# digigram



# PYKO-in Stereo IP Audio encoder

**Key Workflow:** audio over IP encoder for studio to transmitter links (STL), WEB radio, paging,  background music, live announcements, intercom

PYKO-in is a stereo IP audio encoder that can be used in two modes. One mode allows converting the analog audio source into an IP audio stream sent to one or several destinations. Typical applications include STL, WEB radio encoding, background music, and paging. Combined with PYKO-out, PYKO-in is a cost effective solution for establishing IP audio links. Another mode allows using PYKO-in as a mono encoder/decoder; typical applications include intercom over IP.

## At a glance

PYKO-in is a small form factor rack-mountable stereo IP audio encoder or mono IP audio codec, depending on the way it is configured. Used as a stereo encoder, it features two balanced analog mono inputs. Used as a mono codec, it features one balanced analog mono input and one mono balanced mono output.  One of the inputs offers a microphone preamp with phantom power, which is useful when PYKO-in is used for intercom. PYKO-in generates standard RTP streams in G711, PCM, or MPEG L3 audio format and allows for auxiliary data tunneling (serial data and 4 GPI statuses).

> Stereo IP audio encoder, or mono encoder/decoder with mic preamp
> Standard RTP streaming
> WEB radio encoding: Icecast/Shoutcast, MPEG L3
> Control and monitoring through WEB pages, monitoring via SNMP

## Key features

> Two balanced analog inputs, or one balanced analog input and output
> Mic preamp with 12V phantom power on one input, selectable from front panel
> Supports G711, PCM, and MPEG L3 audio formats
> Standard RTP streaming, or Icecast/Shoutcast encoding in MPEG L3
> Auxiliary data tunneling (serial data, 4 GPIOs)
> Unicast, multicast, multi-unicast and multi-multicast (up to six destinations)
> Configuration and monitoring from WEB pages, or through ASCII commands via TCP
> Possibility to start/stop the stream via GPIs
> Front panel headphones mini-jack
> External power supply



## CONFIGURATION

> Size (mm) / weight (g): 140 x 41 x 145 mm  / 434g
> Power supply: External 24VDC +/-20%
> Operating temperature / humidity: 0°C to 55°C / 0% to 70% non condensing

## Balanced analog audio I/Os

> 1 stereo input / 1 mono I/O  in full duplex-mode

- Left input Mic/line with 12V phantom power
- E.I.N (48 kHz, G=39 dB, Z=200 Ohms) <-115 dBm
- Maximum level / impedance
  − Inputs: +4 dBu / +18 dBu / > 10 Kohms
  − Mic level/impedance -2 dBu > 10 kohms
  − Left output (full-duplex mode only): +4 dBu / +18 dBu / < 100 ohms
- Frequency response: 0/-2 dB <20-20000Hz>
- THD + Noise:
  − input: < − 84dB @ -1 dBFS <20-20000Hz>
  − output: < − 84 dB @ -2dBFS  <20-20000Hz>
- SNR: <- 98 dB <20-20000Hz>

## Audio formats

- PCM 16bits, G.711(µLaw/aLaw), G722
- MPEG Layer 3 (VBR up to 192 kBit) (not in full-duplex)

## Connectors

- Analog audio: Terminal block
- Network: 10/100 Mbit Ethernet (RJ45)
- RS232: SubD 9pin male
- GPIOs:
  − 4 GPO , 4 independant contact relays
  − 4 GPI , TTL input 5v/5mA overvoltage and EMC protections
  − Terminal block
- Headphone out: 3.5 mm Jack

## Benefits

- Low price for an STL, or for a WEB radio encoder, but still with high audio quality
- No need for external mic preamp for intercom
- No need to be highly skilled to install and configure it

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