UNIFIED IP AUDIO SOLUTION

YOUR SPECIALIST FOR IP COMMUNICATION SOLUTION



Solution Overview

ZYCOO IP Audio Solution is a comprehensive IP audio communication system built on SIP, streaming media, and MQTT IoT technologies. Our solution supports a range of functionalities, including broadcasting, intercom, telephony, paging, and more.

The architecture comprises an IP audio server, IP audio endpoints, IP audio dispatch console, and IP audio dispatch app. The IP audio endpoints are hardware-based devices such as network speakers, network intercoms, network paging gateways, network power amplifiers, network microphone consoles, and IP phones. The IP audio dispatch console, installed on a computer, and the IP audio dispatch app, compatible with both Android and iOS, are software-based components.

The IP audio server can be deployed on a computer, in the cloud, or through our dedicated IP audio server, the IAS-L100, for on-premises setups. The solution is designed to operate seamlessly over standard intranet or internet networks without requiring specialized equipment or cabling, as shown below.



Solution Features

Background Music

By using ZYCOO IP Audio Solution, users can easily create music playlists with any desired music file combination, then play background music by choosing a specific music playlist for a particular device or group. The stop, volume control, previous/next track features are all supported.

IP PBX Features

Besides the full-featured public address system, ZYCOO IP Audio Solution also has IP PBX features enabled, such as digital receptionist, inbound control, outbound control, click to page, call monitor, call whisper, call split, and so on. Furthermore, users can integrate standard SIP trunking into the system to achieve the outbound features, with no upper limit on the number of SIP trunks.

Video Intercom & Video Linkage

ZYCOO IP Audio Solution can provide video intercom and video linkage features. For example, SIP safety intercom Ei-V05 has a built-in HD camera that provides direct video calls. For all of the Ei-Series, external IP cameras with RTSP support can be integrated with the IP Audio Center. Simply inputting the camera's RTSP address, and the system fetches the real-time streaming when an intercom call is initiated.

Unlimited Paging Groups

Expansion of the paging zone when using the analog system can be difficult and costly. Users can create unlimited number of paging zones, users can create any number of paging zones to achieve zone-based paging, emergency alarms, background music, etc.

Dispatch User Privilege

ZYCOO IP Audio Solution supports an unlimited number of dispatch users, and more than one dispatch user can access the same paging group. With the flexibility of group permission and access level control, the administrator can easily assign different levels of authority to dispatch users. Each dispatch user can operate separately without interfering with other dispatch users, including paging, music broadcasting, conferencing, etc.

Multiple Task Types

By using ZYCOO IP Audio Solution, users are provided with three (3) different types of tasks, including immediate, timetable, and dial-number. As the name suggested, the immediate task would be toggled immediately after the task is set. Timetable tasks can be repeatedly played within the specified time range. While the dial-number task is a pre-set task, user may set the task to play background music, emergency alarms, etc., and use a phone to toggle the task.

No Server Needed

All ZYCOO IP Audio Solution's devices support Multicast and Peer-to-peer (P2P) to share data between devices without the need for a central server. While the devices are used in the same local network, multicast can distribute a single copy of data to an entire group of devices to achieve the broadcasting and paging features. In contrast, P2P provides the ability to call from a single device to another, achieving the feature.

Standard SIP

ZYCOO combines its years of experience in developing communication products, constantly innovates and breaks communication barriers, and integrates different communication products such as telephone, broadcasting, and intercom into the IP Audio Solution. Based on standard SIP protocol, ZYCOO IP Audio Solution is compatible with third-party endpoints or system products.

Network Speakers



SC10 Network Ceiling Speaker | SC15 Network Ceiling Speaker | SW15 Network Cabinet Speaker | SH10 Network Horn Speaker | SH30 Network Horn Speaker | SL30 Network Column Speaker

ZYCOO SC10&SC15 Network Ceiling Speaker and SW15 Network Cabinet Speaker are high efficient, full-range drive units SIP-enabled speakers. Specially designed for indoor purposes, to provide premium sound quality, enhance the audience experience.

SH10 and SH30 are SIP-enabled horn speakers that provide exceptional voices for SIP paging, notification/tone broadcasting, and background music. They are suitable to be deployed in outdoor and other open spaces for public notifications and public safety purposes.

SL30 Network Column Speaker is PoE+ supported, it could cover a wide frequency band to provide high sensitivity, beautiful sound, and a unique listening experience for listeners. As well as the IP65-Enclosure makes the SL30 perfect to work in any outdoor environment.



- **BM11 is a Push-to-Talk Button with Mic. Users need to connect the BM11 to the SW15,SC15 or SH10, and then configure the corresponding functions on the web interface of the endpoint device.**

SIP Protocol | ONVIF | HD Voice | PoE | Built-in Amplifier | Auto Provisioning

	SC10 Network Celling Speaker	SC15 Network Celling Speaker	SW15 Network Cabinet Speaker	SH10 Network Horn Speaker	SH30 Network Horn Speaker	SL30 Network Column Speaker
Speaker Component	4" woofer unit + 1" tweeter unit	5.25" woofer unit + 1" tweeter unit	5.25" woofer unit + 1.5"tweeter unit	1.5"midrange driver unit	2"midrange driver unit	2* 3.25" woofer units + 1" tweeter unit
Power Input	PoE IEEE 802.3at or DC 12V-2A	PoE IEEE 802.3at or DC 24V-2A	PoE IEEE 802.3at or DC 24V-2A	PoE IEEE 802.3af/at or DC 24V-1A	PoE IEEE 802.3at or DC 24V-2A	PoE IEEE 802.3at or DC 24V-2A
Rate Power	8Ω 10W	8Ω 15W	8Ω 15W	8Ω 15W	8Ω 30W	4Ω 30W
Sensitivity	90dB/1m/1W	85dB/1m/1W	85dB/1m/1W	105dB/1m/1W	105dB/1m/1W	82dB/1m/1W
Max Sound Pressure Level	100dB	100dB	100dB	115dB	117dB	97dB
Frequency Range	70Hz – 20KHz	70Hz – 20KHz	70Hz – 20KHz	400Hz – 8KHz	400Hz – 8KHz	100Hz – 20KHz
IP Rating	/	/	/	IP66	IP65	IP65
Dimension	Ø150*205(mm)	Ø240*210(mm)	240*180*150(mm)	Ø220 x 235(mm)	Ø276*277(mm)	100*100*331(mm)
Weight	1.4KG	3.45KG	3.29KG	2KG	2.68KG	2.5KG

Ei Series Network Safety Intercom



Ei-D05 Network Safety Intercom

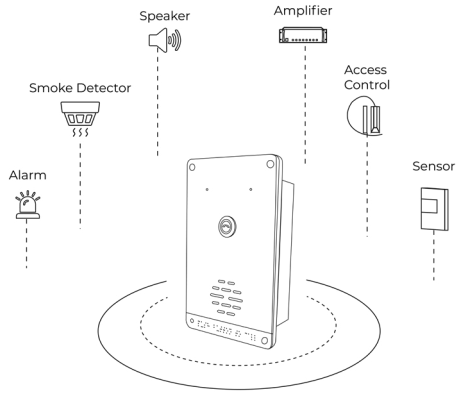
Ei-V05 Network Safety Intercom

Ei-W05 Network Safety Intercom

Ei-A05 Network Safety Intercom

Ei Series Safety Intercom is available in four models designed to address the needs and requirements of various applications and installation types. All models deliver full-duplex communication and secure access control for your VoIP system. Ideal for any setting such as commercial facilities, schools and universities, medical facilities, warehouses, and retail establishments.

There are multiple ways of installing the Ei Safety intercom. It can be flush-mounted and installed alone on any style of cavities, or using an optional accessory of surface mount box is also available. You can use it on any model of Ei Series intercom to surface mount on the wall.



Gesture Activation

Dual Destinations

Video Intercom

Access Control

ONVIF

Audio Out

PoE

	Ei-V05 Network Safety Intercom	Ei-W05/Ei-D05/Ei-A05 Network Safety Intercom
Sensitivity	96±3dB/1M/1W	
Distortion	<1%	
Amplifier	5W Single Channel D-class	
Rate Power	8Ω 5W	
Frequency Range	100Hz~20KHz	
Microphone	-36±2dB	
Music Streaming	MP3 sampling rate 8-48KHz, bit rate 64-320kbps, mono or stereo	
Camera	1280*720@20fps,640*360@20fps	N/A

SQ10 Series Network Square Speaker



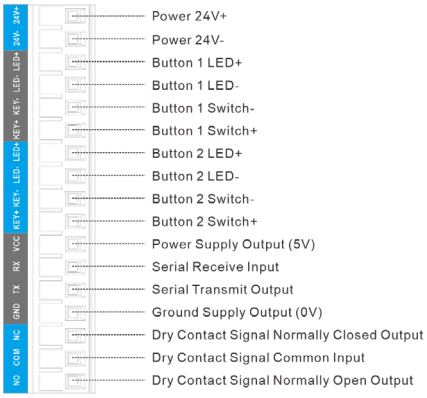
SQ10-B Network Square Speaker



SQ10-T Network Square Speaker

SQ10 Network Square Speaker is an indoor wall-mounted IP speaker, available in two models: SQ10-B and SQ10-T. Both models are equipped with a built-in microphone, allowing operators to engage in two-way communication.

Additionally, SQ10-T model features a programmable LCD screen that displays the date and time when in standby mode, eliminating the need for a separate clock system. SQ10-T also supports customizable text display for daily notifications, announcements, and alerts in emergencies. Its display-flashing feature enhances visibility, ensuring that important information is noticed promptly. This makes it ideal for use in business, education, healthcare, and other scenarios.



SIP Protocol

ONVIF

PoE+

Customizable Display Text

LCD Clock

Peripheral Integration

AI Voice Recognition

	SQ10 Network Square Speaker
Weight	SQ10-B: 3.25KG / SQ10-T: 3.5KG
Speaker Size	4.5 inch
Power Input	PoE IEEE 802.3at or DC 24V-2A
Rate Power	8Ω 10W
Sensitivity	91dB/1m/1W
Max Sound Pressure Level	101dB
Frequency Range	70Hz~20KHz
Display	1920*480 Hign Resolution Color LCD Display
Dimension	300*300*92(mm)

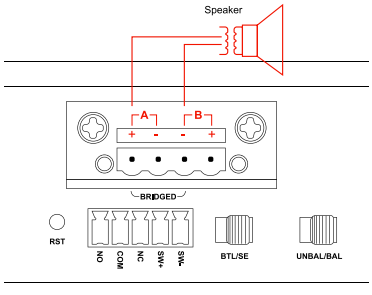
Network Power Amplifier



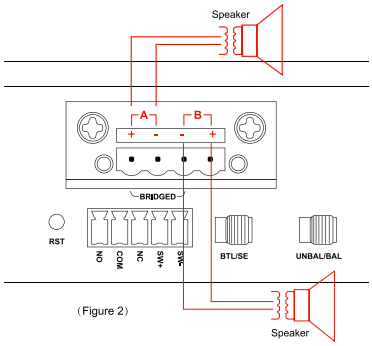
SD260
Network Power Amplifier

ZYCOO SD260 Network Power Amplifier is a high-performance commercial audio power amplifier that utilizes Class-D amplifier technology, delivering clear sound quality and excellent reliability.

SD260 supports various input modes, including 2-ch balanced/unbalanced analog audio, Bluetooth audio, Dante network audio, and SIP audio, making it suitable for a wide range of applications. SD260 offers 2×60W or 1×120W (bridged mode) voltage/constant impedance output. Through the Web GUI, users can easily and flexibly control input/output via the mixer page and adjust audio effects with the equalizer.



(Figure 1)



(Figure 2)

ONVIF

Dante

Bluetooth Audio Input

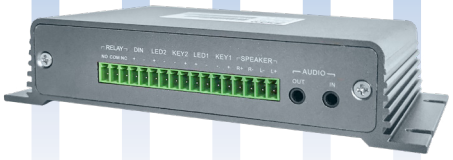
Event Scheduler

Equalizer

Mixer

	SD260 Network Power Amplifier
SNR	97dB(20KHz BW)
Distortion	<0.03%
Audio Output Power	SE Mode: @ 100V 2 x 60W @ 25V 2 x 60W @ 4Ω(Min) 2 x 60W BTL Mode: @ 100VBridge 1 x 120W @ 75VBridge 1 x 120W @ 25VBridge 1 x 120W @ 4Ω(Min) 1 x 120W
Audio Input	Balanced: 2 x 3-Pin Phoenix terminal Unbalanced: 2 x RCA Jack Bluetooth: IPX1 external 2.4G antenna(BT 5.3 compatible) Dante/SIP: Network interface
Dimensions	17.32" x 6.69" x 1.73" (440mm x 170mm x 44mm)
Weight	2.75kg

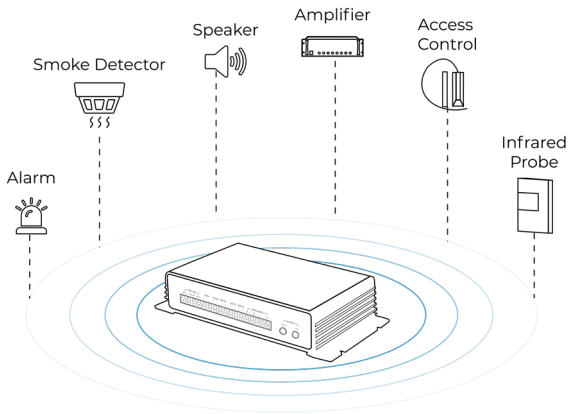
Network Paging Gateway



X10
Network Paging Gateway

ZYCOO X10 Network Paging Gateway is a SIP enabled multifunctional intelligent IP voice communication terminal device. It can convert IP voice signal to analog audio signal and playout through the user's optional speaker output to achieve broadcast or two-way intercom and other IP voice communication functions.

X10 supports access to sensors, sound and light alarms, door magnets, and other peripheral devices to achieve a level of automatic control, security, and other functions, which can be widely used for smart and safe city applications, to increase the efficiency of communication and information sharing, as a result, to improve public safety and citizen welfare.



PoE

ONVIF

Built-in Amplifier

Two-way Voice

Peripheral Integration

Stereo Audio

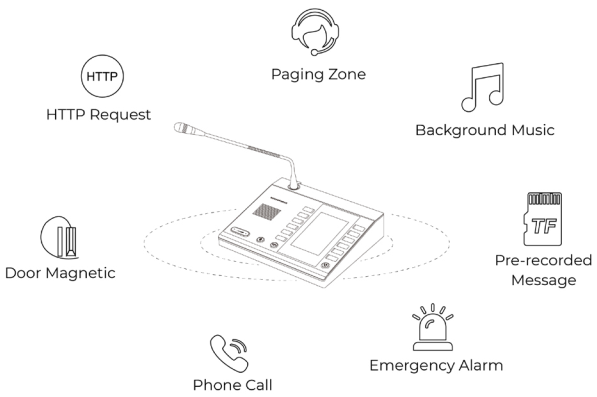
	X10 Network Paging Gateway
Headset Output	3.5mm Jack
Microphone	3.5mm Jack
Volume Control	VOL+ and VOL-, press both to announce IP address
Power Input	DC 12V-3A Jack
Ethernet	ETH0+ETH1, 10/100Mbps, ETH0 with PoE IEEE 802.3at enabled
Dry Contact	NO/NC contacts, max AC 125V-1A, DC 60V-1A
Audio Codecs	G.722, G.711 A-law, G.711 U-law, Opus
Music Streaming	MP3 sampling rate 8 – 48KHz, bit rate 64 – 320kbps, mono or Stereo

Network Dispatch Microphone Console



M100
Network Dispatch Microphone Console

The M100 Dispatch Microphone Console is a versatile and high-performance SIP-enabled device for seamless communication. It features 30 programmable fast keys that can be used for paging, intercom, music playback, outbound phone calls, and emergency alarm activation. With multicast and peer-to-peer technology, it serves as a standalone serverless console for individual and group paging, internal calls, and more. The console also allows users to save music and prerecorded messages in the local storage TF card, ensuring reliable and efficient communication capabilities.



Server-less Paging up to 30 Zones

External Music Collection

Music and Pre-recorded Message

Standard SIP Integration

Versatile Functionality

Easy Installation with PoE

	M100 Network Dispatch Microphone Console
TF Card	32GB
Power Input	DC 12V 1A or PoE IEEE 802.3af/at
Speed Dial Key	10 physical buttons (Use with the screen, support 10*3 rows of programmable buttons)
RS485	Half duplex
Speaker Max Sound Pressure Level	100dB
Speaker Sensitivity	95±3dB / 1W / 1m
Gooseneck Microphone Max Sound Pressure Level	110dB
Gooseneck Microphone Sensitivity	36±2dB
LCD Display Size	4.3 inches
LCD Display Resolution	480p*272p
Dimension	210*190*46 mm
Weight	1.2KG

IP Audio Server



IAS-L100
IP Audio Server

IAS-L100 is a hardware server that pre-installed the ZYCOO IP Audio Center system, providing users the out-of-the-box feature to be ready to use. It can be used with ZYCOO speakers, intercoms, paging gateways, and other equipment to realize IP audio endpoints auto-provisioning and centralized management, mass notifications, background music, audio & video intercom, emergency broadcasting, audio conferencing, IP phone calling more features. In addition, with the use of SIP protocol, it supports third-party SIP-enabled endpoints and SIP system integrations.

HD Music

320Kbps superior quality MP3 music files and streamed media music supported, click to play music or scheduled music playing can be achieved. And different music for different zones is also supported.

SIP Paging

Support multiple ways for live paging by dialing a single device or a group number from an IP phone or a SIP microphone to initiate a live SIP paging and/or using the ZYCOO IP Audio Dispatch Console click and trigger paging.

Auto Provisioning

Using the MQTT IoT protocol, the IP Audio Center can auto-provision, manage, and control local or remote ZYCOO IP audio endpoints within one single system.

SIP Trunk

The IP Audio Center supports SIP trunks for integration and as a result, inbound and outbound phone calls are supported.

Video Linkage

IP cameras with RTSP support can be integrated with the IP Audio Center. Simply inputting the camera's RTSP address, and the system fetches the real-time streaming when an intercom call is initiated.

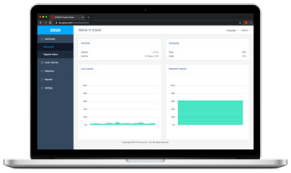
Audio Conferencing

ZYCOO IP Audio Center supports audio conferencing, and it can manage the conference using the IP Audio Dispatch Console. Invite, mute/unmute, kick out participants options are supported.

	IAS-L100 IP Audio Server
SIP Endpoints	100 (Max)
CPU	2.41GHz Intel Processor
RAM	4GB DDR3L
Storage	16GB EMMC + 240GB SSD
Ethernet Interface	2 x 10/100/1000Mbps
USB Interface	1 x USB3.0 + 1 x USB2.0
Rate Power	100~240V/50Hz
Dimension	440*232*44.5mm, Standard 1U Rack
Weight	3.00KG

Software

○ IP Audio Center



• ZYCOO IP Audio Center is the engine of ZYCOO IP Audio Solution. It is a software solution which can be installed on dedicated hardware or cloud- based servers.

• The IP Audio Center manages all IP audio endpoints, including network speakers, intercoms, IP phones, SIP paging gateways, etc. Paging groups (zones), paging schedules, intercom calls, meetings, music/audio files are also managed by the IP Audio Center.

• For simplified control and distributed management, the IP Audio Center provides integration with ZYCOO IP Audio Dispatch Console and the IP Audio Dispatch App for users to manage different paging groups (zones) with different IP audio applications.

Key Features and Specifications	
SIP Accounts	4000 (Max)
Simultaneous Calls	500 (Max)
Simultaneous Conference Attendees	500 (Max)
SIP Paging	500 (Max)
MP3 Files	Unlimited
Playlists	128(Max)
Triggered Paging Tasks	Unlimited
Paging Groups (zones)	Unlimited
Recording Time	Unlimited (Wav format, 1MB/min)

○ IP Audio Dispatch Console



• ZYCOO IP Audio Dispatch Console is a multi-platform (Windows, MacOS and Linux) application dedicated for ZYCOO IP Audio Solution dispatch users.

• With the IP Audio Dispatch Console, dispatch users can broadcast background music, make live SIP paging, create scheduled paging tasks, start and manage audio conference calls, initiate emergency broadcast, monitor IP audio endpoints status and more.

• Multiple dispatch user login is supported and they can work separately without interfering with each other's paging zones. This feature makes the distributed multi-site IP audio system possible.

Key Features and Specifications	
Endpoints Status Monitoring	Supported
Paging	Supported
Alarm	Supported
Alarm List	Supported
Text-to-Speech (TTS) Paging	Supported
Prerecorded Message Paging	Supported
Volume Control	Supported
Tasks	Supported
Music Player	Supported
Log	Supported
Intercom	Supported
Meeting	Supported
Video Intercom Window	Supported

○ IP Audio Dispatch App



• IP Audio Dispatch App is a simple and easy to use mobile application developed for ZYCOO IP Audio dispatch users. The APP allows users of iPhone or Android based devices a mobile alternative to the PC based dispatch console.

• With the IP Audio Dispatch App, background music, pre-recorded message paging, emergency broadcasting and IP audio endpoint status monitoring can be configured and maintained.

• IP Audio Dispatch App is perfect for users who are on the go. It allows users to do the work instantly anywhere and any time.

Key Features and Specifications	
Endpoints Status Monitoring	Supported
Paging	Supported
Alarm	Supported
Alarm List	Supported
Text-to-Speech (TTS) Paging	Supported
Prerecorded Message Paging	Supported
Volume Control	Supported
Tasks	Supported
Music Player	Supported
Log	Supported

FOCUS ON SECURITY, INNOVATION, AND BRILLIANCE

ZYCOO Communications LLC

www.zycoo.com

zycoo@zycoo.com