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
AXIS P8221 Network I/O Audio Module

### 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 compression**
- Encoding: AAC-LC, 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 encryption, IEEE 802.1X® network access control, digest authentication, user access log

**Supported protocols**
- IPv4/IPv6, HTTP, HTTPS®, SSL/TLS®, 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

### 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

**Connectors**
- RJ45 10BASE-T/100BASE-TX PoE
- Terminal blocks: power (8–34 V DC), 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, RCMA/NS CISPR 22 Class B

**Dimensions**
- 98.9 x 118 x 31.4 mm (3.9 x 4.6 x 1.2 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**
- Axis 3-year warranty and AXIS Extended Warranty option, see www.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**
- www.axis.com/environmental-responsibility