MPI400 Flexa
Programmable Intercom device with contact closure inputs, relay outputs, Line and Mic / Speaker support

The MPI400 FLEXA is a PoE powered device that supports the FLEXA ecosystem providing mono audio input (line level as well as balanced, phantom powered microphone input) and an audio output (line level out and speaker (1W into 8 Ohm) as well as symmetric/balanced output). It also supports 2 digital dry contact inputs and 2 relay. This features makes the MPI400 FLEXA the ideal platform of all kinds of customised intercom and control applications. Where audio needs to be transported both ways and where control support is requested, for example to initiate a call with a call button or to switch a door opener or turn on a light.

FLEXA is an ecosystem to develop simple applications that run on Barix Flexa devices. The advantage of FLEXA is that it doesn’t require to compile code and produce images to make a device solving a specific problem. The only thing required is to write a program that runs on the Flexa devices and that can be deployed on the same.

FLEXA applications can be programmed by Barix as a service and are distributed over the cloud using the Barix FLEXA distribution mechanism.

Applications
- Paging / intercom device with talkback for classrooms or factory buildings.
- Door Intercom station
- Paging/ intercom endpoint for public transportation
- Help Point/SOS call box device
- Generic, bidirectional half and full-duplex VoIP module for Paging and Intercom applications
- IP based Audio Surveillance
- Digital Annunciator, Message Player
- VHF Radio interface to IP networks
- MS Teams endpoint via CyberGate service

Features
- SIP VoIP client support
- IP Streaming via HTTP, UDP, RTP, Multicast, Uni- or Broadcast
- Variety of Audio codecs supported (e.g. AAC+, MP3, PCM, G.711, G.722, OPUS …)
- Internet security supported (HTTPS, SRTP, SIPS)
- Low voltage Relay Outputs (2) for example to activate amplifier upon SIP call received
- Dry Contact Inputs (2), expandable via USB for example to establish a connection or to select a target
- Microphone Inputs (2x)
- Line Level Input (mono, unbalanced)
- Audio Output (mono, balanced) or amplified output 1W @8 Ohm
- PoE and 24VDC redundancy powered
Technical Specifications

CPU / Memory
- Barix IPAM400 Processor Module
- Quad-Core ARM Cortex™-A7
- 256 MB DDR3 SDRAM
- 16 MB SPI Flash

Discrete I/O
- On detach. screw terminal block:
  - 1x Normally open relay 30V 0.5A
  - 1x Normally closed relay 30V 0.5A
  - 2x digital dry contact inputs

Operating System
- Embedded Linux based on Yocto

Power interface
- 24 VDC, +/- 20%, 12 Watt max. on detach. screw terminal block
- IEEE 802.3af PoE

Audio input interfaces
- On detach. screw terminal block:
  - Line level input +4dBu max, mono, unbalanced
  - Microphone input, balanced, 18V phantom powered
  - Microphone input, electret, unbalanced, 2.1V bias

Network Interface
- 10/100Mbps auto-sensing
- RJ-45 connector with integrated Link /Activity LED
- IPv4/IPv6 capable
- Protocols: TCP/IP, HTTP, UDP, RTP, SIP, DHCP, Multicast capable

USB Interface
- 2x USB 2.0 type A interfaces

Audio Output Interfaces
- On detach. screw terminal block:
  - Audio output (mono), suitable to drive a speaker or a balanced output (exclusive output).
    - Speaker: 1W @8ohms
    - Line out: symmetric/balanced, non-isolated, with DC offset, 10dBu (unbalanced: 4dBu)
    - Volume level software controlled
  - 3.5mm headphone output

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

IP Audio formats
- FDX/HDX SIP client support
- HTTP(S) and (S)RTP Streaming
- Large variety of codecs can be supported (e.g. MP3, PCM, G.711, G.722, AAC, OPUS)

User Interface
- Web interface for configuration
- 2 x Multicolor LED Status indicators
- Reset & Factory Defaults Button

Mechanical
- Aluminum case, 265 g
- Dimensions 108 x 38 x 78.7mm (4.25 x 1.5 x 3.1 inch) rack and wall mountable using accessories

Warranty
- Two years

Ordering Information
- 2021.9330P MPI400 package
- 2022.9362P MPI400 Flexa PoE Package
- 2022.9372P InformaCast Package
- 2019.3160 InformaCast License
- 2006.9072 Accessories Wall mount bracket
- 2007.9082 Accessories 19" Rack mount

Certifications
- CE, RoHS, FCC

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