	Audio detection, External inputs, On boot
Event actions	Notification: email, HTTP and 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 or 20–24 V AC, max. 13.7 VA or Power over Ethernet 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 Class B, EN 61000-3-2, EN 61000-3-3, EN 55024, EN 61000-6-1, EN 61000-6-2, FCC Part 15 Subpart B Class B, ICES-003 Class B, VCCI Class B, C-tick AS/NZS CISPR 22 Class B, EN 60950-1 Power supply PS-T: EN 60950-1, CSA, C/US
Weight	335 g (0.7 lb)
Included accessories	Power supply, Mounting and connector kits, Installation Guide, Installation and Management Software CD, 1x Windows decoder user license
Warranty	Axis 3-year warranty, see www.axis.com/warranty

a. *This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/), and cryptographic software written by Eric Young (eay@cryptsoft.com).*

More information is available at www.axis.com

Dimensions

118 mm (4,6")
98,9 mm (3,9")
31,4 mm (1,3")

Optional accessories

AXIS T91A02 DIN Rail Clip 77 mm

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