

SPON



Tourist Attractions Audio System Solution



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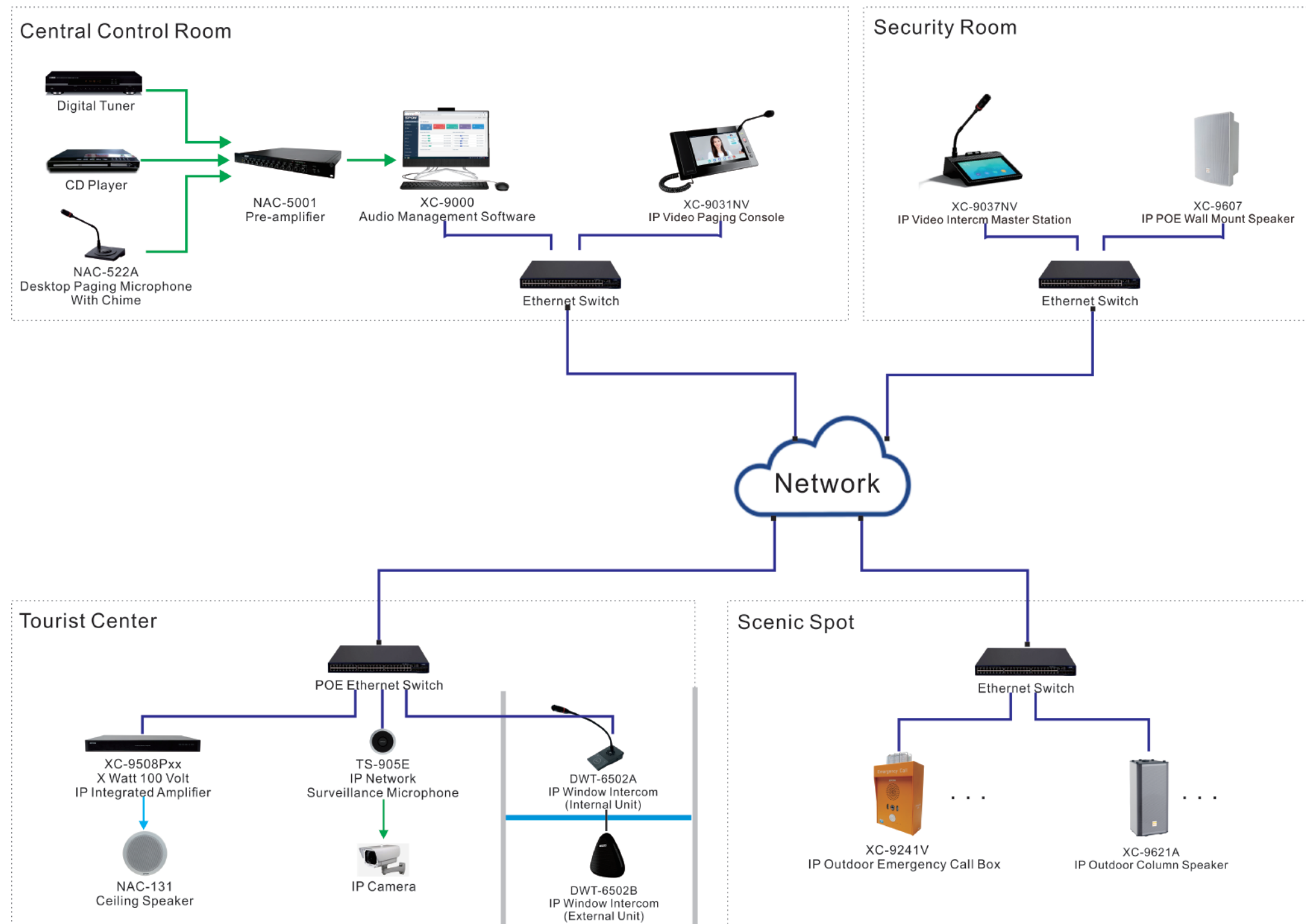
User-friendly Design



Superior Audio-Video Quality



Adaptable Control



Solution Key Benefits

Simplified and Efficient Audio Solutions

▲ User-friendly Design

With a clear workflow and intuitive interface, the system is tailored to diverse user requirements, ensuring easy and efficient use.

▲ Superior Audio-Video Quality

Leveraging H.264/H.265 video encoding and Spon's proprietary audio-video techniques, the system delivers real-time, HD imagery and crisp sound.

▲ Cost-effective and Robust

Devices within the system can serve multiple roles, reducing redundancy. For example, an IP control console can function both as a broadcast microphone and an intercom. Plus, its embedded system design offers protection against virus threats.

System Overview

SPON IP Audio System

SPON's Smart IP PA and Intercom Solution for tourist attractions delivers high-definition audio and video, ensuring efficient and economical management tailored for user ease. Rooted in SPON's audio-video technological prowess, it integrates two main subsystems: the IP Public Address System and the IP Intercom System. This solution enhances communication and visitor experiences at tourist sites.

▲ Adaptable Control

With multi-level authorization, the system can delegate varying control depths based on roles. While an emergency center might have full access, regional units might be limited to their jurisdiction. Moreover, higher authorities can override systems for pressing commands, ensuring prompt responses in urgent situations.

Solution Applications

Versatile Applications of SPON Audio System

▲ 1. Control Room

Located in the scenic area's monitoring center, the IP PA control center utilizes computer network transmission, bypassing space and distance limitations and allowing two-way digital communication. The system, based on a B/S architecture, includes an IP video paging console in the control hub. Through tailored permissions, it permits broadcasts in any specific zone. In emergencies, the networked visual control host provides prompt aid to tourists.



▲ 2. Security Room

In the security room, IP video paging consoles are stationed to address emergency calls from front line assistance points. They offer swift responses in crisis situations, guiding on-site staff in emergency management. Furthermore, staff and leadership can leverage a mobile app for broadcasting and initiating intercom conversations.

▲ 3. Outdoor Area of the Scenic Spot

In the ticketing zone, entrances, and main routes of the tourist site, IP Outdoor Column Loudspeakers are paired with monitoring points. These loudspeakers broadcast safety guidelines for tourists, prevention measures, ticket price details, and more. Additionally, SPON's intercom systems are positioned outdoors. If visitors need assistance from the central command or security room, they can directly contact the control or security room for support.



▲ 4. Outdoor Emergency call



In outdoor settings, tourists might face dangers during their visits. SPON's emergency call boxes, XC-9241 and XC-9242, allow tourists to instantly contact security with one-touch emergency. Equipped with an HD camera, they support video intercom with security room devices, providing real-time visuals. Additionally, with two alarm outputs, they can detect and alert disturbances like loud arguments to the server.

▲ 5. Indoor Area of the Scenic Spot



Indoors, we can install ceiling speakers, allowing for the playback of background music. Additionally, in case of emergencies, these speakers can be used to broadcast urgent messages to effectively communicate important information.

In scenic indoor leisure room or public areas, SPON's IP integrated Amplifier XC-9508 paired with the indoor ceiling speaker NAC-131 provides attendees with a high-quality audio experience. From background music to emergency broadcasts, it ensures clear and reliable sound transmission, all while boasting a user-friendly design and efficient power output.

▲ 6. Counter of park entrance



At park entrances where tourists purchase tickets or seek information, the SPON window intercom DWT-6502 facilitates clear communication for staff. Its exterior unit functions as both a speaker and a microphone, capturing visitor voices with clarity. The DWT-6502 also features one-touch scene mode adjustment, allowing sound intake to be modified based on ambient noise levels. Moreover, SPON's window intercom supports multi-party communication, enabling multi-way discussions between various ticket counters or information desks when needed.



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 Paging Console XC-9038N



▲ TECHNICAL PARAMETERS

Power Supply	DC 12V/1.5A
Audio Sampling Rate	8Khz~44.1Khz
Frequency Response	100Hz~16kHz
S/N (Signal-to-Noise) Ratio	≥80dB
Network Protocol	SIP (RFC 3261), HTTP, TCP/IP, UDP, ARP, ICMP, IGMP, FTP
Configuration Method	Local Settings/Web Page
Mounting Method	Desktop
Dimensions	144×144×34mm

▲ KEY FEATURES

BUILD AND INTERFACE

- - **Durable Design:** High-grade aluminum alloy shell.
- - **High-Definition Screen:** 4" digital capacitive touch screen with 480×480 resolution.

AUDIO AND COMMUNICATION TECHNOLOGIES

- - **Advanced Audio Tools:** Built-in 3W loudspeaker, unidirectional condenser microphone, and digital audio processor.
- - **Mixing Capability:** Integrated console for mixing 5 audio channels, including MIC, AUX, Bluetooth, and USB.

NETWORKING AND SYSTEM INTEGRATION

- - **Web and Mobile Management:** Built-in web server for 30 IP endpoints for zone configurations.
- - **Standard Protocols and Connectivity:** Supports SIP, RJ45 Ethernet port, and relay input for emergency systems.

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.

NETWORK CEILING SPEAKER

XC-9610

▲ TECHNICAL PARAMETERS

Power Supply	DC 24V/1A or PoE (IEEE802.3af)
Network Protocol	SIP 2.0 (RFC 3261), FTP, HTTP, TCP/IP, UDP, ARP, ICMP, IGMP
Audio Encoding	MP3/PCM/ADPCM/G711.a/G711.u/G729
Power Consumption	≤25W
Maximum SPL	97dB±3dB
Interface	1×RJ45 Ethernet Port, 1×Power Input



▲ KEY FEATURES

PERFORMANCE AND ENCODING

- - **High-Speed Processing:** Employs a high-speed, industrial-grade dual-core (ARM+DSP) chip for superior processing power.
- - **Clear Voice Encoding:** Features versatile voice encoding with both narrowband (G.711a/u) and broadband (G.722) options for crystal-clear voice paging.

CONNECTIVITY & SYSTEM INTEGRATION

- - **SIP Phone Paging Support:** Supports receiving paging from SIP phones through 10 dedicated multicast addresses.
- - **Efficient Multicast Scalability:** Incorporates a multicast scalable function, efficiently saving SIP account resources.
- - **SIP Protocol Integration:** Fully compatible with standard SIP protocols for seamless integration with leading SIP PBX systems like Yeastar, Asterisk, and Cisco.

AUDIO MANAGEMENT & NETWORK FUNCTIONALITY

- - **Versatile Audio Functions:** Facilitates background music, emergency paging, and alarm signals from the SPON management system.
- - **Adaptive Volume Control:** Features dynamic volume control that automatically adjusts based on ambient noise.
- - **Flexible Network Power Options:** Offers flexible deployment with PoE or PoE+ interface support.

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).

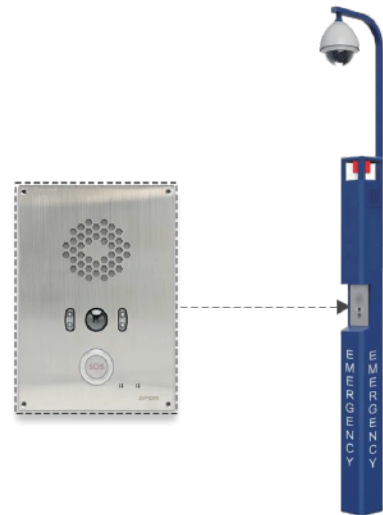
CONNECTIVITY AND CONTROL

- - **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 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.a/G711.u/G729
Temperature & Humidity	-10℃ ~ +50℃, ≤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.