



**■ Unified IP Audio Solution**

# Overview



ZYCOO IP Audio system is an all-in-one IP audio solution which provides you with a complete IP public address system, an IP intercom system, an IP phone system and more.

The infrastructure could be made up with the IP Audio Center, IP Audio Dispatch Console, mobile IP Audio Dispatch App, network Speakers, SIP intercom devices, SIP paging gateways, IP phones and the connectivities with external amplifiers, ITSPs and third-party SIP servers.

You benefit from full-set of music, tone, notification, public address, voice and video intercom calls, IP telephony and more IP audio requirements that you may need.



## Background Music

320Kbps superior quality MP3 music files supported and playlists can be created with any desired combination. By using the built-in music player of the IP Audio Dispatch Console, background music with a specific playlist to a specific paging group/groups can be started, stopped, and volume control, previous/next track are all supported.



## Live or Scheduled Paging

Live paging can be initiated by simply dialing a group number or click to page from the IP Audio Dispatch Console. For the routine paging requirements, scheduled paging tasks can be created by using timetables selected from the system calendar, the audio could be tones, pre-recorded/TTS messages or music playlists.



## Intercom with Video Support

The infrastructure supports voice and video intercom calls, the IC03 SIP video intercom has built-in camera which provide direct video support, for the IV03, external IP camera can be integrated by simply giving it a RTSP address to fetch the image from the IP camera when intercom call initiated.



## Unlimited Paging Groups

According to the location or different usage of the network speakers, unlimited paging groups can be created to achieve zone-based paging (live or scheduled) and zone-based background music. The same network speaker can be included in one or more paging groups if necessary.



## Multi-site Support

The infrastructure supports multiple dispatch user login, and with the flexibility of grouping and permission control, multi-site IP audio application can be achieved. Each of the sites can operate separately without interfering with other sites, including call dispatching, voice conferencing, SIP paging, music broadcasting, etc.



## IP PBX Features Integrated

Besides full featured public address system, the infrastructure also has IP PBX features enabled. Digital receptionist, inbound control, outbound control, call transfer, call forward, and more IP PBX features are included. Furthermore, integrating with existing IP PBX system using standard SIP trunking is also supported.

# Application Scenarios

## Ambiance Background Music

To create a comfortable and pleasant environment for the customers and visitors, background music would always be the best choice for the shopping centers, retail stores, hotels, restaurants and other commercial premises. ZYCOO IP Audio Solution provides flexible choices for the business operators with all possibilities of background music applications.



## Security

Industrial facilities, warehouses, office buildings, parking garages and some other guarded premises, access control is always required. Voice intercom or video intercom communication between the visitors and the premise owners will help confirming the identities of the visitors before giving clearance to access. Besides, door control is also included, clearance can be given right after the identity confirmations.



## Public Safety

Natural and human-caused disasters are always threats to our public safety. Especially the public spaces where large numbers of people gather and transit. An effective public address system that could be used for early-warning or instructing the public to evacuate from the danger zone is essential. ZYCOO IP Audio Solution provides the possibilities of rapid live announcements and automatically triggered emergency alarms and notifications to a specific area or large areas, to ensure in all circumstances people are informative.



## Tone and Notification

In campuses, public libraries, museums and other public places, tones and notifications are broadcasted to the public audience regularly every day at specific time points. Like the school bells, library and museum entrance notices and regulations. With ZYCOO IP Audio Solution, unlimited timetables and unlimited tones and notifications can be created to make sophisticated broadcasting schedules to satisfy all needs.



## Speakers



**Network Horn Speaker  
SH30**



**Network Ceiling Speaker  
SC15**



**Network Cabinet Speaker  
SW15**

## Specifications

	SC15	SW15	SH30
Speaker Component	Dual-speaker driver design, bass and tweeter units		Midrange driver unit
Amplifier	Built-in 30W Class D Amplifier		
Rated Power	8Ω 15W		DC: 8Ω 30W or PoE: 8Ω 18W
Sensitivity	85dB/1m/1W		105dB/1m/1W
Max sound pressure level	100dB		117dB
Frequency Range	70Hz – 20KHz		400Hz – 8KHz
Coverage Pattern	90°H 90°V 30m <sup>2</sup>	90°H 50°V 30m <sup>2</sup>	50°H 50°V, effective distance 70m
SIP Support	SIP 2.0 (RFC3261)		
Audio Codecs	G.722, G.711 A-law, G.711 U-law, G.729		
Music Streaming	MP3 sampling rate 8 – 48KHz, bit rate 64 – 320kbps, mono or Stereo		
Power	PoE IEEE802.3at or DC24V-2A		
Installation Environment	Indoor	Indoor	-40°C - 70°C (-40°F - 158°F)

## Features

- Dual-speaker driver design – low frequency bass driver unit and high-frequency tweeter driver unit. Provides premium sound quality, enhances the audience experience. (SC15 and SW15)
- Built-in SIP support, can be integrated with ZYCOO IP Audio Center or third-party SIP servers, SIP paging using wideband G.722 codec which provides crystal clear HD voice.
- Standard PoE (IEEE 802.3at) support, simple and easy installation with a single network cable. External power supply can be used if required.
- ZYCOO IP Audio Center auto provisioning support, large-scale installations (local or remote) will be extremely easy and time-saving.
- Music playback through ZYCOO IP Audio Center using streamed media. HD MP3 audio files supported for superior quality of background music.
- With IP65 protection rating and well thermal durability. SH30 is suitable for outdoor installation and operations, even in extreme outdoor environments. (SH30)

## ■ SIP Safety Intercom



**SIP Safety Video Intercom  
IC03**



**SIP Safety Intercom  
IV03**

## ■ Specifications

	IV03	IC03
Rated power		3W
Max Power		4W
Microphone		Single Wideband
SIP Support		SIP 2.0 (RFC3261)
Press-to-Talk/Call Button		1, with blue backlight
Audio Codecs	G.722, G.711 A-law, G.711 U-law, G.729	
Video Resolution	N/A	1920*1080@20fps, 1280*720@25fps
Video Codecs	N/A	H.264
Power	PoE IEEE802.3at or DC12V-1A	PoE IEEE802.3at or DC12V-2A
Door Control	NO/NC Contacts, Max AC125V-1A/DC60V-1A	

## ■ Features

- SIP enabled, can be integrated with ZYCOO IP Audio Center or third-party SIP servers, so the device can be configured to intercom with any desired numbers, internally or externally.
- Support linkage with IP cameras, you can integrate your existing IP camera with the IV03 device to see the visitor image during an intercom call which is supposed to be a voice only intercom.
- ZYCOO IP Audio Center auto provisioning support, large-scale installations (local or remote) will be extremely easy and time-saving.
- Establish a two-way voice communication in hands-free mode by simply pressing the Call button, and G.722 wideband audio codec support provides crystal clear voice quality for the intercom calls.
- Support access control, door strike can be configured as NO or NC, and the open/closed action can be controlled by DTMF signal, sensor input signal and call status events.
- Standard PoE (IEEE 802.3at) support, simple and easy installation with a single network cable. External power supply can be used if required.

## SIP Paging Gateway



SIP Paging Gateway  
X10



SIP Paging Gateway  
X30

## Specifications

	X10	X30
Audio Output	SPEAKER: 2*10W, 8 Ω; HEADSET: 2*40mW, 16 Ω	
Microphone&Headset	3.5mm audio in/out	4 pins for Headset, 2 pins for MIC
SIP Support	SIP2.0 (RFC3261)	
Audio Codecs	G.722, G.711 A-law, G.711 U-law, G.729	
Music Streaming	MP3 sampling rate 8 – 48KHz, bit rate 64 – 320kbps, mono or Stereo	
Keypad Support	Support 4*4 16-key key pad	
LCD Support	UART Serial LCD (Customizable)	
I/O	2*I/O Signal	
Press-to-Talk/Call Button	2*Keys + 2*Key LEDs	
Dry Contact	Max AC125V-1A/DC60V-1A	
Power Input	PoE IEEE802.3at/DC12V-2A	PoE IEEE802.3at/DC12V-3.5A/DC24V-2A
Operating Temperature	-20°C - 50°C (-4°F - 122°F)	-40°C - +75°C (-40°F - 167°F)

## Features

- Designed for smart and safe city applications. Increasing the efficiency of communication and information sharing, improves public safety and citizen welfare.
- Supports 2 programmable buttons which can be used as “Press-to-Talk” keys, with an external speaker and microphone it can do intercom calls for emergency or consulting purposes.
- Built-in amplifier rated at 2x10W dual-channel output, passive loudspeakers can be connected directly for stereo audio output, no external amplifier is needed.
- The X30 SIP paging gateway is designed with industry standards which guaranteed its robustness and adaptability to outdoor harsh conditions from temperature -40°C to +75°C.
- Various peripherals can be integrated, like IP camera, smoke sensors, infrared sensors, door magnet, sound and light alarm which can be used for public safety and security purposes.
- Standard PoE support and auto provisioning support, large-scale installation will be extremely easy and time saving.

# Software



	Description	Specifications
<p><b>IP Audio Center</b></p>	<ul style="list-style-type: none"> <li>ZYCOO IP Audio Center is the engine of ZYCOO IP Audio Solution. It is a software solution which can be installed on hardware or cloud-based servers.</li> <li>The IP Audio Center manages all IP audio endpoints, including network speakers, intercoms, IP phones, SIP Paging gateways, etc. And the paging groups (zones), paging schedules, intercom calls, meetings, music/audio files are also managed by the IP Audio Center.</li> <li>For easy control and distributed management, it provides integration of ZYCOO IP Audio dispatch console and the mobile IP Audio Dispatch APP for users to manage different paging groups(zones) with different IP audio applications.</li> </ul>	<ul style="list-style-type: none"> <li>4000 IP Audio Endpoints (Max)</li> <li>500 Sim. Calls (Max)</li> <li>500 Sim. Conference Attendees (Max)</li> <li>500 Sim. SIP Paging Speakers (Max)</li> <li>200 Playlist (Max)</li> <li>Unlimited Paging Groups (Zones)</li> <li>Unlimited MP3 Audio Files</li> <li>Unlimited Triggered Paging Tasks</li> <li>Unlimited Recording (Wav, 1MB/min)</li> <li>SIP (RFC 3261)</li> <li>G.722 Wideband Audio Codec</li> <li>H.264 Video Codec</li> <li>Streamed Media Background Music</li> <li>And More</li> </ul>
<p><b>IP Audio Dispatch Console</b></p>	<ul style="list-style-type: none"> <li>ZYCOO IP Audio Dispatch Console is a multi-platform (Windows, MacOS and Linux) application dedicated for ZYCOO IP Audio Solution dispatch users.</li> <li>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.</li> <li>Multiple dispatch user login is supported, and they can work separately without interfering each other's paging zones. So, it makes the distributed multi-site IP audio system possible.</li> </ul>	<ul style="list-style-type: none"> <li>Click to call/intercom/page</li> <li>Background music player</li> <li>Click to sound alarm</li> <li>Volume control</li> <li>Call monitoring</li> <li>Call split</li> <li>Call barge</li> <li>Conference management</li> <li>TTS (text to speech) paging</li> <li>Pre-recorded message paging</li> <li>Scheduled paging</li> <li>Auto triggered paging</li> <li>Video intercom</li> <li>And more</li> </ul>
<p><b>IP Audio Dispatch APP</b></p>	<ul style="list-style-type: none"> <li>IP Audio Dispatch APP is a simple and ease of use mobile application developed for ZYCOO IP Audio dispatch users. By using their iPhone or Android phone as a substitute of the PC based dispatch console.</li> <li>With the IP Audio Dispatch APP, background music, pre-recorded message paging, emergency broadcasting and IP audio endpoint status monitoring can be achieved.</li> <li>It is useful when the dispatch users have to leave their dispatch PC or full dispatch function is not critical.</li> </ul>	<ul style="list-style-type: none"> <li>Background music player</li> <li>Tap to sound alarm</li> <li>Volume control</li> <li>TTS paging</li> <li>Pre-recorded message paging</li> <li>Endpoint status monitoring</li> <li>And more</li> </ul>