



# ANNUNCIOM

## 155

## Ruggedized IP Paging, Intercom and VoIP



- **All-in-one solution for Audio over IP transport and distribution**
- **Supports IP standards such as TCP/IP, RTP, SIP, Multicast**
- **Suitable for use in trains, buses, ships, outdoors, industry**
- **IP65 rated, tested to EN50155, suitable for harsh environments**
- **Wide operating range (-40..+70°C), shock and vibration resistant**

The Barix Annunicom 155 is a ruggedized, universal IP Audio device, developed to operate within challenging environmental conditions whether outside or in rolling stock.

With an amplified output suitable to drive 5W into an overhead paging or panel speaker, a sensitive microphone input, selector/contact closure inputs and control output the device is equally suitable for paging, intercom, help point and monitoring applications.

A built-in switch provides two 10/100Mbps network interfaces allowing the daisy chaining of devices.

The universal power input (24..48V) is isolated and well protected allowing the use of the device in both telecom as well as rail applications.

The supported codecs (PCM/uLaw/aLaw/MP3) and range of sample rates (8..48kHz) allow the optimization of the audio quality for the application. Up to CD/Hifi quality can be achieved.

Using standard Barix firmware on the Annunicom 155, the device can operate as a streaming receiver for background music with priority messaging, as a paging or intercom device

within a Paging/Intercom system or as a digital message repeater. With the Barix SIP firmware, the device can operate as part of an IP telephony solution, for example, as an intercom panel in parking barriers, toll gates, as a SOS help point, call box etc.

Being fully EN50155 and GL "Brücke" compliant, the device fulfills the stringent requirements to be used in trains, cars, ships and industrial as well as outdoor installations.

With versatile I/O, full multicast support and internal flash memory for audio messages, the device is suitable for many special applications. Most Barix standard applications (such as the SIP firmware, message repeater etc) can be provided as source code for modifications by system integrators or OEMs. Full custom code can easily be written on the devices in the ABCL programming environment.

### Applications

- **Door and help point intercom system**
- **Security surveillance and alarming**
- **PA, alarming, and paging**
- **Help Points, Emergency Intercom in cars,**

## Technical Specifications

### Electrical

24 to 48 VDC  $\pm$  30%, <60 V, 14 Watt max.  
M12 "A" connector (male)

### Ethernet

2x 10/100Mbps auto, MDI/MDI-X, Link & Activity LEDs per interface, Internal switch, Protocols: TCP/IP, UDP, RTP, SIP, DHCP, M12 "D" connector (female)

### RS-485

300..230'400 Baud asynchronous, 7/8 bit  
+12V, 100mA, fused supply output to external devices  
M12 "A" connector (female)

### Line out

max. 11 dBm @ 600 Ohm, max. 12 dBu (FS), unloaded  
Output impedance 40..45 Ohm, 14 mWatt max  
Values @ 600 Ohm: Freq. response 20 Hz .. 20 kHz (-3dB),  
Dynamic range 80dB, SNR -80dB, THD <0.15% (-3dBFS)\*  
Output level software controllable

### Speaker out

5.5 Watt RMS max @ 8 Ohm  
Values @ 8 Ohm: Freq. response 10 Hz .. 15 kHz (-3dB),  
Dynamic range 82dB, SNR -82dB, THD <0.1% (-3dBFS)\*  
Output level software controllable

### Microphone in

Electret mic, supervised bias power (2.4..4 VDC)  
Frequency response 50Hz ..20kHz (-3dB)\*  
Dynamic range 70dB, SNR -70dB, THD <0.05% (-3dBFS)\*  
input sensitivity software controllable

### Audio formats

MP3, encoding/decoding up to 192/320kbps  
PCM 16bit @8, 16, 22.05, 24, 32, 44.1, 48 kHz  
G.711, uLaw, aLaw (sample rates same as PCM)

### Discrete I/O

2 fully supervised inputs  
1 LED driver output, current limited  
internal temperature sensor  
2 status LEDs (red/green)

### Panel interface

Sub-D 15 connector, all audio and I/O signals

### Mechanical

Aluminum case, 460 g, with mounting wings

\* depends on used codec, best results @48kHz PCM

\*\* 0 - 70% relative humidity, non-condensing

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### Min. mounting space incl. plugs (W x D x H)

230 x 138 x 47 mm (9 x 5.43 x 1.85 inch)

### Dimensions (W x D x H)

130 x 108 x 38 mm (5.12 x 4.25 x 1.5 inch)

### MTBF (calculated according to MIL217F @24V, 40°C)

50.000h (ground mobile device), 140.000h (ground fix device)

## Environmental

### Operating Environment

-40 to +70°C / -40 to 158°F  
0 - 95% relative humidity, non-condensing

### Storage Conditions

-40 to +85°C / -40 to 185°F  
0 - 95% relative humidity, non-condensing

## Certifications/compliant with

### RoHS, FCC, CE, C-Tick, UL (planned)

### Immunity

acc. to EN 55024, EN 50121, EN 61000-6-2, EN 50155

### Emissions

according to EN 55022, GL "Brücke", EN 50155

### Environmental

according to EN 50155

### Product Safety

according to EN 60590

## Ordering Information

### Annunicom I55

**2010.9098**

Device only. Power supply and mating connectors are offered separately as the accessory kit, below

### Annunicom I55 Accessory Kit

**2010.9099**

contains  
- 24V power supply with M12 "A" connector  
- Sub-D 15 connector for Panel interface  
- M12 "A" connector for RS.485 interface  
- M12 "D" to RJ45 ethernet cable

For further information, product manual, application notes, available software, related products etc, please visit <http://www.barix.com>

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