



# High Quality VoIP Intercom

## IPefono HQ

The IPefono HQ is a device designed to provide intercom services using IP network infrastructures ( local, corporate, Internet, ...).

Like all the devices in the IPefono family, it can be integrated in standard VoIP telephony platforms, Call Managers and VoIP PBX, provided that these support SIP (Session Initiation Protocol) or even to manage it just using a standard VoIP phone. It offers advanced features like forwarding calls to a cell phone, the use of Internet accounts, recording communications, multi conferencing, ...

The main feature of the IPefono HQ is the audio quality. It uses the same network bandwidth as similar devices but offers a much clearer signal. In addition, it has the minimum audio delay that VoIP equipment can offer.

Another interesting feature is its excellent energy efficiency. It uses high-performance and low power consumption processors, as well as audio amplifiers with 96 % efficiency.

It has two Ethernet connectors linked by an industrial category Ethernet switch. This means that in many cases, we can connect other devices to the network without another switch or, we can also connect serial Intercoms.

Its external enclosure in a DIN rail box format makes installation extremely simple and requires no mechanical adjustment.

It has outputs for controlling doors, lights, ... It is also possible to connect a camera module to provide video-intercom services.

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## Technical Features

- Power supply: 5V to 24V. Nominal consumption: 1W, maximum consumption with audio and video: 4.5W.
- Industrial Temperature Range **from -40°C to 85°C**.
- Size without enclosure: 90mm x 68mm, with enclosure 90mm x 72mm x 58mm.
- Weight without enclosure: 70g, with enclosure: 130g.
- Class D audio amplifier. Power: 3.2 W, **Energy efficiency: 96%**.
- **Ethernet Switch** with two 100BT Ethernet ports, connecting up to 16 groups VLAN, QoS IPv4/IPv6, Rapid Spanning Tree Protocol ( IEEE802.1d ), IGMP snooping.
- Optional **camera module**: VGA resolution (640x480), QVGA (320x240) or QQVGA (160x120), JPEG compression, up to 10 frames per second in QVGA resolution.
- Configurable hysteresis for the call button.
- **Solid state relay outputs**. Maximum current: 100mA, maximum voltage: 60V, output impedance: 16Ω.
- RS232-TTL and/or synchronous connections for **RFID and magnetic card readers**.
- Connection for a **4x4 matrix keyboard** with background light.
- Independent audio level adjustment for tones, ring signal, conversation, file playback and auxiliary input audio.
- Microphone and auxiliary audio input sensitivity adjustment.
- Multiple algorithms for **echo cancellation**: duplex adaptive, Acoustic Echo Canceller or Push To Talk.
- Use of network bandwidth from 16 Kbps to 64 Kbps (headers not included).
- G711 (3.4 KHz), **G722 (7.1KHz)** and **G726 (3.4KHz)** audio codecs.
- Sampling 110precision: **12 bits**.
- Microphone noise gate with digital filtering.
- IP Protocols: ARP, IPv4, ICMP, IGMP, TCP, UDP, DHCP, DNS, SIP, HTTP, Telnet, RTP, RTCP, SNTP, Modbus TCP, Modbus UDP and Discovery Protocol ( © by ConectaIP ).
- DIN rail module 4 size enclosure.
- Wake on Lan support.

## Functional Features

- It connects with **standard SIP** systems ( PBXs, VoIP gateways, VoIP phones, ... ) and Voice over IP internet services.
- Call forwarding to landline and cellular phones. It is also possible to open barriers and doors from them.
- Alternative call destination if the main call fails.
- **Broadcast mode** to speak to several devices simultaneously .
- **WAV file playback** by activating digital inputs, HTTP commands or the call status.
- Software upgrade, configuration and remote administration with its internal Web server.
- Traces and diagnostics using Telnet .
- Integration with card readers connecting with the access server for access permissions. It can store a white/black list for "no connection" mode operation.
- The "auto configuration mode" allows you to install intercoms without requiring a computer.
- Free software tool available to enable **large scale verification , update and configuration**.
- Another free installation **tool to identify devices** within the local network without requiring IP connectivity, and setting up the main parameters of the device.
- **HTTP JPEG Images server**, up to 10 frames per second with CIF resolution.
- HTTP commands to playback WAV files, play tones, audio test and output activation.
- **Audiosensor** for activating outputs and making intercom calls.

