It is our assignment to guarantee a comfortable audio experience and
at the same time provide creative solutions for users all around the world.

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IP NETWORK
PUBLIC ADDRESS SYSTEM
2022-2023

Guangdong Takstar Electronic Co., Ltd.

COMPANY INTRODUCTION

Established in 1995, Takstar is a leading manufacturer in the electro-acoustic industry. The company devotes itself to providing you with the best possible audio processing solutions.

Our product range has since grown into a diverse array of professional microphones, headphone sets, voice amplifiers and integrated applications. This way, we help the user fulfill their dream of enjoying high-quality entertainment and become their trustworthy partner for innovative technology and top-level products. Being of international reputation and market influence, we combine R&D, design, manufacturing, sales and service on our mission to assure continuous development of the industry.

Takstar's production base boasts up to 210,000 sq. meters with 2,500 employees, complete processing workshops and highly advanced equipment.

Takstar Industrial Park
covers an area of 30,000m².

OUR TOP PRIORITY

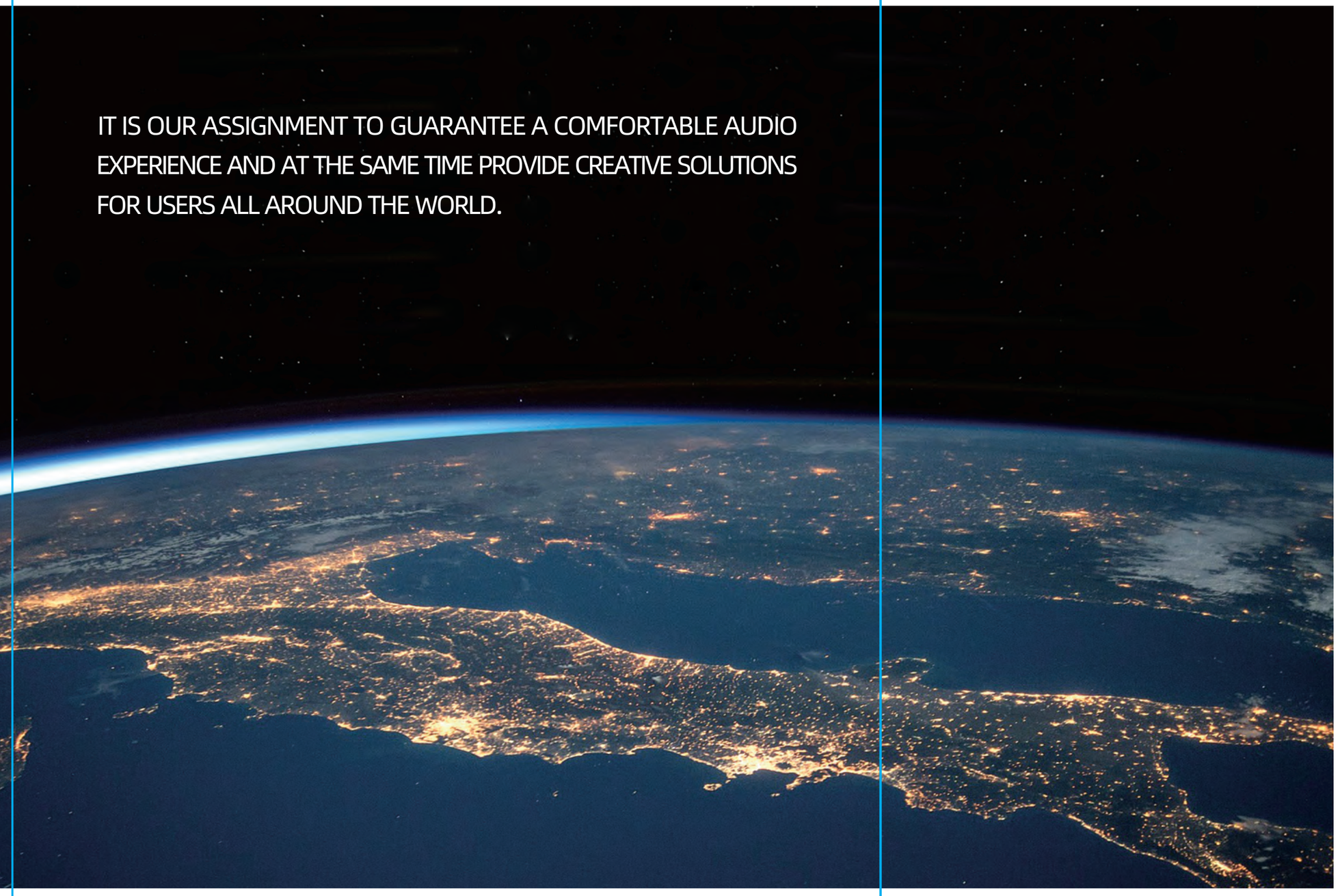
It is our assignment to guarantee a comfortable audio experience and at the same time provide creative solutions for users all around the world.

COMPANY CHALLENGES

Innovation Procedural Optimization Strict Quality Control Satisfy Customers

Takstar Innovation Park
covers an area of 180,000m².

IT IS OUR ASSIGNMENT TO GUARANTEE A COMFORTABLE AUDIO EXPERIENCE AND AT THE SAME TIME PROVIDE CREATIVE SOLUTIONS FOR USERS ALL AROUND THE WORLD.



CONTENTS

Workshop Facilities

Takstar's manufacturing base has processing and production capabilities including a central laboratory, a soundproof B&K anechoic chamber, as well as various workshops for SMT, wireless electronics, professional condenser microphones, cartridges, speaker cabs, diecast metal parts, printing and packaging. We make good use of over 10,000 sets of advanced manufacturing and automated production equipment, over 500 sets of advanced testing equipment, a modern ERP system and state-of-the-art quality control.

Right now, our team surpasses a number of 2,500 technicians who serve in each business field and more than 100 top-level R&D engineers. Our products range from microphones of various kinds up to headphone amps, integrated applications and audio systems, all with huge annual production capacities.

Production Line

SMT Workshop

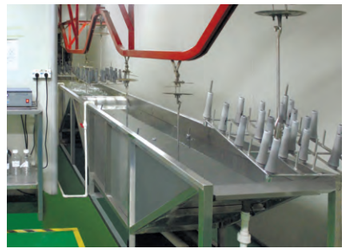
Dust-Free Capsule Workshop

Wave Soldering Machine

CNC Horizontal Injection Molding Machine

High-Accuracy CNC Lathe

CNC Horizontal Die-Casting Machine



Full Automatic Ultrasonic Cleaning Line

Dust-Free Automatic Spray-Painting Flow Line

Automatic Pressing Machine

Automatic Screwing Machine

Laser Marking Machine

Testing Equipment

Takstar has established strict quality management in accordance to ISO9001:2008. The central laboratory of over 400 sq. meters has 100+ professional QC staff working with advanced testing equipment and utilizing different, highly demanding ways of scientific inspection.

Not only does that cover electro-acoustic testing, but also tests for environmental protection, reliability and electromagnetic interference as well as multiple state-of-the-art anechoic chambers and highly advanced Danish B&K / American AP test systems to guarantee premium-quality audio properties of our products.

Starting with incoming stock material, everything is checked in a strict step-by-step manner by our QC staff: purchase of raw material, component processing, manufacturing, storage and, finally, product delivery.

Anechoic Chamber

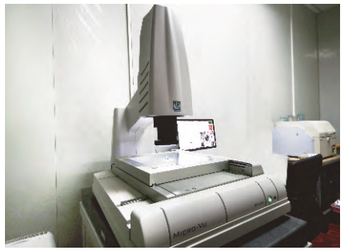
Central Laboratory

Audio Precision

B&K Analyzer

Electroacoustic Instrument

X-Ray Fluorescence Tester



3D Measuring Instrument

Temperature & Humidity Testing Machine

Drop Test Equipment

Bluetooth Headset Acoustic Auto-Test System

Bluetooth Headset RF Auto-Test System

Bluetooth Basic Function Test System

It is our assignment to guarantee a comfortable audio experience and at the same time provide creative solutions for users all around the world.

Reputation Certificate

ENS PA System

◆Central Control ◆Peripheral ◆Amplifier ◆Speaker

ENS-10MS
System Service Software Package

Features

This software package consists of server software, workstation software and program production tool

- Client/Server architecture, Windows-based platform
- Central management of all connected IP devices, including mics, talkback terminals, PA terminals
- Real-time display of terminal status, e.g., login IP, volume level, task status; adjust all terminal volume remotely
- Configurable terminal parameters: terminal name, PA right (operation range, priority), talkback right (paging range, priority), monitoring right (monitoring range), etc.
- Realtime/Scheduled broadcast of music or notice to specific terminals through mixer
- File broadcast: broadcast server audio file to specific terminals (support multi-channel broadcast)
- Scheduled task: broadcast a playlist to specific terminals at preset time
- Fire broadcast: broadcast emergency evacuation alarm to specific areas when server receives trigger signal
- Program management: maintain broadcast files in system, which can be called from workstation or terminal
- Provides data interface for workstation software and grants corresponding operation right according to account
- Log function: every paging, call and broadcast operation are recorded for future inquiry
- Connects up to 1000 terminals in one server, and up to 64 servers altogether
- Supports hot swap between main and backup servers, improving system reliability

ENS-11MS
System Service Software Package

Features

This software package supports Linux, Windows 10/Server 2003/Server 2008/Server 2012 operating systems

- Browser/Server architecture, cross-platform application, easy to maintain and upgrade
- Includes traditional PA functions: timed ringing, speech broadcast, BGM, radio broadcast, fire alarm, etc.; supports zone management and broadcast permission settings
- Program library contains audio files in system for terminal playback
- Central management of all terminals within system, overview of terminal status, remote batch volume control
- System overview: terminal online status, system resource occupation, status of various types of tasks, etc.
- Supports offline broadcast: schedule and broadcast local media file on terminal
- Call transfer: auto call transfer upon busy line, shutdown, unanswered, or manual transfer
- Background recording: supports recording broadcast, intercom and monitoring content on server hard drive. Recordings can be queried and exported
- Report query: view various system statuses, application logs, system logs
- User management: add/delete user accounts and set their roles. Customize the scope of permissions for each role, including function permissions and terminal permissions
- Supports hot swap between main and backup servers; supports automatic recovery after system crash
- Multi-level server management: manage and deploy terminals according to user's region
- Cluster server: supports cluster distributed server, for large-scale expansion of terminal
- SDK: provides SDK secondary development kit to integrate with other system platforms. Third-party software can directly control intercom and broadcast, and receive terminal status; by coordinating with monitoring system, it can turn on/off a call or automatically switch the monitoring screen during a call

ENS-10M

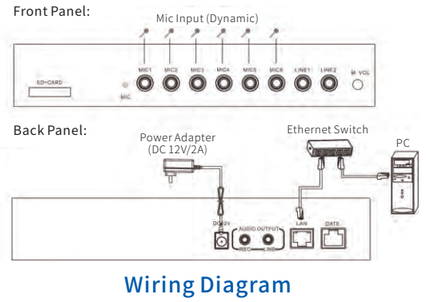
IP PA System Computer

Features

- Industrial-grade computer chassis, steel structure, with high resistance against magnetics, dusts, impacts
- 17"industrial-grade reinforced touch screen, pull-out keyboard and mouse pad, easy to use
- Built-in large-capacity SSD with fast read/write speed, low power consumption, and resistance to vibration and drop
- Industrial-grade motherboard design, fast processing speed and performance, suitable for long time operation
- Installed with PA server software, controls every channel of audio signal, assigns broadcast zones and configures terminals
- Software-generated map view of real-time status of different terminals
- With emergency broadcast button and microphone for fast emergency response or drills
- Accessible standard RJ45 network interface, with cross network segment and cross router support

Specification

- Power Supply/Consumption: DC 12V/10A, ⩽50W
- Screen: 17" touch screen (4-wire resistive)
- Display Language: Chinese, English
- CPU: Intel i5
- Disk: SSD 120G
- RAM: 4GB
- Network Protocol: TCP, UDP, ARP, ICMP, IGMP
- Network Speed: 10/100Mbps
- Audio Coding: MP2/MP3/PCM/ADPCM
- Audio Sampling: 8kHz~44.1kHz, 16bit
- Transmission Bit Rate: 16kbps-192kbps
- SNR/Frequency Response: LINE: ⩾70dB; MIC: ⩾70dB, 20Hz-20KHz
- Connector: 2 * RJ45, 6 * USB-A, 1 * DVI, 1 * LINE IN, 1 * LINE OUT, 1 * MIC IN
- Operation Temperature/Humidity: -10℃~50℃, ⩽90%RH (no condensation)
- Dimension/Weight: 483*351*368mm, 17kg



Wiring Diagram

ENS-10K

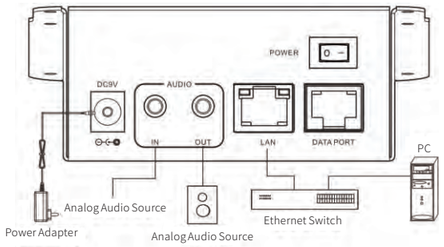
IP Remote Broadcast Controller

Features

- Used for on-site broadcasting; wall-mount; 4.3" true color LCD screen (Chinese/English UI), start-up time ⩽ 1 second
- With 8 channels of audio input (6 mic inputs, 2 line inputs), 1 channel of audio output
- Remote playback to other IP audio terminals through network (specific zone or entire area), at controllable volume
- On-demand server program broadcast or connect a player as audio source, with pause/fast forward/rewind control
- One-button broadcast function (8 programmable broadcast buttons with configurable program source and target zone), plus a wireless remote control (the numpad is also used for one-button broadcast, 100m control distance in open area)
- Accessible standard RJ45 network interface, with cross network segment and cross router support

Specification

- Power Supply/Consumption: DC12V/2A; ⩽5W
- Network Protocol: TCP/IP, UDP, ARP, ICMP, IGMP
- Network Speed: 10/100Mbps
- Audio Coding: MP2/MP3/PCM/ADPCM
- Audio Sampling/Bit Rate: 8kHz~44.1kHz, 16bit, 8kbps-320kbps
- SNR/Frequency Response: ⩾90dB, 20Hz-16KHz
- Display: TFT 4.3" LCD, 480*272
- Connector: 1 * RJ45, 6 * MIC IN, 2 * LINE IN, 1 * LINT OUT, 1 * SD card slot
- Operation Temperature/Humidity: -10℃~50℃, ⩽90%RH (no condensation)
- Dimension/Weight: 315*200*44mm, 2.8kg



Wiring Diagram

ENS-10X

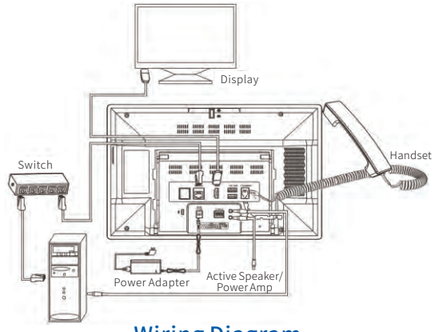
IP Network Paging Microphone

Features

- Professional paging mic design, true color LCD screen, 20 buttons, indicators
- Using high-speed industrial-grade chip, start time ⩽ 1 second
- Broadcast calls can select target zones, with red prompt indicator that lights up during call
- Built-in 3W speaker for two-way talk and monitoring
- Display of names of incoming and outgoing calls, easy to identify
- Can trigger the external alarm light of the designated terminal
- With audio line output for connecting external active speaker for sound amplification
- With audio line input for connecting external sound source to broadcast at designated terminals
- Optional expansion board (cascading up to 16 boards), 8 shortcut keys (customizable, for one-key broadcast at designated zones or calling specific terminals)
- Supports offline intercom (initiating and receiving) without server
- Accessible standard RJ45 network interface, with cross network segment and cross router support

Specification

- Power Supply/Consumption: DC9V/2.5A; ⩽5W
- Network Protocol: TCP/IP, UDP, ARP, ICMP, IGMP
- Network Speed: 10/100Mbps
- Audio Coding: MP2/MP3/PCM/ADPCM
- Audio Sampling/Bit Rate: 8kHz~44.1kHz, 16bit, 8kbps-320kbps
- SNR/Frequency Response: >90dB, 20Hz-16KHz
- Display: TFT 1.8" LCD, 128*160
- Language: Chinese, English
- Connector: 1 * RJ45, 1 * LINE IN, 1 * LINT OUT
- Operation Temperature/Humidity: -10℃~65℃, ⩽90%RH (no condensation)
- Dimension/Weight: 121.5*60.3*244.2mm, 0.9kg



Wiring Diagram

ENS-11X

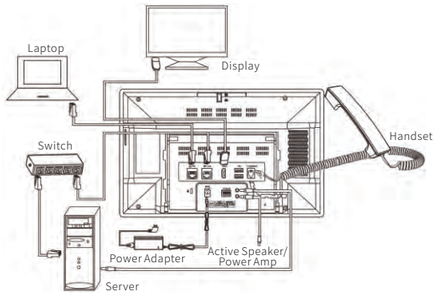
IP Network Visual Console

Features

- Professional console design, can be placed on tabletop, installed on wall or be embedded
- 10.2" true color digital screen, capacitive touch control, 1280*800 resolution
- Built-in 5MP HD digital camera (privacy-aware with webcam cover), H.264 encoding
- Built-in 3W speaker and mic capsule, for hands-free calls, receiving broadcast and monitoring (w/ digital noise reduction)
- Broadcast to whole area, specific zones or individual terminals
- Broadcast of local audio file or pre-recorded file to specific terminals
- Red emergency button, one-key broadcast to preset zones
- Display of incoming/outgoing calls, and voice broadcast of incoming calls
- Mixer-style operating interface, intuitive audio source control
- Supports offline broadcast without server
- Can view work status of other terminals (login status, intercom status, task status)
- Detachable gooseneck mic; supports 3 ways to talk: hands-free (in-built mic), hands-free (gooseneck mic), handset
- HDMI interface for connecting external monitor
- Power over Ethernet (PoE), in line with IEEE 802.3af standard
- Accessible standard RJ45 network interface, with cross network segment and cross router support

Specification

- Power Supply/Consumption: DC12V or PoE (IEEE 802.3af); ⩽20W
- Network Protocol: TCP/IP, UDP, ARP, ICMP, IGMP, SIP, HTTP, FTP
- Network Speed: 10/100Mbps
- Audio Coding: MP2/MP3/PCM/ADPCM
- Audio Sampling/Bit Rate: 8kHz~44.1kHz, 16bit, 8kbps-320kbps
- Video Transmission Bit Rate: 96Kbps-2048Kbps
- Camera: CMOS 5MP
- Built-in Amplifier Power: 3W
- SNR/Frequency Response: >90dB, 20Hz-16KHz
- Display: TFT 10.2" LCD, 1280*800
- Language: Chinese, English
- Connector: 1 * RJ45, 1 * ALARM IN, 1 * ALARM OUT, 1 * LINE IN, 1 * HDMI, 2 * USB-A, 1 * handset connector
- Operation Temperature/Humidity: -10°C~55°C, ⩽90%RH (no condensation)
- Dimension/Weight: 336*210*32.5mm, 1.65kg



Wiring Diagram

ENS-12X

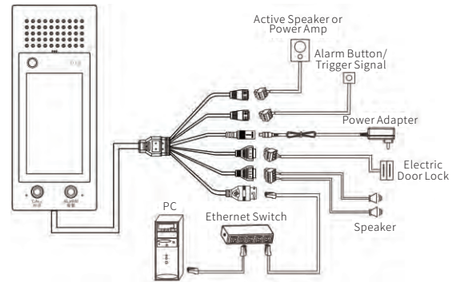
Network Visual Console (2021 version)

Features

- Professional console design, can be placed on tabletop, installed on wall or be embedded
- 10.2" true color digital screen, capacitive touch control, 1280*800 resolution
- Built-in 13MP HD digital camera that supports two-way video call
- Can view work status of server terminals (login status, task status)
- Broadcast to whole area, specific zones or individual terminals, using gooseneck mic input, handset mic input, line input, audio file, text file or pre-recording
- Red emergency physical button, one-key broadcast to preset zones
- Local voice amplification function by connecting to an external active speaker via 3.5mm cable
- Built-in 3W speaker and mic capsule, for hands-free calls, broadcast reception and monitoring (digital noise reduction)
- Display of incoming/outgoing calls, can view all call records (unanswered, incoming/outgoing records)
- Remote unlock function to issue unlock command to the intercom terminal during call
- Supports Push-To-Talk (PTT) intercom for talking to the wireless walkie talkies connected to the system
- Supports multi-party call function, up to 5 parties simultaneously
- Supports call transfer: transfer-if-busy, manual transfer, transfer-if-unanswered
- Supports offline intercom and broadcast without server
- Supports audio/visual monitoring of target terminals individually or cyclically
- Supports initiating/receiving audio/video conference, the initiating party can manage attendee, limit speech, transfer file, and start online voting. Facial recognition check-in is also supported
- Supports 1 alarm input and 1 alarm output which can be linked with another terminal or device
- Supports one 3.5mm line input and one 3.5mm line (recording) output, for audio playback/recording
- Two RJ45 ports, supports network switch function, supports cascade access

Specification

- Power Supply/Consumption: DC12V/3.3A or PoE (IEEE 802.3at); ⩽20W
- Network Protocol: TCP, UDP, ARP, ICMP, IGMP, HTTP, RTP, SIP
- Network Speed: 10/100Mbps
- Audio Coding: MP2/MP3/PCM/ADPCM
- Audio Sampling Rate: 8KHz~48KHz, 16bit/32bit
- Video Transmission Bit Rate: 512Kb-4096Kb
- Camera: CMOS 13MP
- Built-in Amplifier Power: 3W
- Rated Line Output Voltage: 1V
- THD: ⩽0.5%, 1kHz
- SNR: ⩾85dB (A-weighted)
- Frequency Response: 22Hz-20KHz
- Display: TFT 10.2" LCD, 1280*800
- Language: Chinese, English
- Connector: 2 * RJ45, 1 * ALARM IN, 1 * ALARM OUT, 1 * LINE IN, 1 * LINE OUT, 1 * HDMI, 2 * USB-A, 1 * handset connector
- Operation Temperature/Humidity: -10℃~55℃, ⩽90%RH (no condensation)
- Dimension/Weight: 337*211*32.7mm, 1.5kg



Wiring Diagram

ENS-10D1

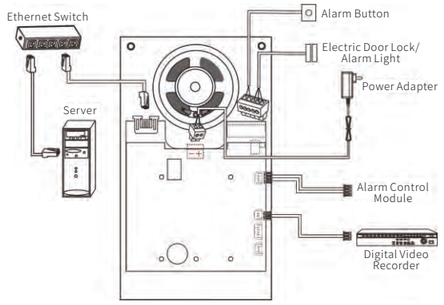
IP Network Visual Talk-back Terminal

Features

- Rugged and durable, high-grade brushed aluminum panel, optional IP65 rating, IK07 anti-collision level
- 7" touch screen, resolution 1024*600, usable under daylight
- Full-duplex intercom (with echo cancellation), 4 call modes switchable on touch screen:
  A) Double key call: call target set in WEB or defined by server
  B) Shortcut call: 14 shortcut call keys per page, names set in WEB
  C) Dial call: enter the number in numpad and call. Numpad supports password-triggered door unlock signal
  D) Scene call: supports 9 different scene quick call, different scene picture can be configured through WEB
- Supports card swipe call, can be configured to trigger unlock signal
- Independent physical call key, supports one-key call or one-key alarm
- Built-in 2 × 10W amplifier, can be connected to external speakers
- Broadcast to whole area, specific zones or individual terminals (ID# increases)
- Built-in high-definition digital camera with H.264 encoding for two-way HD visual intercom
- Built-in digital audio processor to enhance noise reduction, improve receiving distance and audio quality
- Compatible with standard SIP protocol, can be connected to VoIP phone system (Asterisk and other mainstream IP-PBX)
- Supports onvif protocol to send video to 3rd-party platforms for display
- Supports offline intercom (initiating and receiving) without server
- Noise alarm: alerts server when environmental volume continues to exceed preset level
- Optional 1-channel HDMI output which can play images, advertising, intercom video; or optional 1-channel USB interface which can be connected to a Bluetooth adapter for two-way intercom over Bluetooth
- With 1 channel alarm input, can be connected to external alarm button
- With 1 channel line output, for connecting to active speaker or amplifier
- With 1 channel alarm output, for connecting to door lock or alarm lights
- Accessible standard RJ45 network interface, with cross network segment and cross router support
- Supports Power over Ethernet (PoE)

Specification

- Power Supply/Consumption: DC12V/2A, ⩽7W
- Network Protocol: TCP/IP, UDP, ARP, ICMP, IGMP, SIP, HTTP, FTP
- Network Speed: 10/100Mbps
- Audio Sampling/Bit Rate: 8KHz~44.1KHz, 16bit, 8kbps~320kpbs
- Video Transmission Bit Rate: 128kbps-2Mbps
- Camera: CMOS
- Display: TFT 7" LCD, 1024*600, resistive touch control
- Language: Chinese, English
- Connector: 1 * RJ45, 1 * ALARM IN, 1 * ALARM OUT, 1 * LINE OUT, 1 * Amp Out, 1 * HDMI, power connector
- Operation Temperature/Humidity: -20℃~55℃, ⩽90%RH (no condensation)
- Dimension/Weight: 134*36.7*315mm, 2kg



Wiring Diagram

ENS-10D2

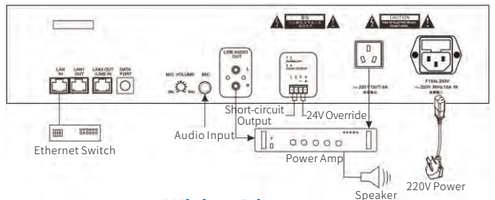
IP Network Visual Talk-back Terminal

Features

- Rugged, premium Al alloy panel
- Full-duplex intercom in one key press
- Built-in 3W speaker & dual mic capsules for hands-free calls, receiving broadcasts and real-time monitoring
- Built-in 1080P wide-angle camera with H.264 encoding for HD video intercom
- Camera features high dynamic range, exposure correction and performance under backlight
- Internal DSP to reduce noise and increase speak distance and audio quality
- Supports onvif protocol to send video to third-party platform
- Supports standard SIP protocol, can be connected to VOIP telephone system (mainstream IP-PBX such as Asterisk)
- Supports offline intercom (initiating and receiving) without server
- Anti-tampering alarm which alerts server when the terminal is dismantled during normal operation
- With 1 channel alarm input, can be connected to external alarm button
- With 1 channel alarm output, for connecting to door lock or alarm lights
- With 1 channel recording output for 24*7 recording
- Accessible standard RJ45 network interface, with cross network segment and cross router support
- Supports Power over Ethernet (PoE)

Specification

- Power Supply/Consumption: DC24V/1A, ⩽5W
- Network Protocol: TCP/IP, UDP, ARP, ICMP, IGMP, HTTP
- Network Speed: 10/100Mbps
- Audio Sampling/Bit Rate: 8KHz~44.1KHz, 16bit, 8kbps~320kpbs
- Video Transmission Bit Rate: 128kbps-2Mbps
- Camera: CMOS
- Connector: 1 * RJ45, 1 * ALARM IN, 1 * ALARM OUT, 1 * REC OUT, 1 * cascade connector
- Operation Temperature/Humidity: -20°C~55°C, ⩽90%RH (no condensation)
- Dimension/Weight: 100*162*29mm, 0.6kg



Wiring Diagram

ENS-10Z

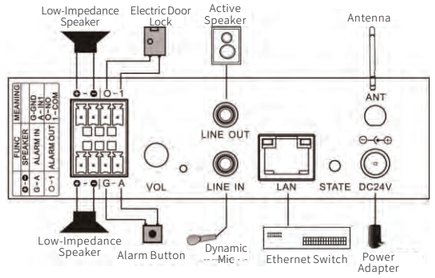
IP Network Audio Terminal

Features

- 2U rack size, anti-corrosion brushed aluminum panel, 3" LCD (128x64) and IR remote control
- High-speed industrial-grade dual-core (ARM + DSP) chip, start-up time ⩽ 1 second
- Audio line output, for connecting to external amplifier for sound amplification
- Voice-activated switch-on/off of external amplifier; controlled power supply maximum output power 1000W
- With 1 channel alarm output; optional: 24V alarm override module, can drive up to 150 four-wire audio controllers (recommended to use RVV2*0.75 or above GB standard for override cable)
- On-demand broadcast of server program content (Chinese and English menu), output from local line
- Accessible standard RJ45 network interface, with cross network segment and cross router support

Specification

- Power Supply/Consumption: AC220V 50Hz, ⩽20W
- Network Protocol: TCP/IP, UDP, ARP, ICMP, IGMP
- Network Speed: 10/100Mbps
- Audio Coding: MP2/MP3/PCM/ADPCM
- Audio Sampling/Bit Rate: 8kHz~44.1kHz, 16bit, 8kbps-320kbps
- SNR/Frequency Response: ⩾90dB, 20Hz-16KHz
- Display: 3" LCD
- Connector: 1 * RJ45, 1 * LINE IN, 1 * LINT OUT, 1 * ALARM OUT, 1 * OVERRIDE OUT, 1 * controlled power supply
- Operation Temperature/Humidity: -10°C~50°C, ⩽90%RH (no condensation)
- Dimension/Weight: 485*258*88mm, 4.2kg



Wiring Diagram

ENS-11Z3

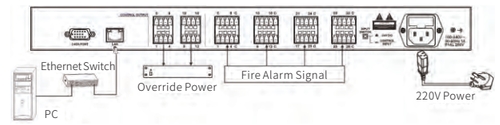
IP Network Audio Terminal

Features

- Wall-mount design, ultra-compact, space-saving
- High-speed industrial-grade dual-core (ARM + DSP) chip, start-up time ⩽ 1 second
- Built-in Class D digital amplifier with 2x10W or 2x30W power (8Ω) output; better sound quality, less heat generation and higher efficiency
- 1 analog audio input with local volume adjustment knob. 1 line output for amplifier extension
- Status LED displays various status of the terminal in real time (e.g., login, connection, task status)
- With 1-channel alarm input, 1-channel alarm output
- Support remote configuration and online upgrade
- Accessible standard RJ45 network interface, with cross network segment and cross router support
- Optional: wireless transceiver module and 2.4G wireless on-demand microphone:
  A) Automatic pairing of transceiver module and 2.4G mic upon power-up; working frequency: ISM channel 2400-2483MHz
  B) Local sound reinforcement by using in-built mic on wireless on-demand mic or connecting external headset mic
  C) Amplification of cell phone audio using the 3.5mm stereo interface on the wireless on-demand mic
  D) Broadcast messages to other terminals or have two-way intercom with master control room using the on-demand mic
  E) Wireless on-demand mic comes with a 2-inch OLED display, displaying on-demand directory and current task info in English and Chinese, controlling server program library such as Play/Pause, Fast Forward/Fast Rewind, A-B Repeat
  F) Volume can be adjusted on the mic
  G) Standard microUSB interface for charging (compatible with phone charger), about 36 hours standby, about 8 hours sound amplification

Specification

- Power Supply/Consumption: DC24V/1A, ⩽24W; DC24V/2.7A, ⩽70W
- Network Protocol: TCP/IP, UDP, ARP, ICMP, IGMP
- Network Speed: 10/100Mbps
- Audio Coding: MP2/MP3/PCM/ADPCM
- Audio Sampling/Bit Rate: 8kHz~44.1kHz, 16bit, 8kbps-320kbps
- SNR/Frequency Response: ⩾90dB, 20Hz-16KHz
- Output Power: 2*10W (8Ω fixed), 2*30W (8Ω fixed)
- Connector: 1 * RJ45, 1 * LINE IN, 1 * LINT OUT, 1 * Power Out, 1 * ALARM IN, 1 * ALARM OUT
- Operation Temperature/Humidity: -10℃~50℃, ⩽90%RH (no condensation)



Wiring Diagram

ENS-10J

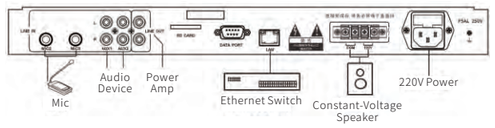
IP Network Fire Alarm Matrix

Features

- 32CH alarm inputs (supporting two trigger methods: ON/OFF digital variable and 24V input) to link with fire center signal
- 8CH alarm outputs (normally open contact: DC24V/1A), can link with alarm light to display alarm status
- Any number of IP network alarm interfaces can be used in the system to increase the number of input terminals
- Automatically send alarm information to server, and the server carries out the relative alarm broadcast task
- Accessible standard RJ45 network interface, with cross network segment and cross router support

Specification

- Power Supply/Consumption: AC185V~260V, 50~60Hz, ⩽15W
- Connector: 1 * RJ45, 32 * ALARM IN, 8 * ALARM OUT, 1 * Data Update Port
- Operation Temperature/Humidity: -10℃~70℃, ⩽90%RH (no condensation)
- Dimension/Weight: 483*259*44mm, 2.7kg



Wiring Diagram

ENS-10G24

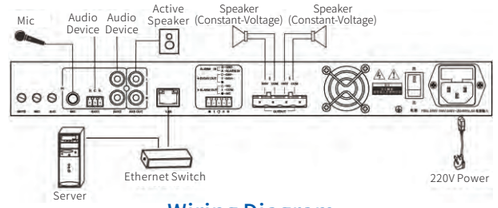
IP Network Power Amplifier

Features

- Rack mount design, high-performance constant-voltage network power amplifier, start-up time ⩽ 1 second
- Class D digital power amplifier, constant voltage 100V, less heat, higher efficiency, auto power-saving if without signal
- 5 input channels, independent channel volume controls, one master volume control
- Freely set the priority of 5 input channels (front-panel mic port has top priority)
- Audio cable line out for linking with external power amplifier
- Accessible standard RJ45 network interface, with cross network segment and cross router support

Specification

- Power Supply/Consumption: AC220V 50Hz, ⩽280W
- Output Power: 240W
- Network Protocol: TCP/IP, UDP, ARP, ICMP, IGMP
- Network Speed: 10/100Mbps
- Audio Coding: MP2/MP3/PCM/ADPCM
- Audio Sampling/Bit Rate: 8kHz~44.1kHz, 16bit, 8kbps-320kbps
- SNR/Frequency Response: ⩾90dB, 20Hz-16KHz
- Display: LCD, 144*32
- UI Language: Chinese/English
- Connector: 1 * RJ45, 1 * Dynamic MIC IN, 2 * LINE MIC IN, 2 * AUX IN, 1 * LINE OUT, 1 * POWER OUT
- Operation Temperature/Humidity: -10°C~50°C, ⩽90%RH (no condensation)
- Dimension: 483*408*44mm



Wiring Diagram

ENS-13D/ENS-26D/ENS-36D/ENS-50D
ENS-65D/ENS-100D/ENS-150D

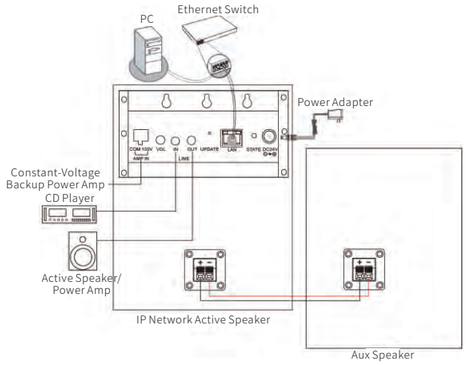
IP Network Power Amplifier

Features

- 1U rack size, consistent network device appearance
- Simple humanized design, status LED on front panel, power switch and volume dials on the back, lesser accidental control, lower maintenance downtime
- High-efficiency digital power amplifier, 100V fixed voltage output, efficiency above 90%
- Front signal inputs (1CH MIC IN, 2CH AUX LINE IN, 1CH Network Audio), dedicated volume dial for each channel. LINE IN supports balanced input for lower noise and higher S/N ratio
- Built-in large-capacity storage, supports remote update of scheduled task and alarm trigger task
- Supports offline broadcast which allows local playback while network is off
- 1CH ALARM IN and 1CH ALARM OUT for connecting related peripheral devices
- Compatible with international wide voltage design, adaptable to different voltages
- Circuit protection protects against overload/overheat, lightning strike and surges
- Accessible standard RJ45 network interface, with cross network segment and cross router support

Specification

- Rated Output Power: 130W/260W/360W/500W/650W/1000W/1500W
- Power Consumption: <90W
- Power Supply: AC 100V-240V, 50/60Hz (voltage surge protection: 4kV in common mode, 2kV in differential mode)
- Power Output: 100V fixed voltage (voltage surge protection: 2kV in common mode)
- Input Sensitivity & Input Impedance: AUX1: 500mV/10KΩ (bal) AUX2: 500mV/10KΩ (unbal)
- MIC: 100mV/600Ω (unbal)
- Frequency Response: 60Hz-16KHz
- THD: ⩽0.5% at 1KHz 1/2 output power
- S/N Ratio: AUX1: ⩾84dB; AUX2: ⩾84dB; MIC: ⩾80dB
- Cooling: front-to-back fan cooling, activated only when cooler >55°C
- Protection: over-current, short-circuit, overheat, AC fuse
- Network Protocol: TCP/IP, UDP, ARP, ICMP, IGMP
- Network Speed: 10/100Mbps
- Audio Coding: MP2/MP3/PCM/ADPCM
- Audio Sampling/Bit Rate: 8kHz~44.1kHz, 16bit, 8kbps-320kbps
- Operation Temperature/Humidity: -10°C~50°C, ⩽90%RH (no condensation)
- Dimension: 440*300*44mm (L*W*H)



Wiring Diagram

ENS-11Y

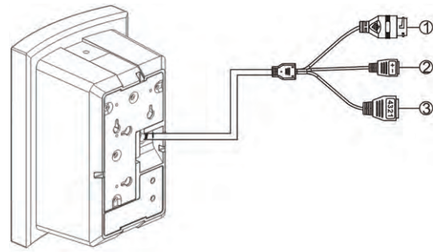
IP Network Active Speaker

Features

- Wall-mount installation; integrated solution: network audio decoder, digital power amplifier and speaker in one
- High-speed industrial-grade dual-core (ARM + DSP) chip, start-up time ⩽ 1 second
- Built-in Hi-Fi speakers, 2*10W (8Ω) stereo Class D power amplifier
- Built-in loop detection enables easy status monitoring and maintenance of remote speaker
- Control output volume remotely on service software, or adjust line volume locally via volume knob
- Accessible standard RJ45 network interface, with cross network segment and cross router support
- Optional: constant voltage backup module:
  A) Access to 100V constant-voltage broadcast line as a backup
  B) Automatic switch from "digital network broadcasting" to "analog constant-voltage broadcasting" when network is abnormal
- Optional: wireless transceiver module and 2.4G wireless on-demand microphone:
  A) Automatic pairing of transceiver module and 2.4G mic upon power-up; working frequency: ISM channel 2400-2483MHz
  B) Local sound reinforcement by using in-built mic on wireless on-demand mic or connecting external headset mic
  C) Amplification of cell phone audio using the stereo input jack on the wireless on-demand mic
  D) Broadcast messages to other terminals or have two-way intercom with master control room using the on-demand mic
  E) Wireless on-demand mic comes with a 2-inch OLED display, displaying on-demand directory and current task info in English and Chinese, controlling server program library such as Play/Pause, Fast Forward/Fast Rewind, A-B Repeat
  F) Volume can be adjusted on the mic
  G) Standard micro USB interface for charging (compatible with phone charger), about 36 hours standby, about 8 hours amplification

Specification

- Power Supply/Consumption: DC24V/1A, ⩽23W, standby ⩽3W
- Network Protocol: TCP/IP, UDP, ARP, ICMP, IGMP
- Audio Coding: MP2/MP3/PCM/ADPCM
- Audio Sampling/Bit Rate: 8kHz~48kHz, 16bit, 8kbps-320kbps
- SNR/Frequency Response: ⩾90dB, 200Hz-18KHz
- Built-in Power Amp: 2*10W (8Ω fixed impedance)
- Operation Temperature/Humidity: -10°C~50°C, ⩽90%RH (no condensation)
- Dimension/Weight: 157.5*147*246mm, 1.2kg



Interface Description

① Network Interface: connects to network switch or PoE switch via internet cable
② Power Supply Interface: DC24V/1A (PoE supported; external power supply is not necessary if PoE Switch is connected)
③ Power Amp Socket (Note: Socket #1 & 2 are main sockets, #3 & 4 are reserved sockets)

ENS-15Y

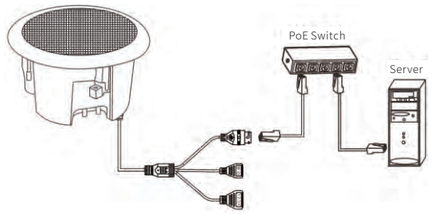
Network Wall-Mount Speaker

Features

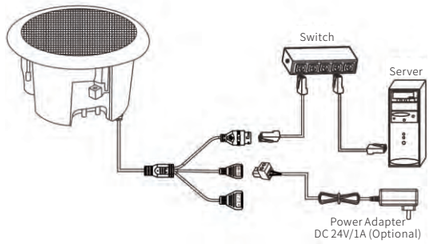
- Wall-mount, integrated solution: network audio decoder, digital power amplifier and speaker in one
- High-speed industrial-grade dual-core (ARM + DSP) chip, start-up time ⩽ 1 second
- Built-in Hi-Fi speakers, stereo Class D power amplifier
- Built-in loop detection enables easy status monitoring and maintenance of remote speaker
- Supports both DC and PoE (IEEE 802.3at standard) power supply; supports universal SIP protocol
- Accessible standard RJ45 network interface, with cross network segment and cross router support

Specification

- Power Supply/Consumption: DC24V/1A or PoE (802.3at protocol), standby ⩽3W
- Max SPL: 97dB±3dB
- Network Protocol: TCP/IP, UDP, ARP, ICMP, IGMP
- Main Speaker Rated Power (DC): 1*20W / 2*10W
- Main Speaker Rated Power (PoE): 15W
- Network Transmission Rate: 10M/100M adaptive
- Frequency Response: 100Hz-18KHz
- Dimension/Weight: 193*151.5*292mm, 2.4kg



Wiring Method ①



Wiring Method ②

ENS-16Y

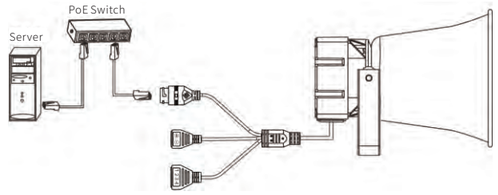
Network Ceiling Speaker

Features

- Ceiling installation; integrated solution: network audio decoder, digital power amplifier and speaker in one
- High-speed industrial-grade dual-core (ARM + DSP) chip, start-up time ⩽ 1 second
- Built-in Hi-Fi speakers, stereo Class D power amplifier
- Built-in loop detection enables easy status monitoring and maintenance of remote speaker
- Supports both DC and PoE (IEEE 802.3at standard) power supply; supports universal SIP protocol
- Accessible standard RJ45 network interface, with cross network segment and cross router support

Specification

- Power Supply/Consumption: DC24V/1A or PoE (802.3at protocol), standby ⩽3W
- Max SPL: 97dB±3dB
- Network Protocol: TCP/IP, UDP, ARP, ICMP, IGMP
- Main Speaker Rated Power (DC): 1*20W / 2*10W
- Main Speaker Rated Power (PoE): 15W
- Network Transmission Rate: 10M/100M adaptive
- Frequency Response: 100Hz-18KHz
- Dimension/Weight: ø213*165mm, 1.4kg



Wiring Diagram

ENS-17Y

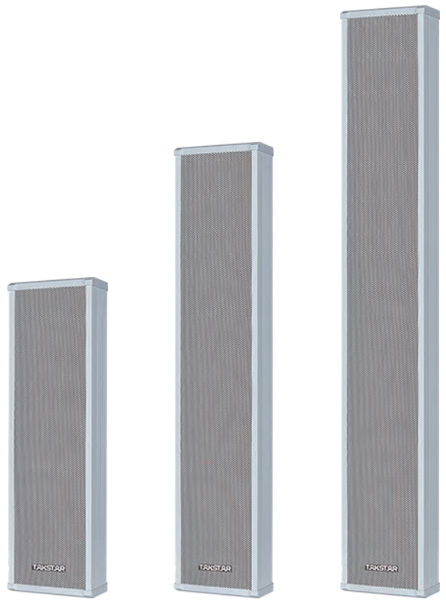
Network Horn Speaker

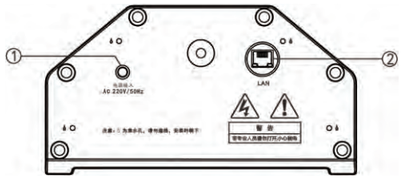
Features

- Wall-mount, integrated solution: network audio decoder, digital power amplifier and speaker in one
- High-speed industrial-grade dual-core (ARM + DSP) chip, start-up time ⩽ 1 second
- Built-in Hi-Fi speakers, stereo Class D power amplifier
- Built-in loop detection enables easy status monitoring and maintenance of remote speaker
- Supports both DC and PoE (IEEE 802.3at standard) power supply; supports universal SIP protocol
- Accessible standard RJ45 network interface, with cross network segment and cross router support

Specification

- Power Supply: DC24V/1A or PoE (802.3at protocol)
- Standby Power Consumption: ⩽3W
- Max SPL: 97dB±3dB
- Network Protocol: TCP/IP, UDP, ARP, ICMP, IGMP
- Main Speaker Rated Power (DC): 1*20W
- Main Speaker Rated Power (PoE): 15W
- Network Transmission Rate: 10M/100M adaptive
- Frequency Response: 100Hz-18KHz
- Dimension/Weight: 283.1*224.3*269mm, 2.0kg





Interface Description

① Power Input: accepts AC220V power
② Network Interface: connects to switch via network cable for server access
Note: Do Not cover or block the marked drainage hole at the bottom

ENS-30W/ENS-60W/ENS-120W

IP Network Active Column Speaker

Features

- Integrated solution: network audio decoder, digital power amplifier and speaker in one
- Three output power levels available: 30W/60W/120W
- Built-in high-capacity flash, with a clock chip to achieve offline broadcast based on pre-imported content
- Built-in loop detection enables easy status monitoring and maintenance of remote speakers
- Auto broadcast volume adjustment based on detected environmental noise level
- Supports remote volume control on service software
- Supports web-based parameter customization on network/audio/task-priority parameters; supports online upgrade
- Accessible standard RJ45 network interface, with cross network segment and cross router support
- All-weather design, waterproof level up to IPX5

Specification

- Power Supply/Consumption: AC220V 50Hz, ⩽40W
- Output Power: 30W/60W/120W (100V constant voltage)
- Network Protocol: TCP/IP, SIP, UDP, ARP, ICMP, IGMP
- Network Speed: 10/100Mbps
- Audio Sampling/Bit Rate: 8kHz~44.1kHz, 16bit
- SNR/Frequency Response: ⩾80dB, 200Hz-18KHz
- Speaker Sensitivity: 90dB (1m/w)
- Connector: 1 * RJ45, 1 * 220V Power Input
- Operation Temperature/Humidity: -20°C~55°C, 10%-90%RH (no condensation)

IP Network Public Address System

Supermarket | Campus | Hotel | Park | Prison | Village | Commercial Complex

Central Control Series

Peripheral Series

Amplifier Series

Speaker Series

IP PA System

◆Central Control ◆Peripheral ◆Amplifier ◆Speaker

IP-1M

Network Broadcast Server

Features

- System compatibility: Microsoft Windows (x32/x64: Server 2008 Enterprise/Standard, Server 2012 Datacenter Edition, Small Business Server 2008, Windows 7/10), Red Hat Linux, SUSE Linux
- Authentication password and read/write permission password protection
- Industrial chassis, touch screen control, powerful IP broadcast control software. Large, customizable program library, on-demand audio playback, scheduled task, terminal and permission management. Media playback service back-end for all network adapters and audio workstations
- Fully digital, LAN-based or Internet-based (discrete IP) transmission. 100Mbps, up to dozens or hundreds of program sources. Any LAN workstation with this software can broadcast message, add/delete programs as per configured permission
- Achieve two-way intercom, broadcast monitoring, on-demand broadcast, real-time broadcast, terminal customization, one-key talkback, scheduled program broadcast, online speech/radio forwarding, auto trigger terminal by audio, fire-alarm broadcast

Specification

- Screen: 15" high-brightness LCD (four-wire resistive touch screen)
- Resolution: 1024x768, without DVD drive
- Motherboard: industrial motherboard
- CPU: Intel J1900 4-core
- Graphics: onboard
- RAM: 4G
- Hard Disk: 1TB
- Power Supply: 350ATX
- Expansion: 5*PCI slot
- Serial Port: 1*COM port
- USB: 2 on the front, 4 on the rear
- Overall Power Consumption: 60~80W
- Connector: 3*audio port, 1*network port, 1*keyboard port, 1*mouse port, 1*VGA port
- Remarks: sound card quantity is optional from 0 (standard) to 5 (top)
- Dimension: 19", 7U, 482.6*310.3*295mm (W*H*D)
- Installation: rack-mounted, desktop placement
- Panel: 8mm high-grade brushed hard anodized Al alloy panel
- Enclosure: fingerprint-proof electrogalvanized steel sheet
- Keyboard/Mouse: pull-out keyboard and touchpad mouse at chassis bottom
- Color: available in silver or black

IP-1S

Network Broadcast Management Software

Features

- Switch freely among 16 sets of timed tasks, automatically or manually; has mute function
- Includes IP audio server software, management software, configuration tool and sub-control software
- Supports double decoding and double-task running (compatible terminal required)
- Tree-like hierarchical network structure, each terminal is able to forward audio stream from server
- Each terminal can forward to up to 100 subordinate terminals, in unlimited tiers, with up to 10,000 terminals in one system
- Each terminal can forward and broadcast to local subordinate terminals without the need of a server
- Standard TCP/IP protocol, can be directly integrated into existing network
- Embedded system as main architecture to avoid virus attack on broadcast unit
- Control online broadcast terminals, assign IP/zone, adjust terminal volume and check their status
- Customizable broadcast program based on day/week/month
- Supports Android client control of terminals
- Supports text-based rolling announcement on LED screen (roll speed adjustable). Synchronized text and audio for timed/manual tasks (compatible terminal required)
- IP network software encryption, software registration protection dongle for authorizing terminal quantity and valid period

IP-10X

Network Paging Station

Features

- Professional look, LCD screen, 8 zone shortcut keys, 6 function keys
- High-speed industrial-grade chip, start-up time ⩽ 1 second
- Mic with red LED that lights up during speak, use it to broadcast to permitted area
- Built-in speaker for two-way communication (transmit and receive calls)
- Accessible standard RJ45 network interface, supports DHCP, with superb cross-network-segment capability
- Two-way paging between terminals, with built-in speaker for monitoring (optional)
- One-to-one, one-to-many and many-to-many paging based on authorized permission
- During paging, press CALL to mute/unmute, press FAST to turn on/off AGC, press UP/DOWN to adjust volume (-40dB~0dB), press Enter to adjust mic gain (+0.5dB~+4dB)

Specification

- Network Interface: standard Rj45
- Network Protocol: TCP/IP, UDP, IGMP (multicast)
- Power Supply: DC12V/1A, ±0.1V
- Digital Audio Format: ADPCM, MP3/MP2
- Sample Stream: 8-128K
- Transmission Rate: 10/100Mbps adaptive
- Audio Mode: 16-32bit stereo, CD quality
- Standby Power Consumption: 0.2W
- Working Power Consumption: ⩽10W
- 1CH Mic IN: bandwidth 200Hz-15KHz
- Sensitivity Level: 3mV-10mV
- 1CH LINE IN: bandwidth 200Hz-20kHz, level MAX 1.5V p-p
- Audio OUT: bandwidth 200Hz-3.5kHz, level MAX 1.5V p-p
- Output Frequency: 20Hz~20KHz
- Harmonic Distortion: ⩽0.1%
- S/N Ratio: >82dB
- Built-in Speaker Output Impedance: 4Ω, 3W
- Operating Temperature: -15℃~65℃
- Operating Humidity: 10%~90%
- Working Power Consumption: ⩽10W

IP-11X

Network Paging Station

Features

- Comes with USB, SD card interface, FM radio, Bluetooth functions, 1CH LINE IN and 1CH LINE OUT
- On-board volume control, one-key mute function
- 7" TFT true color LCD touch screen, 800*480 resolution, 154*86mm size, automatic backlight off, 8 number/zone shortcut keys, one-key selective paging
- Desktop mic design, black, brushed anodized aluminum panel, black electroplated buttons. Exquisite build, modern feel
- High-sensitivity premium mic capsule, balanced input, clear audio without noise
- Intuitive on-board UI control, no extra software configuration required. Page any number of terminals as a group easily
- Embedded system, high-speed industrial-grade chip, start-up time ⩽ 1 second
- Gooseneck mic with ring LED that lights up red during speak; can be used to speak towards authorized area
- Accessible standard RJ45 network interface, with cross network segment and cross router support
- One-to-one, one-to-many and many-to-many paging based on authorized permission
- Convenient remote upgrade function
- On-board volume control, adjust for different occasions
- Real-time adjustment of terminal volume, mic gain, local terminal list; supports grouping terminals locally and calling these groups
- 4-wire resistive touch screen to prevent accidental touch
- Supports touch screen calibration with optimized calibration algorithm; endures over 1 million touches

Specification

- Network Interface: standard Rj45
- Network Protocol: TCP/IP, UDP, IGMP (multicast)
- Power Supply: DC12V/1A, ±0.1V
- Digital Audio Format: OGG encoding
- Sample Stream: 80-128K
- Transmission Rate: 10/100Mbps adaptive
- Audio Mode: 16-32bit stereo, CD quality
- Standby Power Consumption: 0.2W
- Working Power Consumption: ⩽10W
- AUX IN/OUT: 3.5mm audio jack
- Audio OUT: bandwidth 200Hz-3.5kHz, level MAX 1.5V p-p
- Output Frequency: 20Hz~20KHz
- Harmonic Distortion: ⩽0.1%
- S/N Ratio: >82dB
- Built-in Speaker Output Impedance: 4Ω, 3W
- Operating Temperature: -15℃~65℃
- Operating Humidity: 10%~90%
- Working Power Consumption: ⩽10W

IP-10D2

Network Intercom Station

Features

- Professional look, 1 function button
- High-speed industrial-grade chip, start-up time ⩽ 1 second
- Built-in mic to call designated terminal
- Built-in speaker for two-way communication (transmit and receive calls)
- Two-way paging between terminals, with built-in speaker
- One-to-one paging based on authorized permission
- Accessible standard RJ45 network interface, with superb cross-network-segment capability

Specification

Built-in Speaker Audio Output

- Sensitivity: 82±2dB/W/m
- Impedance: 4Ω
- Frequency Response: 20Hz~15KHz
- S/N Ratio: 90dB
- Rated Power: 3W

Basic Parameters

- Rated Voltage: DC12V
- Rated Current: 180mA
- Operating Ambient Temperature: -20～+85℃
- Normal Operating Power Consumption: 2W
- Network Protocol: TCP, UDP, ICMP, IGMP, DHCP
- Network Interface: RJ-45 10/100M
- Network Transmission Audio Format: MP3/IMA-ADPCM
- Code Stream: 8kbit/s～320kbit/s
- Dimension: 230*150*65
- Weight: 1.6KG

IP-01C

Network Decoder Controller (1-Channel)

Features

- Standard 2U rack size; high-grade aluminum panel with advanced polishing
- Static IP remains unchanged after network changes, stable performance
- Embedded system and DSP technology; built-in decoding module to receive and decode network audio streams
- High-speed industrial-grade ARM chip, start-up time at milliseconds; provides automatic and manual power switch
- 1CH network signal input, 1CH stereo audio output; high-quality digital audio transmission without noise (CD-level, 32-320kbps adaptive)
- 2CH power control (220V) for automatic power control of connected amplifiers, at max load 2000W; supports timed power-on. 1 group of switch output for triggering/controlling other devices
- CPU-based intelligent power management: amplifiers automatically hibernate when idle, standby power ⩽0.2W, and start when there is playback task
- Remote volume control of terminals; set the default volume levels for background music, emergency broadcast and fire alarm broadcast
- Control knobs for treble, bass and master volume. Receive any program from server via network, including mic paging, fire alarm broadcast, telephone paging
- One cable for all: utilizing existing network resources, integrate into broadcast/computer/monitor network anywhere through Ethernet via TCP/IP protocol, transmit across network gateway, routers and Internet. Remote IP assignment and network configuration. Remote upgrade function
- Remote configuration of treble and bass as per playback requirement. IP reset button to resume factory default

Specification

Digital Audio Input

- Network interface: 1CH, RJ45, 10M/100M
- Network Protocol: TCP/IP, UDP
- Audio Format: MP3/MP2
- Code Stream: 32K-320K
- Frequency Bandwidth: 20Hz-20KHz
- Sensitivity: 92dB
- S/N Ratio: ⩾90dB
- Microphone: ⩾88dB

Analog Audio Input

- MIC IN: 10mV 6.3mm mono jack
- LINE IN Frequency Bandwidth: 20Hz-20KHz
- LINE IN: stereo 1V p-p, 10K RCA socket
- Power Supply: AC 220V±10%, 50-60Hz
- Standby Power: 0.2W
- LINE OUT: stereo 1V p-p, 1K RCA socket
- Dimension: 485(W)x330(D)x88(H)mm

IP-04C

Network Decoder Controller (4-Channel)

Features

- Standard 2U rack size; high-grade aluminum panel with advanced polishing
- Static IP remains unchanged after network changes, stable performance
- Embedded system and DSP technology; built-in decoding module to receive and decode network audio streams
- High-speed industrial-grade ARM chip, start-up time at milliseconds
- Provides automatic and manual power switch
- 4CH network signal input, 4CH stereo audio output
- High-quality digital audio transmission without noise (CD-level, 32-320kbps adaptive)
- 4CH power control (220V) for automatic control of connected amplifiers' power, at max load 2000W; supports timed power-on. 1 group of switch output for triggering/controlling other devices
- CPU-based intelligent power management: amplifiers automatically hibernate when idle, standby power ⩽0.2W, and start when there is playback task
- Remote volume control of terminals; set the default volume levels for background music, emergency broadcast and fire alarm broadcast
- Control knobs for treble, bass and master volume.
- Receive any program from server via network, including mic paging, fire alarm broadcast, telephone paging
- One cable for all: utilizing existing network resources, integrate into broadcast/computer/monitor network anywhere through Ethernet via TCP/IP protocol, transmit across network gateway, routers and Internet.
- Remote IP assignment and network configuration. Remote upgrade function
- Remote configuration of treble and bass as per playback requirement.
- IP reset button to resume factory default

Specification

Digital Audio Input

- Network interface: 4CH, RJ45, 10M/100M
- Network Protocol: TCP/IP, UDP
- Audio Format: MP3/MP2
- Code Stream: 32K-320K
- Frequency Bandwidth: 20Hz-20KHz
- Sensitivity: 92dB
- S/N Ratio: ⩾90dB; Mic: ⩾88dB

Analog Audio Input

- MIC IN: 10mV 6.3mm mono jack
- LINE IN Frequency Bandwidth: 20Hz-20KHz
- LINE IN: stereo 1V p-p, 10K RCA socket
- Power Supply: AC 220V±10%, 50-60Hz
- Standby Power: 0.2W
- LINE OUT: stereo 1V p-p, 1K RCA socket
- Dimension: 485(W)x330(D)x88(H)mm

IP-01G

Network Audio Adapter (1-Channel)

Features

- Standard 2U rack size; high-grade aluminum panel with advanced polishing
- Static IP remains unchanged after network changes, stable performance
- Embedded system and DSP technology; built-in encoding/decoding module to receive and encode/decode network audio streams
- High-speed industrial-grade ARM chip, start-up time at milliseconds; 1CH RJ45 ports, configurable IP address
- Transfer multiple audio programs through the network; each device can achieve 1 * N audio matrix switching function
- 1CH LINE/MIC IN, 1CH TCP/IP encoding, discrete volume control; high-quality digital transmission without noise; one-way paging
- CD-level sound quality (audio file bit rate 32-320kbps adaptive)
- Zone broadcast shortcut buttons; accessible RJ45 port, superb cross-network-segment capability; remote upgrade function
- Use multiple sets in one system without quantity limit
- IP reset button to resume factory default

Specification

Digital Audio Input
- Network Interface: 1CH, RJ45, 10M/100M
- Network Protocol: TCP/IP, UDP
- Audio Format: MP3/MP2
- Code Stream: 32K-320K
- Frequency Bandwidth: 20Hz-20KHz
- Sensitivity: 92dB
- S/N Ratio: ⩾90dB
- Microphone: ⩾88dB

Analog Audio Input
- MIC IN: 10mV 6.3mm mono jack
- LINE IN Frequency Bandwidth: 20Hz-20KHz
- LINE IN: stereo 1V p-p, 10K RCA socket
- Power Supply: AC 220V±10%, 50-60Hz
- Standby Power: 0.2W
- LINE OUT: stereo 1V p-p, 1K RCA socket
- Dimension: 485(W)x330(D)x88(H)mm

IP-04G

Network Audio Adapter (4-Channel)

Features

- Standard 2U rack size; high-grade aluminum panel with advanced polishing
- Static IP remains unchanged after network changes, stable performance
- Embedded system and DSP technology; built-in encoding/decoding module to receive and encode/decode network audio streams
- High-speed industrial-grade ARM chip, start-up time at milliseconds; 4CH RJ45 ports, configurable IP address
- Transfer multiple audio programs through the network; each device can achieve 4 * N audio matrix switching function
- 4CH LINE/MIC IN, 4CH TCP/IP encoding, discrete volume control; high-quality digital transmission without noise; one-way paging
- CD-level sound quality (audio file bit rate 32-320kbps adaptive)
- Zone broadcast shortcut buttons; accessible RJ45 port, superb cross-network-segment capability; remote upgrade function
- Use multiple sets in one system without quantity limit
- IP reset button to resume factory default

Specification

Digital Audio Input
- Network Interface: 4CH, RJ45, 10M/100M
- Network Protocol: TCP/IP, UDP
- Audio Format: MP3/MP2
- Code Stream: 32K-320K
- Frequency Bandwidth: 20Hz-20KHz
- Sensitivity: 92dB
- S/N Ratio: ⩾90dB
- Microphone: ⩾88dB

Analog Audio Input
- MIC IN: 10mV 6.3mm mono jack
- LINE IN Frequency Bandwidth: 20Hz-20KHz
- LINE IN: stereo 1V p-p, 10K RCA socket
- Power Supply: AC 220V±10%, 50-60Hz
- Standby Power: 0.2W
- LINE OUT: stereo 1V p-p, 1K RCA socket
- Dimension: 485(W)x330(D)x88(H)mm

IP-10K

Network RF Remote Control

Features

- Standard 2U rack size; high-grade aluminum panel with advanced polishing
- Embedded system, high-speed industrial-grade chip, shorter start-up time, more stable
- 1CH RJ45 output to integrate into any network; control remotely, unlimited by server room location
- Accessible standard RJ45 network interface, with superb cross-network-segment capability
- Supports 16 user priority level presets, 16 task priority levels
- Control remotely up to 1000m in open area
- 12-key control, key 1-10 are for music selection, key 11 is speak button, key 12 is exit button
- Convenient remote upgrade function
- Use multiple sets in one system without quantity limit
- IP reset button to resume factory default

Specification

- Communication Protocol: TCP/IP
- Network Interface: 1CH, Rj45
- Operating Frequency: 315MHz (433MHz optional)
- Ambient Temperature: +0~+40℃
- Relative Humidity: 45%~85%
- Atmospheric Pressure: 86KPa~106KPa
- Standby Power Consumption: ⩽0.1W
- Working Power Consumption ⩽5W
- Power Supply: AC 220V±10%, 50-60Hz
- Dimension: 485(W)x330(D)x88(H)mm

IP-10J

Network Fire Alarm Matrix

Features

- Standard 2U rack size; brushed anodized black aluminum alloy, dark gray chassis
- Fire alarm intelligent connector, supports two input modes: contact input, DC voltage input
- Static IP remains unchanged after network changes, stable performance
- Prioritized alarm signal automatically overrides other signals
- 16CH alarm input, with corresponding LED that lights up if there is signal input
- 16CH broadcast zone auto activation, expandable to 1024 zones, supports auto triggering up to 80 neighboring zones
- Programmable N, N±1, N±2, N±3, N±4 alarm rules
- Customizable alarm bell according to different alarm sources in different locations, making it more distinguishable
- CPU-based intelligent power management: amplifiers automatically hibernate when idle, standby power ⩽0.2W, and start when there is playback task
- Convenient remote upgrade function
- Use multiple sets in one system without quantity limit
- IP reset button to resume factory default

Specification

- Power Supply: AC~220V/50Hz±5%
- Operation Mode: TEST, ALERT, EVAC, CLEAR
- Display Method: status indicator diode
- Alarm Mode: zone alarm mode: alert, evacuate, test
- Alarm Input: 16CH dry contact short-circuit signal
- Communication Protocol: TCP/IP
- Fuse: AC FUSE
- Power Consumption: 5W
- Dimension: 485(W)x330(D)x88(H)mm
- Time: 24-hour format (hh-mm-ss)/week /date
- Network Interface: 1*RJ45 interface (connect to PA center)

IP-A15/A35/A65

Network Power Amplifier

Features

- Fan-cooling, automatically activated when heat sink ⩾55℃
- LCD screen shows temperature and gain status
- Air-raid alarm trigger switch, optional DC24V power supply module. 1CH 3-wire alarm override output for zone alarm: no additional 24V override power module required, the number of audio terminals controlled is unlimited
- Embedded system and DSP technology; built-in decoding module to receive and decode network audio streams. High-speed industrial-grade ARM chip, start-up time at milliseconds
- TCP/IP high-quality digital audio transmission (CD-level, bit rate 320kbps)
- Static IP remains unchanged after network changes, stable performance
- IP reset button to resume factory default
- 1CH network input (volume control), 2CH LINE IN, 2CH MIC IN, for connecting external sound source and emergency broadcast. 1CH EMC IN emergency signal input. Priority-wise, EMC > MIC > AUX/Network Music
- Each MIC/LINE channel has independent digital volume control
- Fully digital control of treble, bass and master volume
- Automatic fault detection and corresponding LED prompt regarding system malfunction, overload, overheat and over-voltage. Compression circuit effectively lowers signal distortion
- 1CH audio output for cascading multiple amplifiers or connecting active monitor speaker
- CPU-based intelligent power management: amplifiers automatically hibernate when idle, standby power ⩽0.2W, and start when there is playback task
- Remote volume control of terminals; set the default volume levels for background music, emergency broadcast and fire alarm broadcast
- Receive any broadcast program from the server through the network, including mic paging, fire alarm auto override, telephone paging, etc.
- One cable for all: utilizing existing network resources, integrate into broadcast/computer/monitor network anywhere through Ethernet via TCP/IP protocol, transmit across network gateway, routers and Internet. Remote IP assignment and network configuration
- Convenient remote upgrade function
- Remote configuration of treble and bass as per playback requirement

Specification

- Network Interface: RJ45, 10M/100M device parameters
- Ambient Temperature: -10℃~65℃
- Ambient Humidity: 20%~80% RH, no condensation
- Power Supply: AC220V/50HZ
- Network Interface Rj45
- Transmission Rate: 10Mbps/l00Mbps
- Supported Protocol: TCP/IP, UDP IGMP (multicast)
- Audio Format: MP3/MP2
- Audio Mode: 16-32 bit stereo CD quality
- Sample Rate: 8K~48K
- Bit Rate: 8K~512Kbps
- EMC Input Sensitivity: 775mV
- AUX Input Sensitivity: 350mV
- MIC Input Sensitivity: 10mV
- Rated Power: 150W/350W/650W
- Standby Power: <0.2W
- Frequency Response: 50Hz~18KHz +1/-3dB
- Harmonic Distortion: THD⩽0.1%
- S/N Ratio: ⩾85dB
- Transmission Mode: 4-16Ω fixed impedance output, 70V/110V constant voltage output

IP-11Y1/Y2

IP Network Active Speaker

Features

- Embedded system and DSP technology; built-in decoding module to receive and decode network audio streams. High-speed industrial-grade ARM chip, start-up time at milliseconds
- Built-in decoding module, 2*20W/8Ω dual-channel output amplifier, stable performance
- Independent IP for receiving customized timed task from server
- High-quality digital audio transmission without noise (CD-level, 32-320kbps adaptive)
- Supports volume and EQ adjustment; fully digital control of treble, bass and master volume
- Expandable intercom or paging function through handheld intercom mic
- Expandable RS232 port for expanding and controlling other devices
- Expandable audio encoding function to send recorded on-site audio back to server for monitoring
- 1CH LINE STEREO IN and 1CH MIC IN, for connecting external audio source (e.g., player, CD, notebook, mic)
- Exquisite wooden enclosure for retaining high fidelity in sound
- Intuitive power indicator and status indicator
- AUX OUT for connecting one complementary speaker
- Reserved 110V signal input for expansion, in case of network or power cut-off, ensuring uninterrupted broadcast
- Remote configuration of treble and bass via software as per playback requirement
- CPU-based intelligent power management: amplifiers automatically hibernate when idle, standby power ⩽0.2W, and start when there is playback task
- Remote volume control of terminals; set the default volume levels for background music, emergency broadcast and fire alarm broadcast
- Receive any broadcast program from the server through the network, including mic paging, fire alarm auto override, telephone paging, etc.
- One cable for all: utilizing existing network resources, integrate into broadcast/computer/monitor network anywhere through Ethernet via TCP/IP protocol, transmit across network gateway, routers and Internet. Remote IP assignment and network configuration
- Convenient remote upgrade function
- IP reset button to resume factory default

Specification

- Network Interface: RJ45, 10M/100M
- 110V Constant Voltage Signal Input Interface
- Bluetooth Module (2.4G): ANT antenna input
- Network Protocol: TCP/IP, UDP, ICMP, IGMP (multicast)
- Audio Format: MP3/MP2
- Supported Code Stream: 32K-320K
- Bandwidth: 20Hz-20KHz
- Sensitivity: 95dB
- S/N Ratio: line: ⩾90dB, mic: ⩾88 dB
- Rated Power: dual channel 2*20W, max 2*30W, industry standard spring terminal

IP-11Y1-F

IP Network Active Speaker

Features

- Embedded system and DSP technology; built-in decoding module to receive and decode network audio streams. High-speed industrial-grade ARM chip, start-up time at milliseconds
- Built-in decoding module, 2*20W/8Ω dual-channel output amplifier, stable performance
- Independent IP for receiving customized timed task from server
- High-quality digital audio transmission without noise (CD-level, 32-320kbps adaptive)
- Supports volume and EQ adjustment; fully digital control of treble, bass and master volume
- Expandable intercom or paging function through handheld intercom mic
- Expandable RS232 port for expanding and controlling other devices
- Expandable audio encoding function to send recorded on-site audio back to server for monitoring
- 1CH LINE STEREO IN and 1CH MIC IN, for connecting external audio source (e.g., player, CD, notebook, mic)
- Exquisite wooden enclosure for retaining high fidelity in sound
- Intuitive power indicator and status indicator
- AUX OUT for connecting one complementary speaker
- Reserved 110V signal input, in case of network or power cut-off, ensuring uninterrupted broadcast
- Remote configuration of treble and bass via software as per playback requirement
- CPU-based intelligent power management: amplifiers automatically hibernate when idle, standby power ⩽0.2W, and start when there is playback task
- Remote volume control of terminals; set the default volume levels for background music, emergency broadcast and fire alarm broadcast
- Receive any broadcast program from the server through the network, including mic paging, fire alarm auto override, telephone paging, etc.
- One cable for all: utilizing existing network resources, integrate into broadcast/computer/monitor network anywhere through Ethernet via TCP/IP protocol, transmit across network gateway, routers and Internet. Remote IP assignment and network configuration
- Convenient remote upgrade function
- IP reset button to resume factory default

Specification

Speaker

- Network Interface: RJ45, 10M/100M
- 110V Constant Voltage Signal Input Interface
- Bluetooth Module (2.4G): ANT antenna input
- Network Protocol: TCP/IP, UDP, ICMP, IGMP (multicast)
- Audio Format: MP3/MP2
- Supported Code Stream: 32K-320K
- Bandwidth: 20Hz-20KHz
- Sensitivity: 95dB
- S/N Ratio: line: ⩾90dB, mic: ⩾88 dB
- Rated Power: dual channel 2*20W, max 2*30W, industry standard spring terminal
- Speaker Impedance: 5" 8Ω, 2.5" 8Ω, w/ crossover
- Speaker Driver: 1*5"+1*2.5"
- Dimension: H*W*D 330×200×170mm
- Power Supply: AC 220V±10%, 50-60Hz / Optional external DC12V/5A
- Standby Power: 0.2W
- Installation: wall-mounted, tabletop

Microphone

- Directivity: unidirectional, condenser
- Sensitivity: -38(dB)
- Frequency Response: 40-16K(Hz)
- Carrier Frequency: 2400-2482Mhz
- Modulation: GFSK
- RF Power: 0dBm
- Wireless Transmission Distance: 15 meters
- Working Voltage: Lithium polymer battery 3.7V
- Continuous Battery Life: 8H
- Transmitter Dimension: 106*33*14mm

IP-35W/IP-50W/IP-70W

IP Series Waterproof Column Speaker

Features

- Embedded system and DSP technology; built-in decoding module to receive and decode network audio streams. High-speed industrial-grade ARM chip, start-up time at milliseconds
- Built-in decoding module, 30W/50W/70W power output speaker, stable performance
- Independent IP for receiving customized timed task from server
- High-quality digital audio transmission without noise (CD-level, 32-320kbps adaptive)
- Supports volume and EQ adjustment; fully digital control of treble, bass and master volume
- CPU-based intelligent power management: amplifiers automatically hibernate when idle, standby power ⩽0.2W, and start when there is playback task
- Remote volume control of terminals; set the default volume levels for background music, emergency broadcast and fire alarm broadcast
- Receive any broadcast program from the server through the network, including mic paging, fire alarm auto override, telephone paging, etc.
- One cable for all: utilizing existing network resources, integrate into broadcast/computer/monitor network anywhere through Ethernet via TCP/IP protocol, transmit across network gateway, routers and Internet. Remote IP assignment and network configuration
- Remote configuration of treble and bass via software as per playback requirement
- Convenient remote upgrade function
- IP reset button to resume factory default

Specification

- Network Interface: RJ45, 10M/100
- Network Protocol: TCP/IP, UDP
- Audio Format: Mp3
- Supported Code Stream: 32K-320Kbps
- Bandwidth: 20Hz-20KHz
- Power Supply: 220V/50Hz
- Standby Power: 0.2W

Model: IP-35W

- Rated Power: 35W
- Dimension: 165*145*440mm

Model: IP-50W

- Rated Power: 50W
- Dimension: 165*145*580mm

Model: IP-70W

- Rated Power: 70W
- Dimension: 165*145*740mm

EBS-1C

Digital Central Controller

Features

- SCM control, single key shuttle, graphic interface, multi-level menu operation mode
- True color 3.0 inch TFT display for intuitive operating status
- Switchable Simplified Chinese/Traditional Chinese/English language
- 2GB memory, max 32G SD card
- Supports weekly timing program and special date timing program
- Supports linking with the PC for editing the timing program, fully automatic power supply, PA zone management
- High precision Maxim RTC clock for timing accuracy up to second
- Fire linkage function for playing the fire alarm music file
- Supports linking with the external power sequencer and controls the external equipments by short circuit signal output
- Supports local PA paging and tele-mic-paging
- Paging controlled by power supply shortcut key, easy and intuitive operation
- Timing playing the program in memory/SD card, 8CH audio timing outputs, 3CH timing power supply outputs
- Powerful music playing function, supports MPEG 1/2 Layer 3, WMA, WAV, OGG, APE, FLAC audio formats
- Powerful media library function for flexible user management of the music documents according to actual requirement
- Powerful audio effect processing function, supports 3D audio/sub-frequency/Play-FX sound effects
- HiFi audio decoding
- Supports HD microphone recording/line in recording/FM recording
- Built-in HD FM radio FM 88-108MHz; supports recording the selected FM program freely
- Supports visual remote control(visual remote control/non-screen remote control for selection)

Specification

- Recording Input: MIC 5mV LINE 500mV
- Output: LINE 500mV unbalanced
- S/N Ratio: ⩾85dB
- Distortion: ＜0.1%(1KHz)
- Frequency Response: 20Hz～20KHz±3dB
- Zone Output: 8 zone outputs, totally max output 3200W
- Controllable Power Supply Output: -220V/50Hz (Max.1600W)
- Net Weight: 5Kg
- Unit Dimension(mm): 485 x 395 x 95mm

EBS Intelligent PA System

EBS-2C
Pre-amplifier

Features

- 10CH input channels including 5 microphone inputs, 3 standard line(AUX) inputs, 2 emergency line inputs
- Microphone 1 takes the top priority input function, emergency inputs(ENC1/2) take the second priority, microphone(MIC 2/3/4/5) and line(AUX1/2/3) inputs take the third priority
- Both microphone input channel and line(AUX) input channel have independent volume controls; ENC1/2 have no volume control; automatically ducking to -30dB; designed with independent treble and bass control

Specification

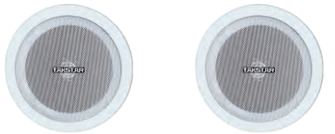
- Microphone Input: 600Ω, 10mV(-54dBV), unbalanced
- Line Input: 60Hz～18KHz
- Frequency Response: 60Hz～18KHz
- Non-linear Distortion: THD＜0.01@1KHz
- Communication Speed: 4800bps
- S/N Ratio: microphone: 65dB, line: 85dB
- Line Output: 600Ω, 1V, unbalanced
- Power Supply: 220V/50Hz
- Power Consumption: 10～15W
- Dimension: 485 x 340 x 88mm
- Weight: 7Kg

EBS Series Intelligent PA System

Campus Stadium

Campus Hallways

Campus Classroom



Campus Library

EBS-06M/EBS-12M/EBS-24M

EBS Series

PA System

Features

- World-class advanced power amplifier circuit, featuring high efficiency, low distortion, high power, low noise, strong load
- Designed with 2CH AUX LINE INs, 1CH EMC(emergency) IN, 2CH MIC INs; and 1CH AUX OUT for cascading next power amplifier
- Independent volume control: LINE 1, EMC IN, LINE 2, MASTER
- Built-in Bluetooth/MP3 function for pushing playback program via mobile phone
- Six zone output buttons
- 1CH EMC IN with the highest priority for emergency alarm signal input
- MIC 1 and EMC IN have the highest priority, which overrides other line inputs, i.e., MIC 2, LINE ½
- Treble and bass adjustment function
- Advanced protection against short circuit, overheat and overload
- Circuit limiter function protects speakers by preventing excessive amplifier output
- Supports a variety of status indicators (power, signal, clipping, protection LED)
- Active fan cooling to ensure long-time operation
- Protection against mains fluctuation, over-voltage or under-voltage

Specification

Model	EBS-06M	EBS-12M	EBS-24M
Output Power	60W	120W	240W
Power Supply	AC220V/50HZ		
AUX Sensitivity	-10dB		
Mic Sensitivity	-40dB		
Frequency Response	80Hz~16KHz±1dB		
Distortion	THD≤0.1%		
S/N Ratio	⩾70dB		
Line Output	0dB		
Protection Circuit	DC Surge, Overload, Overheat, Short Circuit		
Operating Humidity	20%~80% RH, no condensation		
Operating Temperature	-5°C~80°C		
Dimension (mm)	485 x 410 x 90mm		

EBS-24A/EBS-50A

EBS-100A

EBS Series

PA Power Amplifier

Features

- Advanced high efficiency amplifying circuit, high output power and strong load capacity
- Fan for heat dissipation and reliable operation
- RCA/XLR connectors, adjustable volume
- Protection warning function for abnormal operation
- 2U standard enclosure design, Al alloy panel

Specification

Model	EBS-24A	EBS-50A	EBS-100A
Output Power	240W	500W	1000W
Output Way	4-16 ohms(Ω)fixed impedance output, 70V/100V fixed voltage output		
Aux Output	600 ohms(Ω)/1V(0dBV)		
Microphone Input	600 ohms(Ω)/10mV(-54dB)unbalanced		
Line Input	10 KOhm(Ω)/250mV(-10dBV)unbalanced		10 KΩ(-6dB)balanced XLR; 10 KΩ(0dB)unbalanced TRS
Frequency Response	60Hz~18KHz		
Distortion	<0.1% at 1KHz, 1/3 rated power output		
S/N Ratio	Line: 70dB, Microphone: 66dB		
Gain Range	Bass: ±10dB(100Hz), Treble: ±10dB(10KHz)		
Protection	AC fuse: DC voltage, overload and short circuit protection		
Power Supply	AC220V~240V/50~60Hz		
Fuse	8A	10A	10A
Dimension	485 x 410 x 90mm	485 x 410 x 90mm	485 x 410 x 132mm
Weight	14Kg	16Kg	25.5Kg

EBS-6C
Ceiling Speaker

Features

- Full range speaker cone, transparent tone, flat frequency response
- Powerful clip for quick and convenient installation

Specification

- Rated Power: 3W/6W
- Voltage: 70V/100V
- Dimension(mm): Ø198
- Open Pore Dimension(mm): Ø168
- Frequency Response: 110Hz～13KHz

Application

- Hotel, supermarket

EBS-10W
Wall Speaker

Features

- Clear and charming tone, flat music frequency response

Specification

- Frequency Response: 120Hz-18KHz
- Sensitivity: 89dB
- Voltage: 100V
- Rated Power: 10W

Application

- Indoor application, e.g. classroom, supermarket

EBS-25W
Column Speaker

Features

- Rugged and waterproof Al enclosure
- Transparent tone, exquisite contour, professional dust-proof design

Specification

- Rated Power: 25W
- Voltage: 70V/100V
- Dimension: 145 x 130 x 410mm
- Enclosure: Al alloy

Application

- Outdoor use, e.g. supermarket, station, school, park, enterprise

EBS-45W
Column Speaker

Features

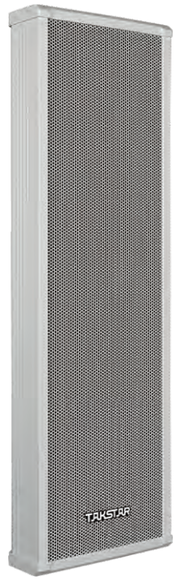
- Rugged and waterproof Al enclosure
- Transparent tone, exquisite contour, dust-proof design

Specification

- Rated Power: 45W
- Input Voltage: 70～100V
- Sensitivity: 91dB
- Frequency Response: 90～16KHz
- Speaker Quantity: 4pcs
- Speaker Dimension: 4 inches
- Dimension: 145 x 120 x 560mm

Application

- Outdoor use, e.g. supermarket, station, school, park, enterprise



EBS-60W
Column Speaker

Features

- Rugged, waterproof, UV-resistant Aluminum enclosure
- Transparent tone, exquisite contour, professional dust-proof design

Specification

- Rated Power: 120W (AES)
- Input Voltage: 70/100V
- Frequency Response: 90Hz~16KHz
- Sensitivity (1W/1M): 92dB
- Driver Size: 6.5" * 3
- Dimension: 225 x 120 x 740mm

Application

- Outdoor use, e.g., supermarket, station, school, park, enterprise

EBS-100W
Column Speaker

Features

- Rugged, waterproof, UV-resistant Aluminum enclosure
- Transparent tone, exquisite contour, professional dust-proof design

Specification

- Rated Power: 200W (AES)
- Input Voltage: 70/100V
- Frequency Response: 90Hz~16KHz
- Sensitivity (1W/1M): 92dB
- Driver Size: 6.5" * 5
- Dimension: 225 x 120 x 1170mm

Application

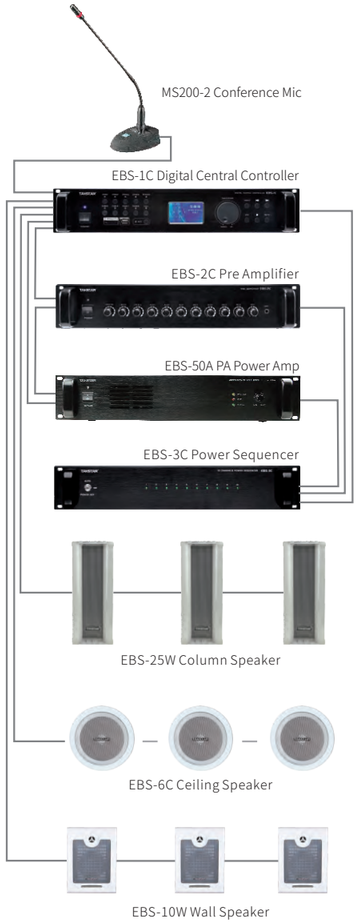
- Outdoor use, e.g., supermarket, station, school, park, enterpriseOutdoor use, e.g., supermarket, station, school, park, enterprise

Solution

Application

Campus | Hotel/Building | Park | Commercial Complex | Prison | Village

System Deployment



Application

Shopping mall, community, station, school, park, enterprise

Campus PA System

Function Description

Conference Mic

Low feedback; red ring status LED; screw-on gooseneck; mute switch; dual power supply (battery/phantom power, auto detect).

Pre Amplifier

MP3 decoding, FM radio; USB/SD card media playback; convenient remote control; 2CH MIC IN, 2CH LINE IN, 1CH AUX OUT.

10-Channel Power Sequencer

Standard 2U rack size, aluminum panel; LED status light; MCU control; 1s power-up interval between channels. 10CH power output, each CH withstands up to AC200V/10A, in total up to AC220V/6KVA; electric lock function; supports manual emergency control of 10CH power output.

Ceiling Speaker

Full range speaker cone, transparent tone, flat frequency response. Powerful clip for quick and convenient installation.

Power Amplifier

Advanced high-efficiency amplifying circuit, high output power, strong load capacity. Newly designed fan cooling system for reliable performance. RCA/XLR connectors, adjustable volume.

Outdoor Column Speaker

Rugged, waterproof, UV-resistant Aluminum enclosure. Transparent tone, exquisite contour, professional dust-proof design.

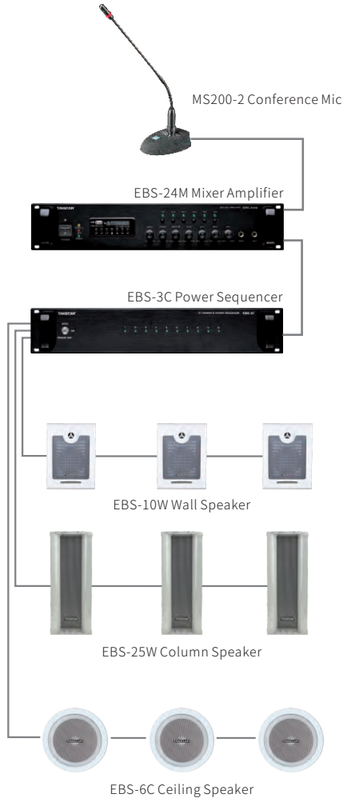
Digital Central Controller

Microcomputer control, single jog wheel, graphical UI, multi-level tree menu. Supports programmable scheduled task for fully automatic power on/off and PA zone management. Built-in HD FM radio, FM 88-108MHz with FM recording function.

Recommended Configuration

Application	Type	Model
■ Campus	Digital Central Controller	EBS-1C
	Pre Amplifier	EBS-2C
	10-Channel Power Sequencer	EBS-3C
	Power Amplifier	EBS-50A
	10W Wall Speaker	EBS-10W
	Outdoor Column Speaker	EBS-25W
	Ceiling Speaker	EBS-6C
	Conference Microphone	MS200-2

System Deployment



Application

Hotel, shopping mall

Mall PA System

Function Description

Conference Mic

Low feedback; red ring status LED; screw-on gooseneck; mute switch; dual power supply (battery/phantom power, auto detect).

Mixer Amplifier

Mp3 decoding, FM radio; USB/SD card media playback; convenient remote control; 2CH MIC IN, 2CH LINE IN, 1CH AUX OUT. Two output modes: constant voltage 70V/100V, fixed impedance output 4~16Ω. Each channel has independent volume control, with adjustable treble/bass volume. Top-priority mic overrides others. LED alert upon overload, overheat and short-circuit.

Ceiling Speaker

Full range speaker cone, transparent tone, flat frequency response. Powerful clip for quick and convenient installation.

10-Channel Power Sequencer

Standard 2U rack size, aluminum panel; LED status light; MCU control; 1s power-up interval between channels. 10CH power output, each CH withstands up to AC200V/10A, in total up to AC220V/6KVA; electric lock security function; support manual emergency control of 10CH power output.

Ceiling Speaker

Full range speaker cone, transparent tone, flat frequency response. Powerful clip for quick and convenient installation.

Outdoor Column Speaker

Rugged, waterproof, UV-resistant Aluminum enclosure. Transparent tone, exquisite contour, professional dust-proof design.

Recommended Configuration

Application	Type	Model
■ Small/Medium/Large Shopping Mall	Mixer Amplifier	EBS-24M
	10-Channel Power Sequencer	EBS-3C
	10W Wall Speaker	EBS-10W
	Outdoor Column Speaker	EBS-25W
	Ceiling Speaker	EBS-6C
	Conference Microphone	MS200-2

Note: The output power of the Mixer Amplifier should match the total power of wall/outdoor/ceiling speakers.

Campus PA Solution

■ Description

Campus PA system is a vital and indispensable part of school publicity works, especially in a digital and smart campus. As education informatization continues to develop, system interconnectivity becomes a basic requirement for campus infrastructure construction. Takstar Campus PA System is an IP-based digital audio system that utilizes leading, self-developed XCoIP™ technology. It helps to resolve the many issues that trouble traditional PA system, such as limited transmission range, poor audio quality, lack of interaction and remote management. The system also provides comprehensive functions including scheduled class bell, real-time recording and broadcasting, paging, zone broadcasting, on-demand audio broadcasting, etc.

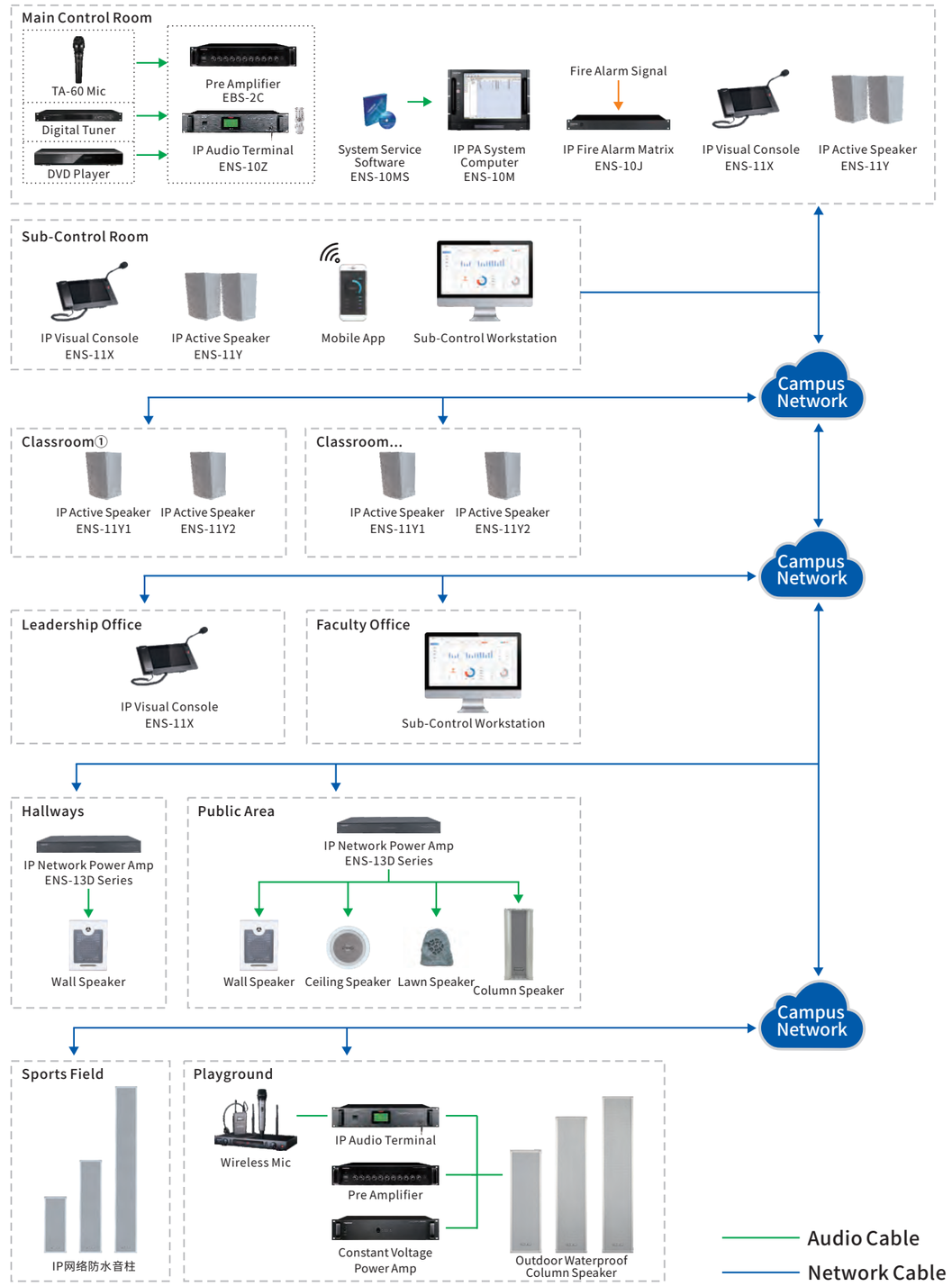
■ Functions

① Broadcast: daily class bell, real-time audio recording and broadcasting, voice amplification, on-demand broadcasting, real-time notification broadcast.
② Intercom: two-way intercom between paging mic and terminal, or between terminal and terminal. Used for daily or emergency communication.
③ Monitoring: real-time monitoring of class status without affecting target terminal task. Used for teaching evaluation or audio fault detection.
④ Announcement: announcement at specific time or by countdown, including silent (screen) broadcast.
⑤ Mobile Sub Control: initiate broadcast or intercom, view and change terminal info via mobile client.

■ Advantages

① Easy Deployment: supports PC and mobile client management, supports Windows/Linux system, supports multi-server cluster management.
② Simple Management: all terminals are connected to the campus network via network cable, to be controlled individually or zone by zone.
③ Rich Functions: broadcasting and intercom are managed by the same server; supports two-way intercom, audio/video conference, scheduled/real-time broadcast, file broadcast, text-to-speech broadcast, telephone broadcast, wireless intercom broadcast, SMS broadcast and fire alarm broadcast.
④ Comprehensive Products: a complete range of terminal devices available for building the most appropriate solution.
⑤ Secondary Development: provides standard SDK protocol to help integration into different projects.

System Deployment



Hotel/Building PA Solution

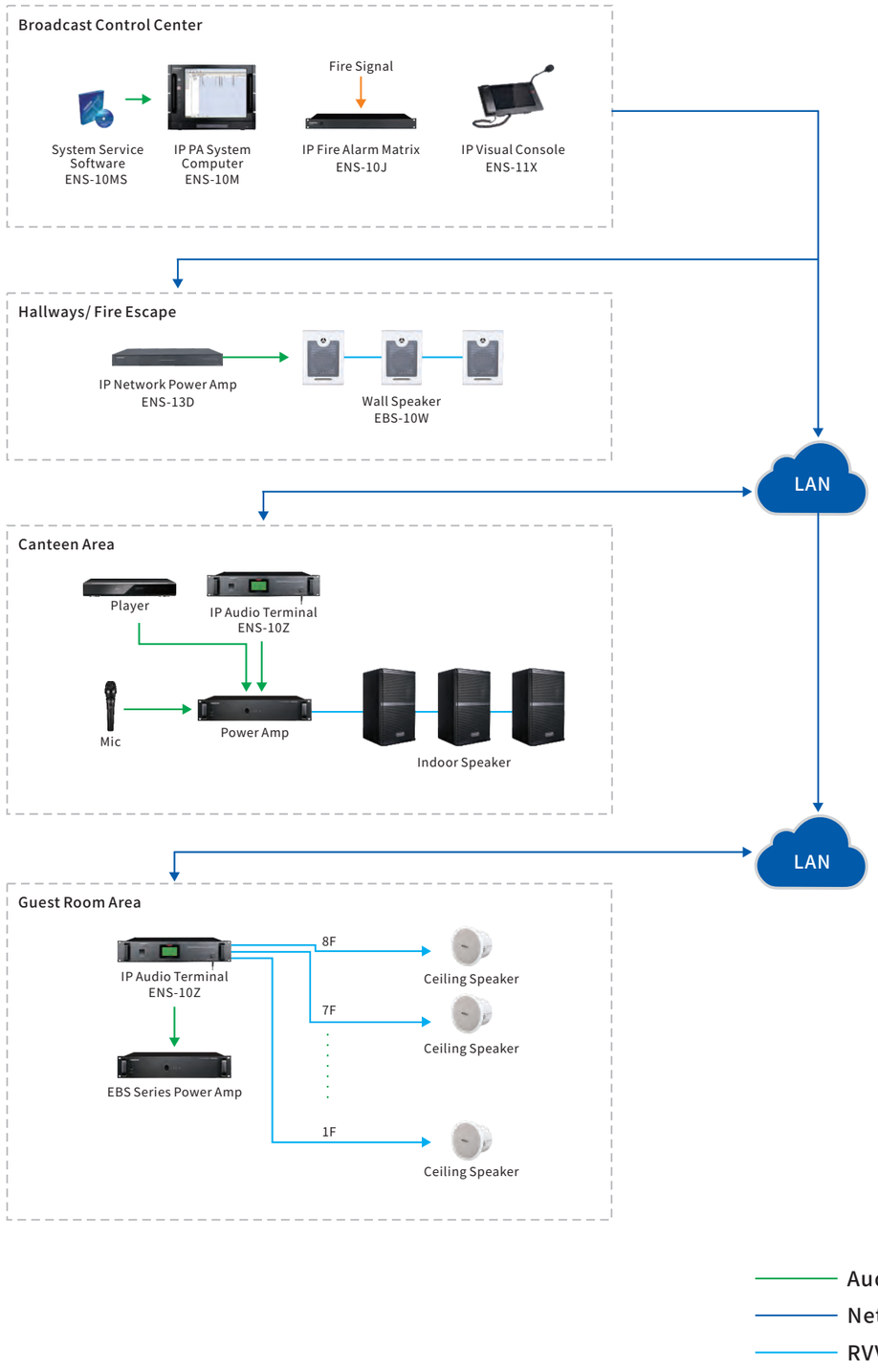
■ Industry Background

Public address system has become an indispensable part of modern day building design, especially for highly populated skyscrapers. In day to day life, it can help create a soothing work environment by playing background music, and shall any emergency occur such as a fire, it can also be used to instruct and evacuate everyone inside the building in an orderly and timely manner, minimizing casualties.

■ Overall Objective

In conformity with international trends, Takstar has combined both the BGM broadcast system and fire alarm broadcast system into one PA system for hotels & buildings. Other than regular broadcast and music playing functions, this integrated PA system is also able to, in case of a fire, send out emergency broadcast in affected region automatically or in manually selected region as well.

System Deployment



Park PA Solution

■ Industry Background

Public address system has become an essential part of modern day design in park & scenic areas, especially where there are crowds. In day to day life, it can help create a soothing touring environment by playing background music, and shall any emergency occur such as a fire, it can also be used to instruct and evacuate tourists in an orderly and timely manner, minimizing casualties.

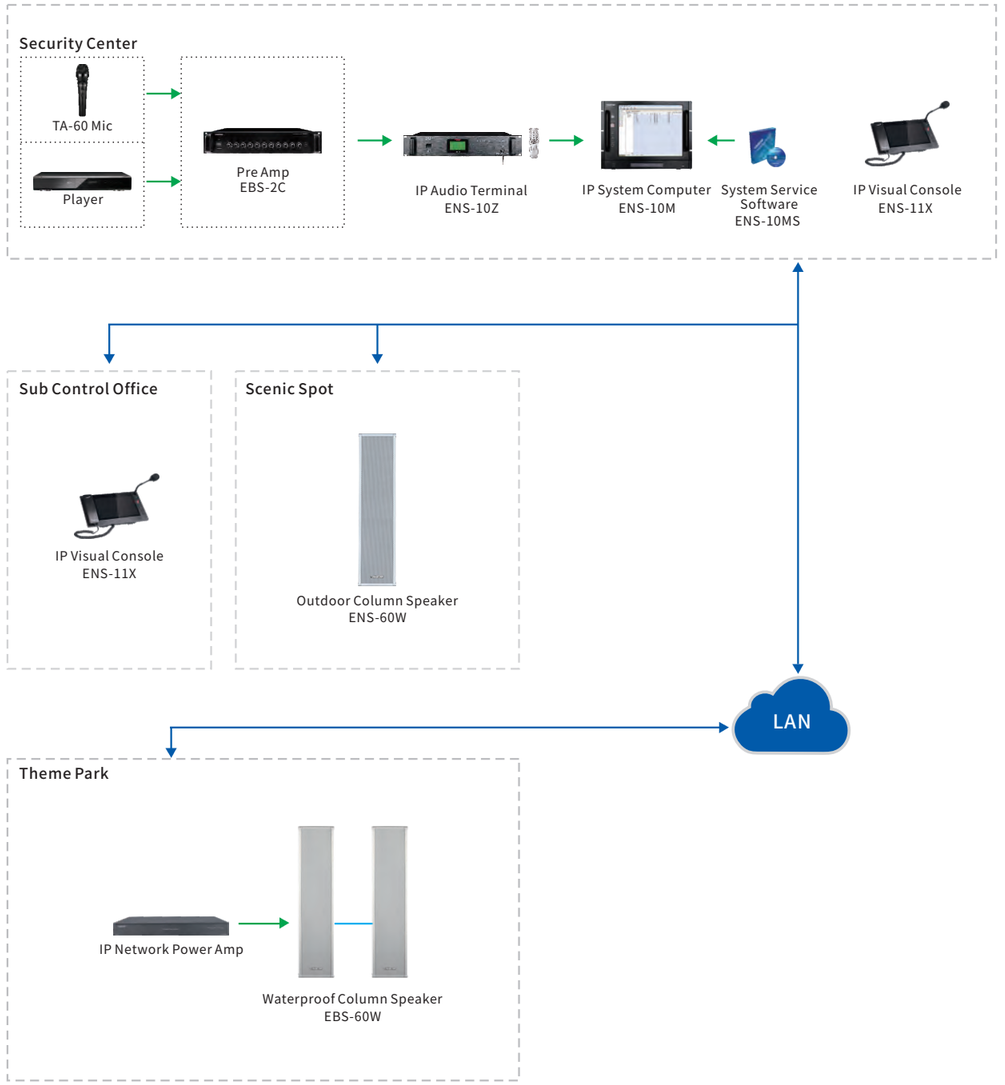
■ Overall Objective

In conformity with international trends, Takstar has combined both the BGM broadcast system and Fire Alarm Broadcast system into one PA system for parks & scenic spots. Other than regular broadcast and music playing functions, this integrated PA system is also able to, in case of a fire, send out emergency broadcast in affected region automatically or in manually selected region as well.

■ Main Functions

① Integrate into existing fiber optic network, saving resources
② Unattended operation, auto BGM broadcasting for park-wide visitors
③ Broadcast different music to different zones at different volume levels
④ Broadcast to individual terminal, specific zones or the whole area via IP mic, for quick alert or guidance
⑤ Set up multiple paging stations (e.g., guard station, service station), for easy access
⑥ Set up help stations for emergency intercom with on-duty personnel at the security center

System Deployment



Commercial Complex PA Solution

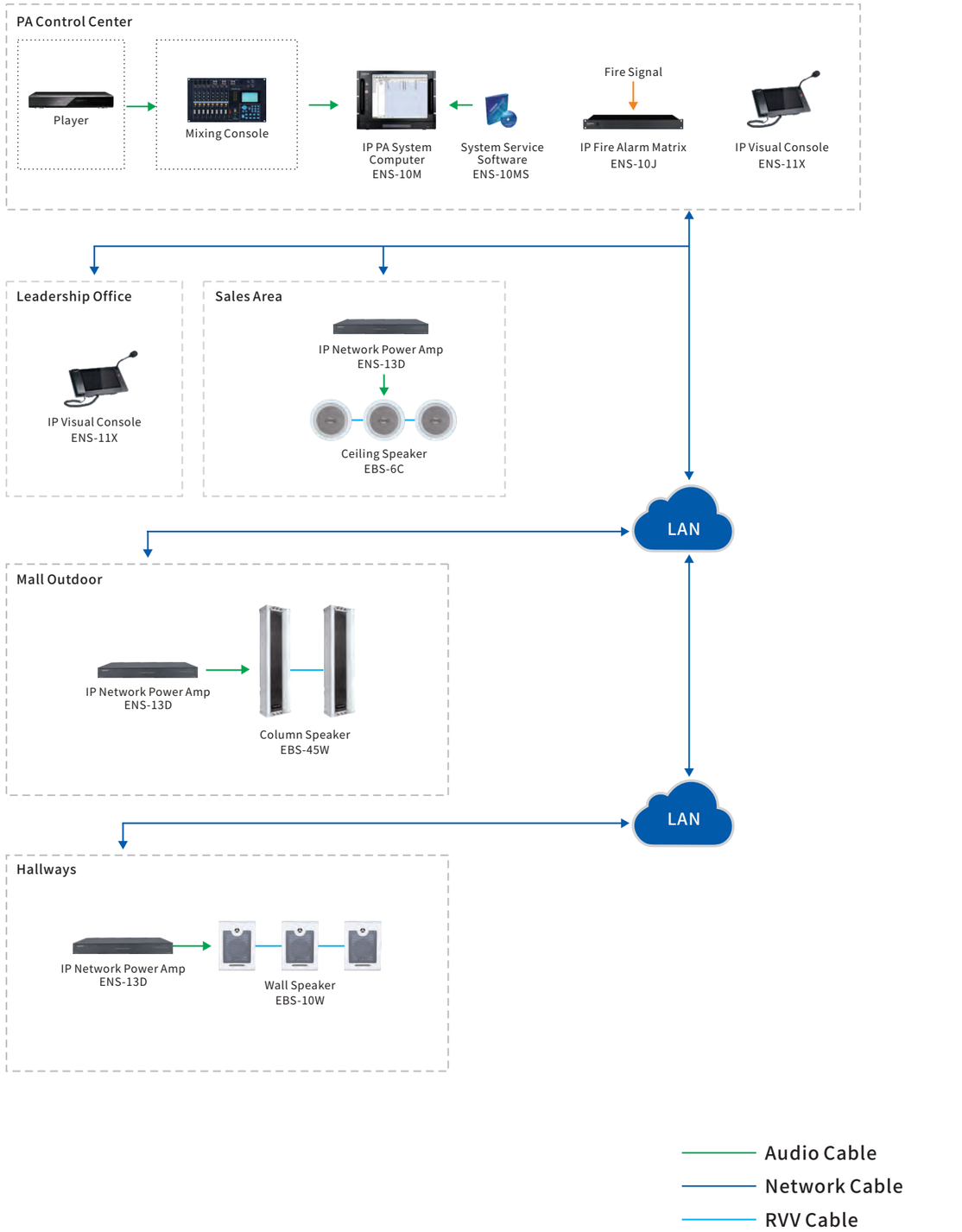
■ Industry Background

As urbanization accelerates, commercial complex, a new real estate form, has emerged as a main force in urban construction, partly because that, in its variable forms, it is in line with the many different demands of modern consumers and city development. However, the complex nature of commercial complex warrants better security measures and higher efficiency, such as centralized management and real-time monitoring.

■ Main Functions

① By integrating into existing computer network or setting up a dedicated PA network, connecting with IP network audio terminal, the large commercial complex PA system can provide up to 8 channels of quality music broadcasting. It is suitable for information dissemination and BGM application in hotels, large shopping malls, office buildings, parking lots, and it can also provide regular bell ringing function for office buildings.
② Centralized management with many sub stations expandable (e.g., mall broadcast room, office building PA station, hotel broadcast room, parking lot broadcast room) to achieve PA service within the parking lot, different floors and the whole complex.
③ Fire alarm linkage. Under emergency, automatically trigger alarm on the area and neighboring areas based on preset. Each floor uses cost-effective IP audio terminals, each terminal and amp can manage audio signal of multiple floors.

System Deployment



Campus PA Solution

■ Industry Background

Campus PA system is mainly used for dissemination of information, playback of school bells, and multimedia education including English listening task broadcast. It replaces traditional electric bell system with automatic PA system, and has a plethora of functions such as: scheduled playback, remote zone broadcast, remote class preparation, multimedia teaching, and remote PA paging.

■ Main Functions

Designed with school demands in mind, in the principle of being Practical, Reliable, Open, Compatible & Standardized, the campus PA system, consisting of campus PA and fire alarm PA functions, is able to achieve the following:

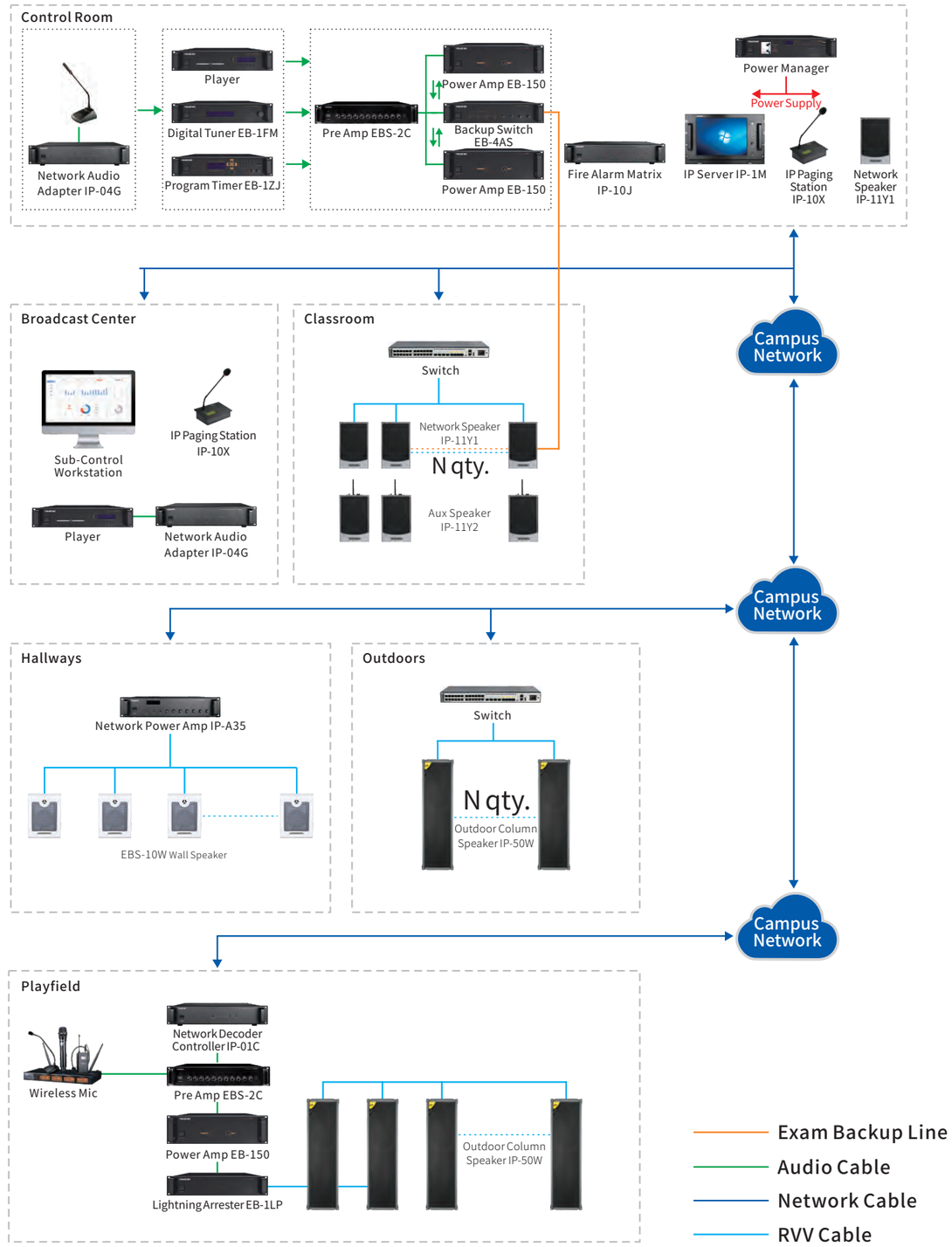
① School Broadcast Room: the brain of the IP Network PA System, controls Scheduled Classbell, BGM Broadcast, English Listening Exam Broadcast, Two-Way Intercom between terminals, Remote Paging, Monitoring of broadcast contents.

② Classroom Area: core school area. Each classroom can deploy IP Network PA Terminals which can also be used for sound reinforcement by connecting to a multimedia computer.

③ Campus Radio: broadcast campus information in students' leisure time, enriching campus life

④ Conduct intercom or PA remotely in Leadership Office towards the whole campus or particular schools

System Deployment



Hospital PA Solution

■ Project Requirements

① Deploy speakers in each floor with fire alarm function. Reliable, visualized computer control.
② Some clinic speakers are required to be turned off at regular hours, but should be able to receive emergency broadcast at any time.
③ Leaders should be able to speak to the whole hospital or certain departments in their own offices.
④ Different places (e.g., department, outpatient lobby) should be able to play different audio at the same time.

■ Main Functions

① Fire Alarm
Each floor is considered a fire control zone. The fire alarm will automatically trigger on the floor that receives fire signal, or be set so that the upper and lower floors are also alerted for more thorough warning.
②Automatically force turn on speaker during alarm
The system will also use the 24V override power to turn on any speakers that are off for emergency alarm broadcast.
③ Scheduled program broadcast to different areas
The system is able to play different audio in areas wherever appropriate. For example, soothing music in rehabilitation area, or drug introduction at pharmacy section.
④ Direct address by the director to a department
The director is able to, in his office, page certain departments or divisions for address. A paging station is also set in the duty office for the duty staff to deliver information timely.

System Deployment