

SPON



Enterprise Audio System Solution



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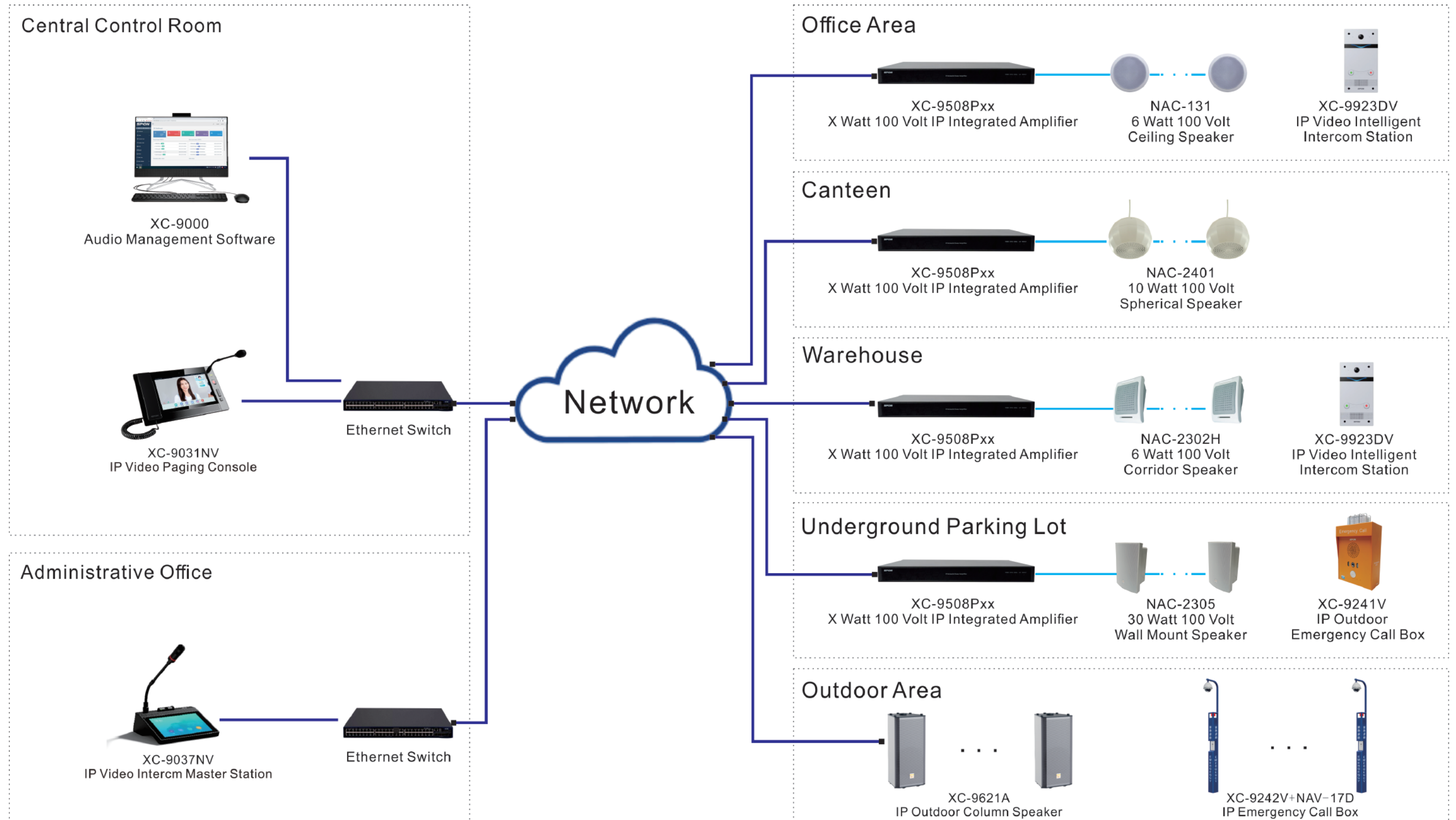
Real-time Communication



Broadcasting and Notifications



Management and Scheduling



System Overview

SPON IP Audio System

SPON's integrated intercom and public address (PA) system solution has been designed with the primary objective of streamlining and enhancing the internal communication protocols within a factory setting. Below is a breakdown of its main features and the advantages they offer:

CONTROL CENTER : CENTRALIZED MANAGEMENT

- - **Software Installation** : The platform software is effortlessly set up on a computer or server located at the management Center.
- - **Centralization** : This centralized model ensures a unified control over all intercom endpoints and broadcasting gadgets.
- - **Real-Time Monitoring** : Administrators can oversee the current state and communication patterns of various terminals in real time.
- - **Voice Dispatch & Broadcasting** : Enables immediate voice transmissions and broadcast commands, ensuring messages are relayed without delays.

INTERCOM SYSTEM : SEAMLESS TWO-WAY COMMUNICATION

- - **Two-Way Voice Support** : Intercom terminals guarantee two-way voice interactions.
- - **Flexible Conversations** : Whether it's a direct one-on-one or a broader one-to-many conversation, the system facilitates all.
- - **Visual Integration** : Real-time voice visual dialog further enhance the communication experience.

PA SYSTEM: FOR BROADCASTING & EMERGENCIES

- - **Specialized Broadcasting** : The system can relay announcements to designated zones in the factory or broadcast to the entire facility.
 - - **Emergency Notifications**: In times of emergencies or important updates, the PA system ensures messages reach every corner swiftly.
- Benefits of SPON IP Intercom & PA System
- - **Prompt Communication**: With SPON's IP-centric model, factories are assured of immediate and precise internal dialogues.
 - - **Enhanced Efficiency**: Improved communication means more synchronized operations, leading to higher productivity.
 - - **Elevated Safety Protocols**: Faster dissemination of crucial alerts ensures a safer work environment and quicker response times.

In conclusion, SPON's integrated system is an invaluable asset for any factory aiming to upgrade its communication infrastructure while ensuring optimal work efficiency and safety standards.

Solution Key Benefits

Simplified and Efficient Audio Solutions



▲ Real-time Communication

This system provides instant and real-time voice communication. Staffs can engage in quick voice conversations through intercom terminals, eliminating the delays and inconveniences of traditional phone or text communication. This enhances communication and collaboration efficiency.

▲ Broadcasting and Notifications

This system enables broadcasting and notifications to all employees or specific areas. Utilizing public address devices, important information can be rapidly conveyed to staffs, thereby enhancing the efficiency and accuracy of information dissemination. Particularly in emergency situations, rapid alerts and instructions can ensure employee safety.



▲ Management and Scheduling

This system facilitates personnel and equipment management and scheduling within the factory. In the control center allows tracking and monitoring of intercom endpoints locations and statuses, providing real-time insights into production conditions which can ensure production operations and personnel and equipment scheduling, thereby enhancing production efficiency and quality.

▲ Confidentiality and Privacy Protection

Factories often deal with sensitive information and private content. We can offer encryption and secure communication capabilities, ensuring communication content remains inaccessible and safeguarded from unauthorized access or leakage. This protects the factory's business secrets and employee privacy.



Solution Applications

Versatile Applications of SPON Audio System

▲ 1. Easy Control Management Server & Paging Microphone in Central Room



1.1. Centralized Management and Control

The service management platform software allows the monitoring center to centrally manage and control the broadcast and intercom communication systems. It enables real-time monitoring of device status, fault diagnosis, and trouble-shooting, ensuring system stability and reliability.

1.2. Real-time or Scheduled Broadcasting

Through software, scheduled background music playback and real-time emergency broadcast notifications can be achieved.

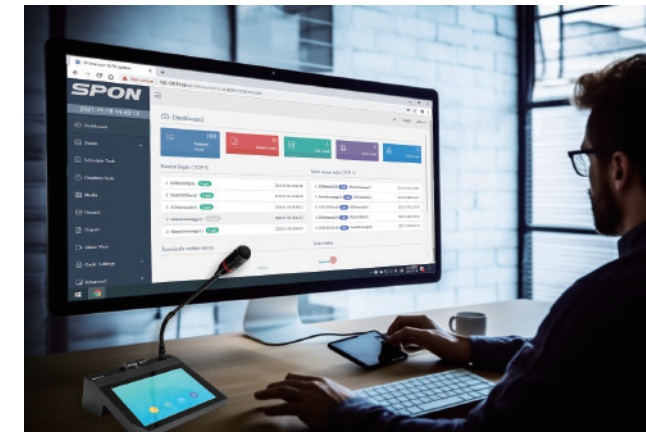
1.3. Real-time Intercom

From the control microphone in the monitoring center, real-time communication with intercom terminals in different areas can be established. This supports one-on-one or mul-party intercom.

1.4. Fire Linkage

It can receive fire alarm signals and trigger emergency broadcasting within the linked area for rapid evacuation.

▲ 2. IP Paging System for Sub-control room



2.1. Real-time and Effective Communication

Broadcasting messages and initiating remote voice intercom can be achieved through the microphone in the control room.

2.2. Multi-party Communication

Mul-parties communication with central control room, workshops, warehouse office and other endpoints in this system.

▲ 3. Public Area

Installed with SPON IP integrated Amplifier and contact with analog ceiling speakers in the indoor areas such as corridors, manufacturing shop, canteen and other places, can be used for playing background music to enhance the cultural atmosphere on a daily basis, it also can be used for emergency notification.



▲ 4. Office Entrance

Installed with SPON Video two-way intercom endpoint at the entrances support video calls for effective communication. It also support access control features, including facical recognition and remote unlocking capabilities.

▲ 5. Outdoor Public Area



Installed with SPON IP outdoor speakers at factory outdoor public area can be used for playing background music to enhance the cultural atmosphere on a daily basis. Additionally, when integrated with cameras, it can enable alarm linkage for security purposes.

SPON IP outdoor horn speaker XC-9615 also support with two-way intercom function, enabling communication during emergency situations.

Installed with SPON One-button emergency call phone in factory park, garage can make one-touch button emergency call to the control room or help center. It also supports direct connection of alarm lights or public address speakers sound and light alarms can be activated in case of emergency situations.

▲ 6. Underground Garage



Generally underground garages have weak cell phone signals, and in case of an emergency, it is impossible to contact people on the ground in time. SPON's Emergency Call Box can be installed on the columns of the garage to monitor the garage remotely, and at the same time, in case of an emergency, employees can contact the security department through the alarm box.

Audio Management Platform XC-9000



▲ KEY FEATURES

UNIFIED MANAGEMENT AND USER INTERFACE

- **B/S software architecture:** centralized management of all IP intercom and PA devices.
- **User-friendly web interface:** all critical system information displayed on the Dashboard.
- **Versatile Events:** Creation and scheduling of timed events, alarm events, and customizable event combinations.
- **Mobile app Management:** PA system management and user account management, including operation authority settings.

PA AND INTERCOM FLEXIBILITY

- **Various Task Form:** Supports multiple real-time PA tasks using server sound card, files, terminals, and speech synthesis.
- **Multiple Calling way:** User-defined call transfer, answer, and call priority settings.
- **Online Database:** Upload functionality for audio files and pre-recorded messages to the media library.
- **Seamless Compatibility:** Integration with third-party VOIP phones using SIP trunk for seamless VOIP system connection.

SYSTEM MONITORING AND INTEGRATION

- **Operation Log:** Call-log and event-log recording and inquiry features for efficient monitoring.
- **API Flexibility:** Standard HTTP API documentation to facilitate integration with other systems and third-party development.

IP VIDEO INTERCOM PAGING CONSOLE

XC-9031NV

▲ TECHNICAL PARAMETERS

Power Supply	DC 12V/3.3A or PoE IEEE802.3af
Video Codec	VGA/720/1080
Configuration Method	Local Settings/Web Page
Frequency Response	25Hz~20KHz
Audio Sampling & Bit Rate	8KHz~48KHz, 16bit/32bit
Network Protocol	SIP (RFC 3261), TCP, UDP, ARP, ICMP, IGMP, HTTP, RTP



▲ KEY FEATURES

DESIGN & COMMUNICATION

- - **Multifunctional Console:** Professional, versatile console supporting various installations (desktop, embedded, wall-mounted).
- - **Interactive Touch Screen & Camera:** Equipped with a 10.2" TFT LCD touch screen and a 13MP HD camera for two-way video intercom.
- - **Versatile Audio Options:** Built-in 3W speaker, unidirectional microphone, and Bluetooth connectivity for diverse intercom options, including hands-free and gooseneck microphone use.

BROADCASTING, CALLING, AND RECOGNITION CAPABILITIES

- - **Zone-Wise PA:** Flexible paging broadcasting across different zones.
- - **Diverse Calling Methods:** Offers Dial, Bookmarks, and Map calling modes.
- - **Enhanced Security:** Intelligent face recognition for enhanced security.
- - **Media Broadcasting and Conference Support:** Pre-recording and file broadcasting to specified terminals, along with full audio/video conference support.

NETWORK MONITORING AND EXTERNAL INTEGRATION

- - **Comprehensive Network Monitoring:** Network state checks for each system terminal.
- - **Emergency and Access Control:** Relay Input/Output interfaces for linking with emergency buttons, detectors, alarms, and electronic locks.
- - **VoIP Integration:** SIP protocol compatibility for seamless integration with VoIP systems like Cisco, Asterisk, and Yealink.

IP POE VIDEO INTERCOM STATION

XC-9133AV

▲ TECHNICAL PARAMETERS

Power Supply	DC 24V/1A or PoE (IEEE802.3af)
Network Protocol	SIP 2.0 (RFC 3261), HTTP, TCP/IP, UDP, ARP, ICMP, IGMP
Audio Sampling Rate	8kHz~44.1kHz, 16bit
Signal-to-Noise (S/N) Ratio	≥84dB
Total Harmonic Distortion	<1%
Interface	1×RJ45 Ethernet Port, 2×Relay Input, 2×Relay Output, 1×Power Input



▲ KEY FEATURES

HIGH-QUALITY DISPLAY AND CAMERA

- - **High-Resolution Touchscreen:** 7-inch high-definition capacitive touch-screen with 800×1280 resolution.
- - **Advanced Camera Technology:** Built-in 2 MP low illuminance, wide dynamic dual camera.

ADVANCED COMMUNICATION AND CONNECTIVITY

- - **Full Duplex Audio Processing:** Digital audio processor for full duplex communication with echo cancellation.
- - **Versatile Calling Options:** Multiple call modes including double virtual buttons, virtual numerical dialpad, and call list.
- - **Independent Operation:** Offline calling capabilities without server dependency.
- - **SIP Protocol Integration:** Standard SIP protocol support for easy integration with mainstream SIP PBX systems (Yeastar, Asterisk, Cisco, etc.).

SYSTEM INTEGRATION AND OUTDOOR SUITABILITY

- - **Flexible Connectivity:** Relay I/O port for connecting to third-party external equipment.
- - **Remote System Management:** Remote management and online upgrading features.
- - **Outdoor-Ready Design:** Designed for outdoor use with a protection level of IPX5.

NETWORK VIDEO INTERCOM MASTER STATION XC-9037NV



▲ TECHNICAL PARAMETERS

Power Supply	DC 12V/1.5A
Camera	2MP
Video Codec	VGA/720/1080
S/N (Signal-to-Noise) Ratio	≥82dB
Audio Sampling & Bit Rate	8kHz-44.1kHz, 16bit, 8kbps-320kbps
Frequency Response	40Hz-18kHz
Network Protocol	SIP (RFC 3261), HTTP, TCP/IP, UDP, ARP, ICMP, IGMP
Configuration Method	Local Settings/Web Page
Mounting Method	Desktop
Interface	1×RJ45 Ethernet Port, 1×USB 2.0, 1×Line Input, 1×Line Output, 1×Relay Input, 1×Relay Output

▲ KEY FEATURES

INTERACTIVE DISPLAY AND CAMERA FEATURES

- – **7-Inch Touchscreen:** User-Friendly Interface For Easy Interaction.
- – **200W HD Camera:** Equipped With Physical Privacy Protection.

COMMUNICATION TECHNOLOGIES

- – **Full-Duplex Visual Intercom:** Enables Effective Two-Way Visual Communication.
- – **Noise Reduction Algorithm:** Enhances Audio Quality For Clearer Communication.
- – **Remote Monitoring Capabilities:** Ability To Check The Status Of The Terminals, Including Login And Intercom Status.

BROADCASTING AND CUSTOMIZATION

- – **Flexible Broadcasting Options:** Supports Broadcasts To All Areas, Specific Zones, Or Individual Terminals.
- – **Multiple Broadcast Formats:** Including Audio Files, Pre-Recorded Messages, And TTS Options.
- – **Emergency Broadcast System:** One-Touch PA Across All Terminals.
- – **Customizable Ring Tones:** Personalize Ringtones For Calls And Broadcasts.

NETWORK HORN SPEAKER XC-9615



▲ TECHNICAL PARAMETERS

Power Supply	DC 24V/2.7A or PoE (IEEE802.3af)
Power Consumption	≤65W
Rated Power Output	30W(at DC 24V/2.7A powered) 22W (at PoE+ powered) 15W (at PoE powered)
Network Protocol	SIP 2.0 (RFC 3261), FTP, HTTP, TCP/IP, UDP, ARP, ICMP, IGMP
Maximum SPL	97dB±3dB
S/N (Signal-to-Noise) Ratio	≥80dB
Audio Encoding	MP3/PCM/ADPCM/G711.a/G711.u/G729
Frequency Response	100Hz-18kHz
Interface	1×RJ45 Ethernet Port, 1×Power Input
IP Rating	IP65

▲ KEY FEATURES

CONNECTIVITY & SYSTEM INTEGRATION

- – **Multicast Addresses:** 10 Multicast Addresses For Paging From SIP Phones.
- – **Server Efficiency:** Multicast Scalability Saves SIP Account Resources.
- – **SIP Compatibility:** Standard SIP Protocol For Easy Integration With Yeastar, Asterisk, Cisco.
- – **Onvif Compatibility:** Onvif Protocol Compatible For Third-Party Monitoring System Integration.

AUDIO MANAGEMENT & NETWORK FUNCTIONALITY

- – **Content Management:** Manages Background Music, Emergency Pages, And Alarms From SPON.
- – **Adaptive Volume:** Dynamic Volume Control Adapts To Ambient Noise.
- – **Power Option:** PoE/PoE+ Support For Versatile Installation.
- – **Remote Management:** Remote Management And Online Upgrades.
- – **Two-Way Intercom:** Two-Way Communication With SIP Telephones/Intercoms.

NETWORK OUTDOOR WALL MOUNT SPEAKER

XC-9621

▲ TECHNICAL PARAMETERS

Power Supply	DC 24V/1.5A or PoE (IEEE802.3af)
Rated Power Output	30W (at DC 24V/1A powered) 15W (at PoE powered)
Network Protocol	TCP/IP, UDP, ARP, ICMP, IGMP
Maximum SPL	97dB±3dB
Power Consumption	≤3W (Standby)
Operating Temperature, Humidity	-20°C to 50°C, 10% to 90% RH (non-condensing)
Frequency Response	100Hz-18kHz



▲ KEY FEATURES

ELEGANT DESIGN & STRONG BUILD

- - **Compact Wall-Mount Structure:** Stylish and suitable for various environments.
- - **Aluminum Casing:** Durable, waterproof, and designed for diverse settings.

ADVANCED SOUND TECHNOLOGY

- - **Built-in Class-D Amplifier:** Delivers up to 30W for powerful sound.
- - **Versatile PA:** Supports network broadcasting, local amplification, and Bluetooth connectivity (APP required).

CONNECTIVITY AND CONTROL

- - **RJ45 Port:** Ensures easy network access across segments and routers.
- - **Dual Management Modes:** Network and Bluetooth configuration options available (APP needed).
- - **Alarm Input:** Triggers server tasks for immediate alerts and announcements.
- - **Remote Management:** Equipped with remote management and online upgrading capabilities for ongoing system optimization.

IP NETWORK INTELLIGENT INTERCOM

XC-9923DV

▲ TECHNICAL PARAMETERS

Power Supply	DC24V/1A
Power Consumption	Standby Power Consumption: <3W Total Power Consumption: ≤6W
Controlled Power Output	Voltage: 12V, Maximum Current: 0.5A
Network Chip Speed	10/100Mbps
Audio Sampling, Bitrate	8kHz to 44.1kHz, 16bit, 8kbps-320kbps
Network Communication Protocols	TCP/IP, UDP, ARP, ICMP, IGMP, SIP, HTTP
Camera	Single 1080P Camera



▲ KEY FEATURES

ROBUST DESIGN & ADVANCED IMAGING

- - **Sturdy Panel:** 6mm thick aluminum with anti-tamper features.
- - **HD Camera:** 1080P HD wide-angle (>130°) with H.264 encoding, light suppression, low-light compensation, and infrared capabilities.

COMMUNICATION AND SECURITY FUNCTIONS

- - **Dual-Button Interface:** Simplified for calling and emergency alarms, supporting full-duplex intercom.
- - **Superior Audio System:** 3W speaker and microphone for clear broadcasts and hands-free communication.
- - **Security Alerts:** Tamper alarm for unauthorized disassembly and local facial recognition support.
- - **Alarm and Control Integration:** Includes output for lights or locks and input for additional alarm sensors.

NETWORK COMPATIBILITY AND POWER

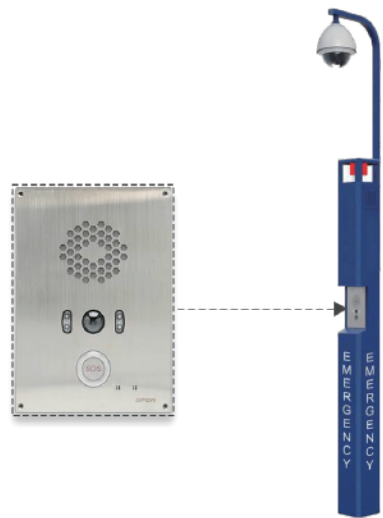
- - **Comprehensive Compatibility:** Supports standard open SIP for integration with VOIP systems; POE enabled.
- - **RJ45 Port:** Ensures easy and versatile network connections across different segments and routers.

IP EMERGENCY CALL BOX

XC-9242V

▲ TECHNICAL PARAMETERS

Power Supply	DC 24V/2.7A
Network Protocol	SIP 2.0 (RFC 3261), HTTP, TCP/IP, UDP, ARP, ICMP, IGMP
Audio Sampling Rate	8kHz-44.1kHz, 16bit
Transmission Bit Rate	8kbps-320kbps
Video Coding	VGA/720/1080P
IP Rating	IPX5
Weight	5kg



▲ KEY FEATURES

DURABLE DESIGN AND SAFETY MECHANISMS

- - **All-Weather Metal Casing:** IPX5-rated for outdoor durability.
- - **Safety Features:** Includes surge and lightning protection with automatic recovery.

COMMUNICATION AND ALERT SYSTEM

- - **Easy Call Function:** Single-button calling to server-set targets for efficient communication.
- - **Integrated Warning System:** Compatible with the NAC-17D alarm column with a warning light for intercom alerts and monitoring center control.

AUDIO-VISUAL FEATURES AND AMPLIFICATION

- - **Audio Equipment:** 10W speaker and microphone for hands-free communication and broadcast reception.
- - **Amplifier and Camera:** 40W digital amplifier module for external speakers; 1080P wide-angle camera with H.264 encoding for visual intercom.
- - **Network Integration:** ONVIF protocol for NVR connection; standard SIP protocol support for VoIP systems like Asterisk.

CONNECTIVITY AND ADDITIONAL FEATURES

- - **Server-Independent Operation:** Capable of offline intercom functionality.
- - **Security Alerts:** Noise level monitoring and anti-tampering alarms.
- - **Multiple Inputs and Outputs:** Includes alarm inputs, controlled power output for driving warning lights, and switch alarm output for device linkage.

IP OUTDOOR EMERGENCY CALL BOX

XC-9241V

▲ TECHNICAL PARAMETERS

Power Supply	DC 24V/2.7A
Network Protocol	SIP 2.0 (RFC 3261), HTTP, TCP/IP, UDP, ARP, ICMP, IGMP
Audio Sampling Rate	8kHz-44.1kHz, 16bit
Transmission Bit Rate	8kbps-320kbps
Power Consumption	≤60W
IP Rating	IP66
S/N (Signal-to-Noise) Ratio	≥80dB
Frequency Response	100Hz-20KHz (MP3)



▲ KEY FEATURES

DURABILITY AND ADVANCED COMMUNICATION

- - **Robust Build:** Waterproof metal shell designed for lasting durability.
- - **Efficient Communication:** One-touch call functionality for easy intercom access and hands-free operation.
- - **Enhanced Visual Capability:** HD camera equipped with infrared lighting for clear video intercom.

SUPERIOR AUDIO AND PROTOCOL SUPPORT

- - **Quality Sound System:** Includes built-in speakers and a digital amplifier for external audio connections.
- - **Protocol Compatibility:** Fully supports SIP for VOIP systems and ONVIF for seamless NVR integration.

RELIABLE CONNECTIVITY AND SAFETY FUNCTIONS

- - **Emergency Preparedness:** Features alarm inputs and a DC12V output for swift emergency responses.
- - **Flexible Networking:** Equipped with an RJ45 port, ensuring broad network compatibility and integration.

IP WINDOW INTERCOM KIT DWT-6502AB



▲ TECHNICAL PARAMETERS

Power Supply	DC 12V/1.5A
Network Protocol	TCP/IP, UDP, ARP, ICMP, IGMP,FTP
Audio Codec	PCM/AAC
Audio Sampling Rate	8kHz~32kHz
S/N (Signal-to-Noise) Ratio	≥90dB
Interface	1×RJ45 Ethernet Port, 1×Power Input , 1×Recording Port , 1× external and internal connector

▲ KEY FEATURES

DESIGN & USABILITY ENHANCEMENTS

- - **Touch button:** Features a noiseless, full-touch button design for easy cleaning and disinfection.
- - **Cable Management:** Integrated system for a neat, clutter-free work-space.
- - **Sleek Metal Design:** Professional cavity structure that prevents resonance for enhanced device performance.

AUDIO QUALITY & TAILORED SETTINGS

- - **Advanced Sound Technology:** Intelligent sound source detection with ambient noise reduction and automatic volume adjustment.
- - **Customizable Audio Modes:** Three scene modes to fine-tune audio quality in different environments.
- - **Pure Sound Output:** Specialized design ensures natural and undistorted sound.

CONNECTIVITY & OPERATIONAL FUNCTIONALITY

- - **Unified Cable Solution:** Combines power, network, and recording functionalities in one cable.
- - **FTP Voice Messaging:** Supports personalized voice messages for improved customer interaction.
- - **Recording Output Interface:** Facilitates integration with third-party devices.

NETWORK INTEGRATED AMPLIFIER XC-9508



▲ TECHNICAL PARAMETERS

Power Supply	AC 100V~240V 50/60Hz
Network Protocol	SIP 2.0 (RFC 3261), FTP, HTTP, DHCP, TCP/IP, UDP, ARP, ICMP, IGMP
Audio Encoding	MP3/PCM/ADPCM/G711.α/G711.u/G729
Temperature & Humidity	-10 C ~ +50 C, ≤90%RH (No Frost)
Frequency Response	60Hz~18KHz
THD (Total Harmonic Distortion)	≤0.5% at 1kHz, 1/2 rated output
Speaker Output	70V/100V (Constant-Voltage)

▲ KEY FEATURES

DESIGN & AMPLIFICATION FEATURES

- - **Efficient 1U Rack Design:** Compact and robust, fitting seamlessly into various setups.
- - **Powerful Class-D Amplifier:** 130W digital amplifier, optimized for 100V loudspeakers.
- - **Maintenance Indicators:** Front panel equipped with multiple status lights for ease of maintenance.

SAFETY & STORAGE CAPABILITIES

- - **Advanced Protection Circuit:** Shields against overload, overheating, and lightning.
- - **Enhanced Storage:** Large capacity for storing and updating tasks and alarm files remotely.

CONNECTIVITY & SYSTEM INTEGRATION

- - **VoIP System Compatibility:** Supports SIP protocol for seamless integration with systems like Yeastar, Asterisk, and Cisco.
- - **Independent Offline Broadcasting:** Capable of functioning without a server.
- - **Voice Announcement Reception:** Compatible with live announcements from third-party VoIP and SPON management software.
- - **Fire Alarm System Connection:** Includes Relay I/O port for integration with external fire alarm systems.

ANALOG CEILING SPEAKER

NAC-131

▲ TECHNICAL PARAMETERS

Speaker Unit	1×6" Paper Cone Full Range Speaker
Rated Power Output	3W/6W
Input Voltage	100V
Sensitivity	93±3dB
Frequency Response	100-15KHZ
Ceiling Cut-out	Φ170mm
Dimensions	Φ188×76mm



▲ KEY FEATURES

QUALITY SOUND AND EASY INSTALLATION

- - **Material:** Features composite speaker cones for clear, pleasing sound quality.
- - **Design:** Strong and convenient active clip design for easy installation.
- - **Durability:** Enhanced with a composite suspension edge and damping treatment to extend the speaker's lifespan.
- - **Application:** Specifically designed for ceiling mounting.

EFFICIENT POWER CONNECTION

- - **Direct Amplifier Link:** Connects directly to a power amplifier's 100V line output.
- - **Versatile Power Options:** The 100V transformer on the speaker allows for easy power selection via primary winding connection terminals.