# BARIX

# **IPAM 400 Evaluation KIT**

Paging / Intercom device, mic/speaker support, balanced audio interface PoE with IPAM 400 Module and Yocto Linux SW development environment.





The IPAM 400 Evaluation KIT is a generic IP Audio device designed to serve as a gateway between IP based VoIP, Paging, Intercom systems and traditional systems or call boxes, loudspeakers and microphones.

It is equiped with the new IPAM400 module with OEM firmware and can be programmed using the Linux Yocto based Barix IPAM400 development kit. (contact Barix for access to the development environment)

The IPAM400 Evaluation kit comes with a SIP VoIP (PJSIP) example implementation as well as a simple stream decode application and is ready to be loaded with custom developed applications using the IPAM400 development environment. The hardware is PoE powered and allows direct connection of a typical ceiling speaker, an amplifier (balanced interface), microphone or line input and a dry contact. A serial port supports RS-232 interfacing.

Read our terms and conditions at www.barix.com before using the IPAM400 module in your own development.

#### **Applications**

- Generic VoIP Intercom and Paging Device with speaker amplifier
- Classroom VoIP device with built-in amplifier, talk back, serial port
- Microphone Encoder for IP Audio Surveillance
- Help Point/SOS call box device
- Door Intercom Controller, VoIP based
- Generic, bidirectional full-duplex VoIP module for Paging and Intercom applications
- SIP and IP Paging Zone Device

#### **Features**

- Linux Yocto development evironment
- Example SIP and audio decode application
- 10/100Mbps ethernet port on RJ45
- Microphone Input
- Line Level Output (balanced)
- Amplified Output 5W (80hm)
- Contact Closure Input (1)
- RS-232 Serial Port
- Powered via PoE

# **Technical Specifications**

Audio and contact closure interfaces are provided on a joint removable screw terminal block.

#### **Electrical**

- 802.3af PoE on RJ-45 connector
- 48 VDC nominal, 12 Watt max.

#### **Ethernet**

- 10/100Mbps auto rate, full/half duplex
- RJ-45 connector with integrated Link/Activity LED
- 802.3af PoE support
- Protocols: TCP/IP, UDP, RTP, DHCP, Multicast capable

#### **Audio Input**

- Characteristics/mode selectable by software:
- · "Mic" mode:
  - 2.9 VDC, bias power for electret microphone supplied
- "Line" mode: 2kΩ input impedance, 3.9 Vpp max, adjustable in sensitivity
- Frequency response 25 Hz .. 19 kHz (-3dB)\*
- Dynamic range 85 dB, SNR -85 dB, THD <0.1% (-3 dBFS)\*</li>

#### Mechanical

- · Aluminum case, 280g
- Dimensions 108 x 38 x 78.7 mm (4.25 x 1.5 x 3.1" inch)
- rack and wall mountable using optional accessories

#### **MTBF**

min. 500 000h (according to MIL217F at 25°C)

#### **Analog Line Output (mono)**

- Transformer isolated, balanced (600 Ω)
- Output level software controllable
- Full scale output voltage: 5.2 dBu, 4.0 Vpp
- Frequency response 35 Hz .. 17 kHz (-3dB)\*
- Dynamic range 85 dB, SNR -85 dB, THD <0.5% (-3dBFS)\*</li>

#### Speaker out

- Suggested speaker impedance 8Ω (min.)
- 5 Watt max output power @  $8\Omega$
- Values @ 8Ω:
  Frequency response 25 Hz .. 16 kHz (-3dB)\*,
  Dynamic range 87 dB, SNR 87 dB, THD <1% (-3dBFS)\*</li>

#### **RS-232 Interface**

- · On 9-pin Sub-D connector, male
- 5-wire (Tx, Rx, RTS, CTS, GND)
- 300..230'400 Baud asynchronous, tunneling or local control

#### **Supported Firmware**

- Includes IPAM 400 module with Barix Linux Yocto development environment (enquire at sales@barix.com for the virtual image of dev. env.)
- Example code for SIP VoIP and simple stream decode

### Discrete I/O (Contact Closure Input)

- 1 discrete / dry contact input
- \* depends on used codec, best results @48kHz PC

## **Environmental**

#### **Operating Environment**

0 to +50°C / 32 to 122°F 0 - 70% relative humidity, non-condensing

#### **Storage Conditions**

-20 to +70°C / -4 to 158°F 0 - 70% relative humidity, non-condensing

## **Certifications**

CE, RoHS, others in examination

# **Ordering Information**

2018.5032 IPAM 400 Evaluation Kit 2006.9072 Wall mount bracket



For commercial related questions (distributors contacts, price list, business opportunities) please contact: <a href="mailto:sales@barix.com">sales@barix.com</a>



For technical inquiries (problem reports, request for documentation, etc.)

please contact: <a href="mailto:support@barix.com">support@barix.com</a>

Barix AG Limmatstrasse 21, 8005 Zürich, Switzerland

Phone: +41 434 33 22 11 www.barix.com



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