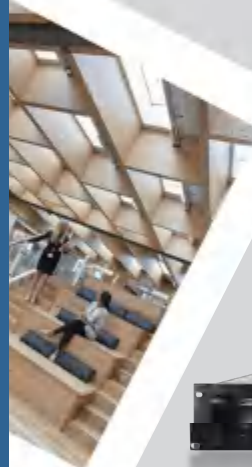Soundking

DIGITAL PUBLIC BROADCASTING SYSTEM

R & D Background

With the development of Internet, two-way talkback broadcasting can hardly meet the needs of a wide variety of people without their voice and a single audio transmission, so the transformation of broadcasting innovation has become an urgent issue to be solved. Soundking Visual PA Platform is designed to innovate broadcasting convergence ideas, expand broadcasting boundaries and improve broadcasting communication effect.

The Soundking visual PA platform connects to the existing monitoring, sound pickup and other systems and third-party platforms, and uses the existing network to capture live pictures and audio in real time, and send it to the designated IP broadcasting terminal or visual talkback terminal, business broadcasting, background music and emergency broadcasts, etc., can realize special broadcasts according to on-site conditions, achieve remote online visual broadcast functions, and what you see is what you get. With visual talkback terminals, remote real-time audio and video synchronous talkback or single-item audio and video monitoring can be realized.

The visual network PA system is based on the combination of the Soundking protocol and the TCP/IP protocol, and transmits the audio and video signals in the form of data packets on the local area network and the wide area network. It is a two-way audio and video system based on digital technology. It completely solves the problems of poor sound quality, limited transmission distance, and only the sound of the traditional broadcasting system, which cannot be seen by others.

Realize modular layered construction, highly integrated and intelligent visual network PA system. The system is all-digital transmission, with the network as the main transmission medium, the transmission distance is up to tens of kilometers. It can realize multi-network integration, break through the pattern of traditional public broadcasting that can only be downloaded and can only be centrally controlled through the computer room, and has powerful interactive functions.

Applications

Smart campuses, smart communities, smart parks, smart buildings, troops, enterprises, airports, stations, subways, theme parks, villages and towns, etc.
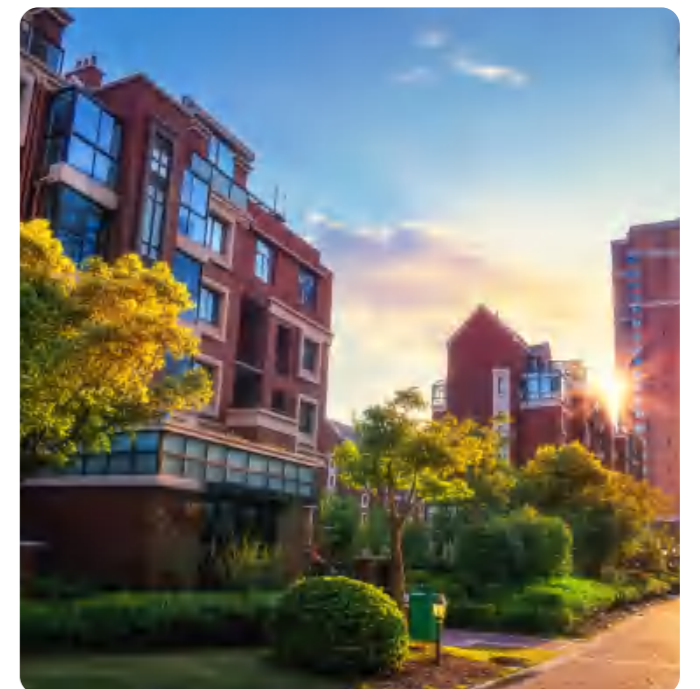

Campuses

Theme parks

Stations

Communities

Cloud PA
Cross-region network / Internet platform / Large-scale centralized management

The PA system deployed and implemented by the Internet computing model which breaks the traditional performance bottleneck of a single server, supports multi-level and cross-regional broadcasting, and builds an IP network PA system in the province and even the whole country. Use the existing wide area network to broadcast voice announcements, background music and emergency broadcasts to designated IP broadcast speakers or talkback terminals.

Cloud broadcasting is mainly composed of cloud broadcasting edge computing service center, cloud PA management platform, mobile phone application software, 4G/5G terminal and other equipment.

Advantages

Easy to use, simple to operate, the system interface is simple and clear. Easy to deploy, not subject to geographical restrictions, low grid requirements, plug-and-play equipment, and simple deployment. Easy maintenance, equipment fault self-check, support remote OTA upgrade, easy maintenance. Easy to expand, support any number of terminal access, the system capacity can be large or small, any expansion and adjustment of the system. Support innovative ecological construction: support secondary development.

Online PA
Single building/ LAN/ Small area centralized management

Two-way audio amplification system based on network digital technology transmission transmits and amplifies audio signals in the form of data packets over local area network and wide area network.

Online PA mainly consists of networked broadcasting host, smart paging microphone, networked wall-mounted speakers, rack-type networked terminal, indoor and outdoor visualized talkback terminal, etc.

Advantages

With greater flexibility, the use of online PA technology can realize the dynamic grouping of audio broadcasting terminals through control signals, thus realizing the dynamic subarea broadcasting and improving the system flexibility. Sound quality is better. Online broadcasting realizes digitization and networking from program production to program transmission. It only controls sound quality through the quantization and encoding of digital audio and decoding algorithms, and does not produce noise and crosstalk in the transmission link, so it can get better sound quality. Installation is simple. As a network terminal device, the broadcast system based on online transmission can be easily embedded into the original network system, thus eliminating cable laying and installation of transmission equipment, further reducing system costs and making installation more convenient.

Cloud PA edge computing service center(no screen) - YUN01

APP V3.0 for smart phone—YUN02

Features:

◆Supports the Android operating system for remote monitoring and control.
◆Supports mirror text information of LED display to terminals.
◆Support song upload server function.
◆Control the playback of songs and adjust the volume on partition.
◆Supports selected zone or overall paging.

Management software V3.0—YUN03

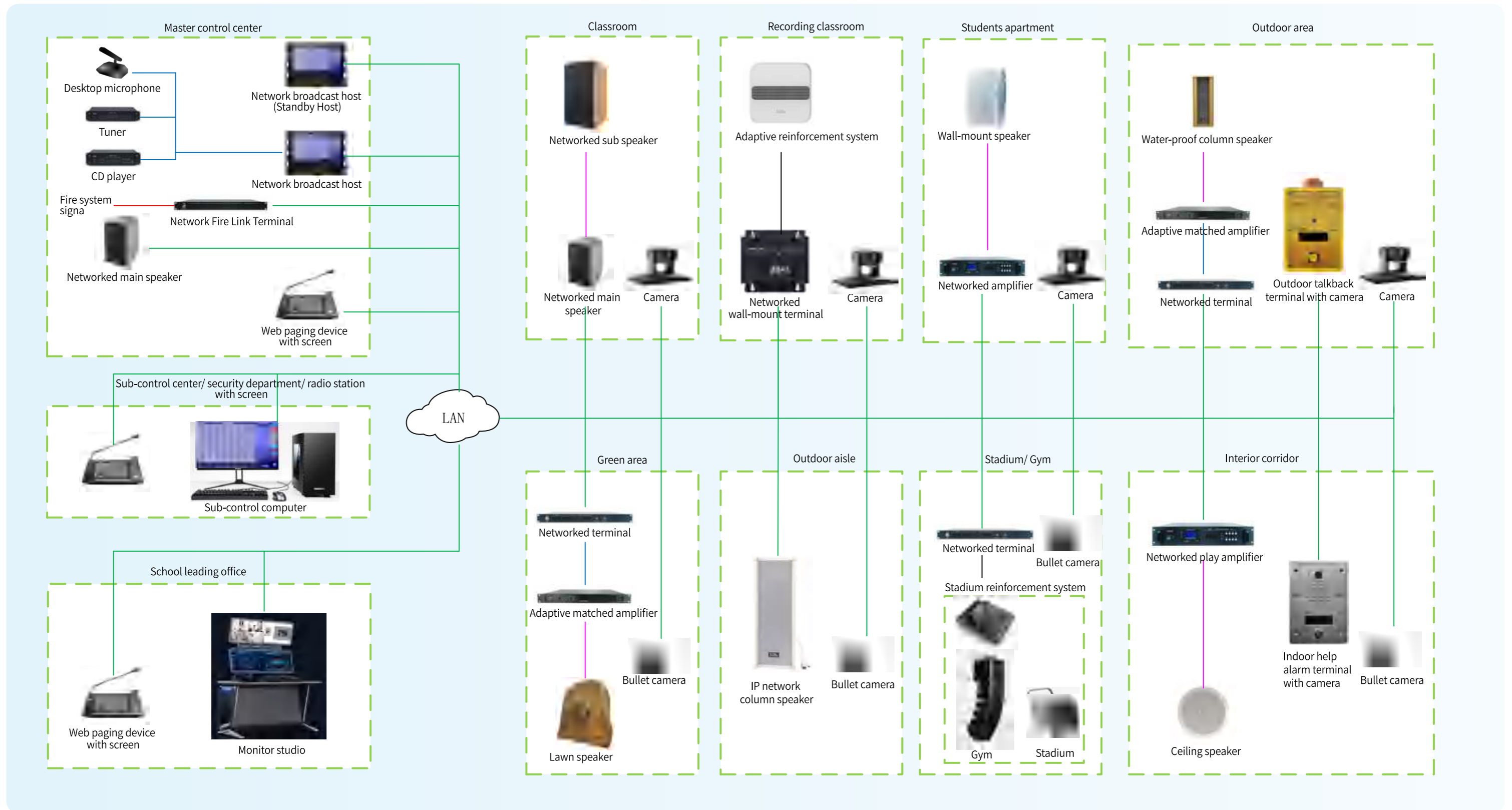**Features:**

◆ Supports 100/10Mbps adaptive TCP/IP network transmission protocol.
◆ Support Windows XP and win7 operating systems.
◆ Multiple PCs can connect to the network host remotely at the same time.
◆ User-friendly Graphics, network playback terminal display pictures can be defined and replaced, more flexible application.
◆ You can view the working status information (including online, offline, play, stop, etc.) of the network playback terminal.
◆ Group editing function for network playback terminals.
◆ The contents of programmed timepoints can be downloaded and viewed, and the contents of timepoints can be imported and exported.

◆ You can view the program library of networked hosts.
◆ Local audio programs can be uploaded to a networked host for playback.
◆ It can remotely adjust the volume of network playback terminals, play\stop network playback terminals and other operational functions.
◆ Real-time remote paging network playback terminal.
◆ It triggers the emergency alarm function.
◆ Set up multilevel rights control function, with network rights authorization management function.
◆ User password login mechanism.

Features:

◆ Cloud PA Edge Computing Unit and Cloud keep data synchronized. Audio-Video Streaming Media Server+ File Server+ Campus PA Professional Setup Software+ Intelligent Integration of LAN and Internet
◆ Third-party RESTFul API development interfaces. (Provide interface documentation, and docking test Demo)
◆ Online preview of media files and auditing of media files, audio and video files uploaded by teachers need to be audited by administrators before they can be played.
◆ Regional broadcasting equipment management and load balance;
◆ Support any flexible expansion of regional multi-terminal, with a maximum area of more than 2000 expandable terminals.

◆ Cross-region clock synchronization;
◆ Fault diagnosis, logging;
◆ Remote upgrade and maintenance;
◆ Built-in WEB operation control page;
◆ Audio and video material management;
◆ Data backup function, real-time synchronization of local server and cloud data, to meet the same local area network and Internet experience, integrated use; (A live demonstration of the features is provided.)
◆ Built-in WEB operation control page; Support timed task settings;

Networking PA system

Highlight introduction

1. The system integrates background music, public address, information release broadcasting and emergency broadcasting to meet the market demand for the use of PA systems;

2. The system is a highly integrated and intelligent PA system based on computer network technology and modules.

3. The system has strong functional zoning management, and can link with fire control center through fire control linkage terminal to contain all emergency incidents in the embryonic stage.

4. This system is widely used and preferred for medium and large public address.

Master control center

- Desktop microphone
- Tuner
- CD player
- Network broadcast host (Standby Host)
- Network broadcast host
- Fire system signa
- Network Fire Link Terminal
- Networked main speaker
- Web paging device with screen

Sub-control center/ security department/ radio station with screen

- Sub-control computer

School leading office

- Web paging device with screen
- Monitor studio

LAN

Classroom

- Networked sub speaker
- Networked main speaker
- Camera

Recording classroom

- Adaptive reinforcement system
- Networked wall-mount terminal
- Camera

Students apartment

- Wall-mount speaker
- Networked amplifier
- Camera

Outdoor area

- Water-proof column speaker
- Adaptive matched amplifier
- Networked terminal
- Outdoor talkback terminal with camera
- Camera

Green area

- Networked terminal
- Adaptive matched amplifier
- Lawn speaker
- Bullet camera

Outdoor aisle

- IP network column speaker
- Bullet camera

Stadium/ Gym

- Networked terminal
- Bullet camera
- Stadium reinforcement system
- Gym
- Stadium

Interior corridor

- Networked play amplifier
- Indoor help alarm terminal with camera
- Bullet camera
- Ceiling speaker

NETWORK HOST- GMA01

FEATURES:

◆ Has 10Mbps/100Mbps/1000Mbps adaptive Ethernet interface, supports multiple network transmission protocols such as TCP/UDP/ARP/HTTP, supports cross-switch, router, Internet connections;

◆ Adopts 17.3-inch 1920*1080 industrial grade 32-bit true color ultra HD screen and industrial grade resistive touch screen design;

◆ Adopts HM65 industrial motherboard, Intel@ HD Graphics card, Core I5/I7 CPU, 8G DDR3, supports 1600/1333/1066 MHZ memory, adopts mSATA /128G SSD design;

◆ Adopts digital DVD drive, with strong error correction capability;

◆ With timed switch-on and switch-off functions;

◆ HDMI video output expansion interface for extended large screen display;

◆ Has 1-way line input priority function, set priority events, automatically open corresponding broadcast zone for broadcasting according to the strength of the input signal, this feature works perfectly with wireless microphones for temporary broadcasting or connecting external players with the system for audio broadcasting;

◆ One-button regional emergency fire broadcasting function, manual emergency broadcasting function for particular region, automatic fire broadcasting triggering function, emergency

microphone automatic EMC priority function;

◆ Multifunctional microphone for service paging and emergency paging, automatically switches service paging and emergency paging functions;

◆ Uses graphical design interface, displays partition and grouping functions,set the back view of the partition display area, set the order in which partitions and groups are arranged, display area has cyclic display function;

◆ Timed broadcast function，multiple timing strategies can be set, set the priority level of the timed program，set intelligent timed switch-on/off of intelligent trigger shortcircuit interface;

◆ Live monitoring function and output monitoring function for decoding player;

◆ Multi-level priority setting function, setting different program source priority levels according to different customer requirements;

◆ Logging function, device failure indication function;

◆ External audio program production function, can convert analog signals into server program library program source, save as high fidelity 320kbps/MP3 format, the server can add high fidelity 32k~320kbps / MP3 audio programs.

SPECIFICATIONS:

Screen size	17.3-inch LCD screen	Control method	touch screen
Audio signal to noise ratio	LINE:≥75dB;	Line output level	0dBV
	MIC: ≥70dB	Self power comsumption	≤150W(AC
Audio distortion	1kHz≤0.5%	supply voltage	AC180V ～ 240V
Line input sensitivity	LINE : 250mV;	Dimension（L×W×H)	482×441×358mm
	MIC :10mV	Net weight	18.4kg

Network Master control software – GMA02

FEATURES:

◆ Supports genuine Windows XP and win7 operating systems;

◆ Support 100M/10M adaptive TCP/IP transmission network;

◆ Powerful broadcast matrix, built-in large program source space, can customize program source according to user needs;

◆ The partition monitoring function enables real-time monitoring and operation of the playback status and volume of the partition terminal;

◆ With recording function, users can make their own program source, which can be recorded locally or copied from a remote control computer;

◆ It has business and emergency external microphone input, and has two different level sensitivity interfaces of 5mV and 3mV, respectively, to expand the wireless microphone.

◆ It has a handheld emergency microphone, and has the function of automatic switching of business and emergency alarm. When emergency alarm occurs, the microphone has the priority of smart level EMC.

◆ The network audio acquisition terminal can be used to expand the audio input channel and expand the external input program source infinitely.

◆ The program can be programmed and played regularly. The system runs according to the pre-programmed program and can be left unattended. you can play a variety of sound source types of bedtime ringtones manually or regularly every day. different zones can play different programs and different zoning volume at the same time.

◆ Timing control function, can edit the timing point on the machine, also can download the timing point from the computer to the machine;

 Terminal broadcast program: the host can assign broadcast audio source to each partition one by one, or the program audio source on the host can be ordered by the terminal alone;

◆ Forcibly inserted paging: the main control room can paging separate areas or all areas on the host computer, with the function of telephone paging;

◆ Intercom function: if the system set up a number of partitions, partitions can be edited to achieve a group of multiple terminals paging, and between the two terminals can also be paging intercom;

◆ Grouping function: it can set up the management function of grouping area for network playback terminal, which is convenient for management and operation；

 Remote control: the remote control computer is any computer in the LAN, it is equipped with the control software of the system, the system can be operated and controlled and modified;

 Equipped with fire center interface, automatic strong plug alarm, and support short circuit alarm (alarm card) and network signal alarm (AXT8132);

 The broadcast program before the disconnection will automatically resume after the disconnection of the terminal;

 Support terminal timing point backup function, timing point content can automatically back up to the network playback terminal；

 With multi-level audio source priority management function, default is 7 priority level;

 It can set the connection between the EMC 24V output signal of the playback

terminal or the short-circuit intensity broadcast output signal and the multi-level priority program source, and can set the delay time shutdown function;

 With log view function, you can view the operation and operation of the device;

 Using the graphic human interface design, the partition state information is clear is very clear;

 Integrated background broadcast, business broadcast, emergency broadcast powerful broadcast function;

 It can connect a variety of network expansion equipment, including network audio collector, network phone pager, network wireless remote control, network fire linkage terminal... ;

 It can edit and manage the built-in massive program source, and has the function of recording the external input audio source, which is highly practical.

 Support unattended function, effectively reduce maintenance costs;

 Network transmission format can be set;

 Support multi-language switching between Chinese and English.

NETWORK SUB-CONTROL PAGING SOFTWARE
GMA03

FEATURES:

 Support 100/10Mbps adaptive TCP/IP network transmission protocol;

 Support genuine Windows XP and Win7 operating systems;

 Multiple PCs can be connected to the network host remotely at the same time.

 Humanized graphic design, network playback terminal display pictures can be defined and replaced, more flexible application;

 You can view the working status information of the network playback terminal (including online, offline, playback, stop and other information);

 Network playback terminal can be grouped editing function;

 The contents of programmed timepoints can be downloaded and viewed, and the contents of timepoints can be imported and exported.

 You can view the program library of networked hosts.

 It can upload local audio programs to the network host for playback.

 It can remotely adjust the volume of network playback terminals, play\stop network playback terminals and other operation functions;

 Real-time remote paging network playback terminal;

 It triggers the emergency alarm function;

 Set up multi-level rights control function, with network rights authorization management function;

 User password login mechanism.

INTELLIGENT PAGING STATION - GMA04

FEATURES:

◆ Customize partition and grouping functions, limit user partition access, different users can display different limited partitions;
◆ Paging and talking functions, set up hands-free automatic answering and timeout call automatic transfer function;
◆ Built-in AGC automatic gain control system, built-in microphone speech level detection circuit, with intelligent automatic Page-Off function;
◆ Set up network protocol single and multicast transmission mode, suitable for all kinds of complex network transmission environments (adopts when cross-three-tier switch, router, core switch are required);
◆ Built-in network playback function, play network host program library or local USB program source, control partition broadcast

(separately controling partition broadcast program), pre-listen to the program library songs on the host;
◆ One-way line input and one-way line auxiliary output, facilitate users to expand the use of wireless microphone and local external sound reinforcement;
◆ Line input detection function，can automatically access preset broadcast partition for paging broadcast, suitable for external wireless microphone connection, no need to manually operate paging button, just switch on wireless microphone to broadcast in real time;
◆ Real-time paging audio delay is less than 50mS;
◆ Monitor function, arbitrarily monitor output sound of the broadcast partition and ambient sound of the playbalck terminal.

SPECIFICATIONS:

Input sensitivity	Line input (output 1V)：300(±50mV)	Power supply	AC180-240V
	Mic input (output 1V)：50(±10mV)		50Hz-60Hz
Effective frequency range of gain limit	Line input：40-20000Hz(±3dB)	Total power consumption	15W
	Mic input：60-16000Hz(±3dB)	Display	7-inch resistive screen
Monitor power output	3W	Dimension（W×H×D）	320×200×62mm
Signal to noise ratio（A Weighting）	≥80dB	Net weight	1.9kg

NETWORKED SPEAKER - GMA05

FEATURES:

◆ 10Mbps/100Mbps adaptive Ethernet interface, support multiple network transmission protocols such as TCP/UDP/ARP/HTTP, support cross-switch, router, Internet connections;
◆ Built-in 1-way line input, 1-way microphone input, 1-way line output, can customize the priority level of local and network audio, built-in 1-way audio data RS485 expansion bus, with bus expand various kinds of extension equipment;
◆ EMC short circuit/24V output trigger interface, connected to control volume controller or sequential power supply;
◆ Built-in 2*20W high-efficiency digital power amplifier, built-in 20W/4 Ohm fixed-resistance speaker, speaker maximum sound pressure level can reach 105dB, can be connected to an external 20W/4 Ohm sub-speaker;
◆ Embedded HTTP web server, through PC software or HTTP to modify device network parameters, support network remote upgrade;
◆ Built-in DSP sound processor, through the remote control to adjust effect processing of high and low frequencies;
◆ 100V constant-voltage amplifier audio backup input function; users can choose network or 100V input priority;
◆ Built-in 10Mbps/100Mbps adaptive Ethernet dual-network interface, built-in switch function, support device hand-in-hand or star connection;
◆ 1 way fire prevention short circuit linkage trigger input interface.

SPECIFICATIONS

Frequency response	20Hz-20kHz		Rated power	20W
Distortion	≤0.1%		Frequency response	100Hz-16kHz
Signal to noise ratio	≥78dB		Maximum sound pressure level	105±3dB
Rated output	1V		Power supply	AC150-250V/50Hz- 60Hz
Input sensitivity	8mV		Dimension（W×H×D）	180×230×304mm
Built-in speaker			Net weight	4.7kg

NETWORK MINOR SPEAKER- GMA05F

FEATURES:

◆ 20W/4 ohm fixed resistance speaker

SPECIFICATIONS:

Rated power	20W/4 ohm
Frequency response	100Hz-16kHz
Maximum sound pressure level	105±3dB
Dimension（W×H×D）	180×230×300mm
Net weight	3.8kg

4-CHANNEL AUDIO ACQUISITION TERMINAL- GMA06

FEATURES:

◆ Each module supports 4 channels of audio input simultaneously, and one set of network broadcasting system supports multiple sets of audio collection modules;
◆ Adjustable audio input sensitivity , wide input dynamic range;
◆ Network parameters can be configured through a PC, modification is convenient;
◆ High fidelity CD sound quality encoding chip, support maximum 48KHZ sampling rate 16BIT data decoding;
◆ Dynamic audio data compression transmission, network bandwidth varies from 8Kbps to 768Kbps, network only occupies small bandwidth.

Dimension（W×H×D）	483×292×52mm
Net weight	3.7kg

NETWORK FIRE LINKAGE TERMINAL -GMA07

FEATURES:

◆ This module is the interface between the networked public broadcast system and the fire prevention center;
◆ When receiving alarm signal sent by fire protection center, the Soundking networked public broadcast system will be activated automatically, and the corresponding work area will be forced into emergency broadcast interpolation state;
◆ Each device has 32 fire triggering channels which can be set by the host, alarm partition of each channel can be arranged arbitrarily;
◆ Each alarm channel includes a path finding fault detection function to automatically check system channel faults;
◆ The same system can have multiple devices connected to the network, and control area can be arbitrarily expanded.

Trigger mode:	short circuit or 5V level
Number of supported channels	32 channels
Networks	dual network 100M/10M adaptive
Power supply	80-250V/50Hz
Dimension（W×H×D）	483×292×52mm
Net weight	3.8kg

SINGLE CHANNEL RACK NETWORK TERMINAL - GMA09

FEATURES:

◆ 10Mbps/100Mbps adaptive Ethernet interface, support multiple network transmission protocols such as TCP/UDP/ARP/HTTP, support cross-switch, router, Internet connections;
◆ Built-in 1 way EMC emergency priority line input, 1 way EMC emergency priority line link output, 1 way network decoding audio line output, can customize the local and network audio priority level;
◆ 1 way EMC short circuit output\1 way 24V level output trigger interface, connected to control volume controller or sequential power supply;
◆ Built-in 5W high-efficiency monitor digital amplifier and monitor speakers;
◆ Embedded HTTP web server, modify device network parameters through PC software or HTTP, support network remote upgrade;
◆ Built-in 10Mbps/100Mbps adaptive Ethernet dual-network interface, built-in switch function, support device hand-in-hand or star connection;
◆ 1 way fire prevention short circuit linkage trigger input interface;
◆ The network real-time audio transmission delay is less than 50mS.

GMA09 SPECIFICATIONS:

Rated power	20W
Frequency response	100Hz-20kHz
Distortion	≤0．1%
Signal to noise ratio	≥75 dB
Network audio program	
Rated output	1V
Frequency response	100Hz-20kHz
Distortion	≤0．5%
Signal to noise ratio	≥75 dB
COM-24V	output: 24V
COM-SC	output: short circuit
Built-in monitoring power	≥5W
Power supply	AC150-250V/50Hz-60Hz/1A
Dimension（W×H×D）	483×292×52mm
Net weight	3kg

VISUALIZED NETWORK PAGING STATION - GMA12

FEATURES:

◆ HD, high resolution 1280*800, 10 inch industrial-grade LCD screen;
◆ With emergency cover protection, one key triggers the broadcast button in the whole region;
◆ Adopt high-grade two-stage capacitive microphone;
◆ Built-in 5 million camera modules, with SONY imported sensor, high-definition star-level lens, support 1080P video recording;
◆ Built-in night supplementary camera module; Support adjustable camera angle;
◆ With 10Mbps/100Mbps adaptive Ethernet dual network RJ45 interface, support TCP/UDP/ARP/HTTP and other network transmission protocols, support cross-switch, router, Internet connection function;
◆ Adopt multi-core A7 ARM architecture CPU, integrated GUI graphical processor;
◆ Using embedded Linux operating system and gorgeous Qt interface;
◆ It has two USB interface and one SD memory card interface.

Local programs can be broadcast on the network terminal partition;
◆ 1 channel HDMI display extension interface; It has 1 wireless microphone input interface, 1 common MIC input interface, 1 auxiliary line input interface, 1 mixed output interface connecting active sound source for expanding mixed sound, 1 monitor output interface;
◆ With two short circuit input trigger interface, two short circuit output trigger interface, road RS485 extension control interface;
◆ Customized partition and grouping function can limit user partition access, different users can display different limited partitions.
◆ It has the function of paging and talking, and the function of hands-free automatic answering and automatic transfer of timeout calls.
◆ Built-in AGC automatic gain control system, built-in microphone speech level detection circuit, with intelligent automatic Page-Off function.
◆ Built-in network player function, can play the network host program library or local USB program source on demand to control the partition broadcast function (that is, has the function of sub-control partition broadcast program), can listen to the program library song content on the host;
◆ One-way line input and one-way line auxiliary output functions facilitate users to expand the use of wireless microphone and local external sound reinforcement.
◆ Built-in 5 million camera modules, with SONY imported sensor, high-definition star-level lens, support 1080P video recording;
◆ Support adjustable camera angle; Line input detection function, can be set to automatically open the user set broadcasting area for paging broadcast, suitable for external wireless simple connection, no need to manually operate the paging button, just need to open the wireless microphone to talk in real time broadcast;
◆ Real-time paging audio delay is less than 50ms;
◆ Monitor function, arbitrarily monitor output sound of the broadcast partition and ambient sound of the playbalck terminal.

SPECIFICATIONS:

MIC input	Input sensitivity	1V	MIC input	Input sensitivity	8mV
	Frequency response	20Hz-20kHz		Frequency response	20Hz-20kHz
	Distortion	≤0.5%		Distortion	≤0.5%
	Signal to noise ratio	≥80dB		Signal to noise ratio	≥65 dB
Line input	Rated output	1V	Play network source	Frequency response	20Hz-20kHz
	Frequency response	20Hz-20kHz		Distortion	≤0.5%
	Distortion	≤0.5%		Signal to noise ratio	≥80dB
	Signal to noise ratio	≥80dB	Camera(pixel)	1080P	
Line output	Rated output 1V		Camera(adjustable angle)	0-60°	
Night-light mode	Fill, full color fill		USB	Maximum support capacity≤64G	
Video coding and decoding module	Format:H264		Built-in amplifier	Output power≥5W	
Trigger port	Input: 2-way short circuit		Extension port	Control RS485	
	Output:2-way short circuit			Display HDMI	
Network interface	Dual network interface RJ45 10Mbps/100Mbps adaptive		Power supply	DC15V	
Working mode	Support dual network port hand in hand switch cascading		Dimension （LxWxH）	370×200×70mm	

VISUALIZED INDOOR HELP INTER-COM TERMINAL- GMA13

FEATURES:

◆ Built-in 5W intercom output speaker and digital amplifier, built-in 2*20W digital amplifier;
◆ Built-in 5 million camera module, SONY imported sensor, using high-definition starlight lens, support 1080P video recording;
◆ Built-in night light filling camera module;
◆ Adopt high-grade aluminum alloy emergency call button;
◆ Built-in double network port, can support hand in hand network cable series connection, can save a lot of construction wire;
◆ Built-in 1 channel emergency short circuit trigger input, can be connected to fire, AI intelligent analysis trigger output, built in 1 channel emergency short circuit output, can be connected to the night alarm light;
◆ Built-in high-grade imported capacitor mic core;
◆ Adopt anti-detachable structure design, built-in anti-detachable trigger switch;
◆ Built-in DSP echo cancellation algorithm module;
◆ Built-in LED clock digital screen, equipment state is very clear;
◆ Can be connected with 2*20W/30W/50W output horn (according to different power to choose the corresponding power supply).

SPECIFICATIONS:

MIC input	Frequency response	100Hz-15kHz	Play network source	Frequency response	20Hz-20kHz
	Distortion	≤0.5%		Distortion	≤0.5%
	Signal to noise ratio	≥70dB		Signal to noise ratio	≥80dB
Built-in monitor amp	Output power ≥5W		Camera(pixel)	500W	
Night mode	Fill, full color fill		Built-in output amp	Output power≥2*20W/≥2*30W/≥2*50W	
Video coding and decoding module	Format:H264		Protection grade	IP56	
Trigger port	Input: 1-way short circuit		Extension port	Control RS485	
	Output:1-way 12V			Display HDMI	
Network interface	Dual network interface RJ45 10Mbps/100Mbps adaptive		Power supply	DC/15V	
Working mode	Support dual network port hand in hand switch cascading		Dimension （LxWxH）	115×165×50mm	

NETWORK PLAYER AMPLIFIER SCREEN - GMA150

FEATURES:

◆ 10Mbps/100Mbps adaptive Ethernet interface, support multiple network transmission protocols such as TCP/UDP/ARP/HTTP, support cross-switch, router, Internet connections;

◆ Built-in 1-way line input, 1-way microphone input, 1-way line output, can customize the priority level of local and network audio, built-in 1-way audio data RS485 expansion bus, with bus expand various kinds of extension equipment;

◆ Local USB playback function;

◆ EMC short circuit/V output trigger interface, connected to control volume controller or sequential power supply;

◆ Built-in 150W\250W\350 W\650W high-efficiency digital constant-voltage amplifier, at rated power the working efficiency of the whole device reaches over 90%;

◆ Embedded HTTP web server, modify device network parameters through PC software or HTTP, support network remote upgrade;

◆ Built-in Bluetooth, MP3, radio program source module with monochrome blue industrial display;

◆ Built-in 10Mbps/100Mbps adaptive Ethernet dual network interface, built-in switch function, support device hand-in-hand or star connection;

◆ 1 way fire prevention short circuit linkage trigger input interface;

◆ Network real-time audio transmission delay is less than 50mS;

◆ Through infrared remote control, select songs on web server for local playback;

◆ Local line input, local microphone input, network audio three-level priority setting;

◆ Built-in mathematic high-efficiency constant-voltage digital amplifier, constant-voltage digital amplifier has fault detection functions for overheating, short circuit, etc.."

SPECIFICATIONS:

Model number	GMA150	GMA250	GMA350	GMA650
Output power	150W	250W	350W	650W
Input sensitivity	1V			
Frequency response	20Hz-20kHz			
Distortion	≤0.1%			
Signal to noise ratio	≥78 dB			
Microphone input				
Output power	10 mV			
Frequency response	20Hz-20kHz			
Distortion	≤0.5%			
Signal to noise ratio	≥73 dB			
Play network audio programs (amplifier output)				
Rated output	1V			
Frequency response	20Hz-20kHz			
Distortion	≤0.5%			
Signal to noise ratio	≥75dB			
100V Constant voltage output				
Net weight	150W	250W	350W	650W
Frequency response	100Hz-15kHz			
Distortion	≤1%			
Signal to noise ratio	≥70dB			
Power supply	AC150-250V/50Hz-60Hz			
Overcurrent, overheat and overvoltage protection	YES			
Dimension （W×H×D)	485×440×90mm			
Net weight	6kg	6.3kg	6.3kg	7.1kg

NETWORK SPRAKER - IP6062

FEATURES:

◆ Networked terminal processor combines with high fidelity speakers. A networked speaker column with an integrated design.

◆ Can work across network segments.

◆ Can be attached anywhere the network reaches.

◆ Supports up to 48kHz sampling rate 16bit digital audio stream decoding.

◆ Built-in high fidelity digital amplifier with low power consumption setting.

◆ Can play background music from the system host, emergency paging, alarm signals, etc.

SPECIFICATIONS:

Speaker unit	5.25"×1, 1"×1
Frequency response	50Hz-20kHz
Sensitivity	90dB±2dB
Output power	30W /8Ω
Supply voltage	DC18V
Maximum sound pressure level	105dB±2dB
Size	280×195×195mm
Net weight	2.6kg

NETWORK SUB-SPRAKER- IP6062F

技术参数：

喇叭单元	5.25 " ×1，1 " ×1
频响	50Hz-20kHz
灵敏度	90dB±2dB
输出功率	30W /8Ω
电源电压	DC18V
最大声压级	105dB±2dB
尺寸	280×195×195mm
净量	2.4kg

NETWORK SPEAKER COLUMN - IP205

FEATURES:

◆ Networked terminal processor combines with high fidelity speakers. A networked speaker column with an integrated design
◆ Can work across network segments
◆ Can be attached anywhere the network reaches.
◆ Supports up to 48kHz sampling rate 16bit digital audio stream decoding
◆ Built-in high fidelity digital amplifier with low power consumption setting.
◆ Can play backaround music from the system host, emergency paging, alarm signals, etc.

SPECIFICATIONS:

Model	IP158	IP258	IP205	IP405
Transducer	Bass: 8"×1 Treble: treble 1"×1	Bass: 8"×2 Treble: treble 1"×1	4"x2, 1"x1	4"x3, 1"x1
Frequency response	80Hz-16kHz	80Hz-16kHz	140Hz-14kHz	140Hz-14kHz
Sensitivity	91dB±2dB	92dB±2dB	93dB±2dB	93dB±2dB
Supply voltage	107dB±2dB	111dB±2dB	109dB±2dB	109dB±2dB
Max SPL	40W	80W	20W	40W
Output power	DC24V	DC24V	DC12V	280×195×195mm
Dimension	230×250×430mm	230×250×665mm	120×160×400mm	610x160x120mm
Net weight	6.3kg	9.7kg	2.5kg	3.6kg

POWER SUPPLY SEQUENCER - GMZ01

FEATURES:

◆ Turn on or off power of 16-way controlled device in sequence;
◆ Automatic control by timer or manual control
◆ Total capacity of socket is 4.5KVA;

SPECIFICATIONS:

Power outlet output total capacity	4.5kVA，20A，16channels
Maximum output per socket	AC220V，10A
Timer signal control	AC 220 volts, 0.01A
Action interval	0.4 seconds - 0.5 seconds
Protection	AC fuse
Power consumption	AC220-240V/50-60Hz/20A
Dimension（W×H×D）	484×365×88mm
Net weight	6.3kg

PRE-AMPLIFIER- GMG80

FEATURES:

◆ Microcomputer control, full touch operation.
◆ Modular circuit design ensures reliable product consistency.
◆ Channel signal isolation measures to minimize crosstalk between channels and machine background noise
◆ Ten-way inputs (5-way mic input, 3-way line input, 2-way emergency input)
◆ Each input/output signal has LED indicator,the working status is very clear.
◆ Independent adjustment of each input channel volume

◆ Independent adjustment of treble and bass
◆ Three-level priority design: MIC1 is the highest priority, emergency audio signal (EMC) is the second level, MIC2, 3, 4, 5 and line (AUX1, AUX2, AUX3) are the third level.
◆ No volume adjustment for emergency audio signal input, it will be automatic - 30dB.
◆ High-strength 1.5MM thickened body ensures that product will not be deformed due to poor transportation environment.

SPECIFICATIONS:

Input	Mic 1, 2, 3, 4, 5: 600Ω, 2.5mV, unbalanced		Tonality	Bass : ±10dB（100Hz）
	Aux 1, 2, 3 : 10kΩ, 250mV, unbalanced			Treble : ±10dB（10kHz）
Output	0dBV		Protection	ACfuse
Frequency response	Mic : 100Hz-15kHz（±3dB）		Power supply	AC 220-240V/50-60Hz
	Line : 20Hz-18kHz(±3dB)		Dimension（W×H×D）	484×365×88mm
Signal to noise ratio	Mic input : 80dB		Net weight	6.2kg
	Aux input : 90dB			

CD/MP3 PLAYER - GMZ03

FEATURES:

◆ Play automatically when powered on
◆ Automatic broadcast control, full digital servo
◆ Supports multiple audio formats such as DVD, VCD, CD, MP3, SVCD and DVCD
◆ Built-in USB disk interface
◆ High-strength 1.5MM thickened body ensures that product will not be deformed due to poor transportation environment.

SPECIFICATIONS:

Frequency response	20Hz-20kHz(±3dB)		Output level	0dBV
Signal to noise ratio	90dB		Power supply	AC220-240V/50-60Hz
Dynamic range	90dB		Dimension（W×H×D）	484×365×88mm
Harmonic distortion	0.005%		Net weigh	6.9kg
Trembling	under measurable limit			

NUMERICAL CONTROL TUNER- GMZ04

FEATURES:

◆ Microcomputer control, digital tuning system.
◆ Full touch operation, VFD display.
◆ Professional high-fidelity stereo digital quartz phase-locked loop tuning system for ultra-high sensitivity reception.
◆ Manual/automatic/frequency direct input selection and other tuning methods, easy to operatesensitivity reception.
◆ Automatic search and memory function, AM/FM can store 20 stations each.
◆ Power-off memory function, audio signal level indication.
◆ Controlled by wireless remote control and timer.
◆ High-strength 1.5MM thickened body ensures that product will not be deformed due to poor transportation environment.

SPECIFICATIONS:

Receiving range	FM 87.0MHz-108.0MHz		Mid frequency	FM 10.7MHz
	AM 522kHz-1620kHz			AM 450kHz
Sensitivity	FM 26dBμ		Output level	0dBV
	AM 52dBμ		Protection	AC fuse
Signal to noise ratio	FM mono76dB，stereo 70dB		Power supply	AC220-240V/50-60Hz
	AM 40dB		Dimension（W×H×D）	480×378×88mm
Tuning frequency step	FM 50kHz		Net weight	6.9kg
	AM 9kHz			

CEILING-MOUNTED SPEAKER

GMT01

FEATURES:

◆ Working voltage 70/100V, power 1.5-6W (multiple matching terminals), suitable for different occasions;

◆ Powerful movable clip design, easy to install;

Adopts high-quality engineering plastic injection molding durable, no deformation, no discoloration;

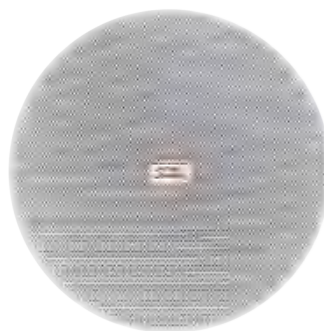◆ Speaker suspension edge damping treatment, long service life, high sensitivity (93±2dB), clear and bright sound.

GMT03

FEATURES:

◆ Adopts high-quality engineering plastic injection molding, and equipped with powerful activity clip;

◆ Working voltage 70/100V, suitable for different public broadcast.

CEILING-MOUNTED SPEAKER

GMT04

FEATURES:

◆ Super reproduction of speech and music;

◆ Easy to install and adapt to ceilings of different thicknesses;

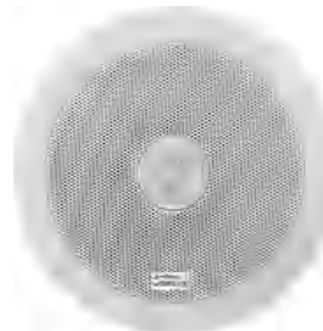◆ Fashionable slim-edge big flat circular mesh design;

◆ UV grade flame retardant

GMT05

FEATURES:

◆ External control "CD player"

◆ Working voltage 70/100V, rated power 20W；

◆ Maximum sound pressure level 101±2dB, effective frequency range 60Hz-18kHz;

◆ Adopts high-quality engineering plastic injection molding, durable, no deformation, no discoloration;

◆ Coaxial speaker unit, treble can be rotated for around 15°;

◆ Long life, 88±2dB sensitivity, with clear and bright sound. It can connect with tuner, signal matrix, power matrix, etc.

SPECIFICATIONS:

Model	GMT01	GMT02	GMT03
Speaker unit	6.5"×1	4.5"*1	6.5"*1
Rated power	3W	3W	3W
Max power	6W	6W	6W
Rated input	70/100V	70/100V	70/100V
Sensitivity(1m,1W)	93dB	91±2dB	92±2dB
Max SPL (1m)	98dB	96±2dB	100±2dB
Frequency response	140Hz-18kHz	75Hz-20kHz	(140~16k)Hz
Mounting hole size	ø165-ø170mm	ø154-ø164mm	ø165-ø170mm
Dimension	70×ø186mm	80×ø180mm	79×ø190mm
Net weight	0.7kg	0.8kg	0.7kg

SPECIFICATIONS:

Model	GMT04	GMT05	GMT06
Speaker unit	6.5"×1	5.5"×1，1"×1	8"×1，1"×1
Rated power	5W	20W	30W
Max power	10W	40W	60W
Rated input	70/100V	70/100V	70/100V
Sensitivity(1m,1W)	90dB	88±2dB	92±2dB
Max SPL (1m)	101dB	101±2dB	107±2dB
Frequency response	110-15kHz	60-18kHz	50-20kHz
Mounting hole size	ø168-ø172mm	ø170-ø185mm	ø242-ø245mm
Dimension	105×ø191mm	85×ø205mm	130×ø273mm
Net weight	0.9kg	1.3kg	3.2kg

WALL-MOUNTED SPEAKER - GMB05

FEATURES:

◆ Working voltage 70/100V, power 1.5-10W (multiple matching terminals), adapt to different occasions;

◆ Maximum sound pressure level 100±2dB, effective frequency range 160Hz-18kHz;

◆ It weighs 1.5kg and has its own hanging hole for easy installation;

◆ Adopts high-quality engineering plastic injection molding, durable, no deformation, no discoloration;

◆ Speaker suspension edge damping treatment, long service life, high sensitivity (up to 92+2dB), with clear sound."

SPECIFICATIONS:

Model	GMB05
Speaker unit	6.5"×1，2.5"×1
Rated power	6W
Max power	10W
Rated input	70/100V
Sensitivity(1m,1W)	92dB±2dB
Max SPL (1m)	100dB±2dB
Frequency response	160-18kHz
Dimension	273×183×115mm
Net weight	1.5kg

WATERPROOF COLUMN

GMY04

GMY02

FEATURES:

◆ The product is waterproof and can be used indoors and outdoors;

◆ Adopts aluminum mesh which will not rust;

◆ High quality, high sensitivity, wide dynamic range speaker, 2-way structure

SPECIFICATIONS:

Model	GMY02	GMY04
Speaker unit	4 " ×1，1 " ×1	4"×3,2.5"×1
Rated power	20W	30W
Rated input	100V	100V
Sensitivity(1m,1W)	89±2dB	93±2dB
Max SPL (1m)	102±2dB	109±2dB
Frequency response range	140Hz-14kHz	140Hz-14kHz
Dimension	160×120×397mm	160×120×600mm
Net weight	2.8kg	3.9kg

WATERPROOF COLUMN

GMY160

GMY120

GMY080

GMY040

VOLUME CONTROLLER

FEATURES:

◆ Two-wire system, three-wire system and four-wire system are applicable.

◆ It can be extended to 30 watts, 60 watts, 120 watts and 200 watts.

SPECIFICATIONS:

Model	GMK6F	GMK30F	GMK60F	GMK120F	GMK200F
Power	6W	30W	60W	120W	200
Extender OPTION	30W/60W/ 120W/200W	30W/60W/ 120W/200W	30W/60W/ 120W/200W	30W/60W/ 120W/200W	30W/60W/ 120W/200W
Source selection					
With interpolation input					
Panel color	white	white	white	white	white
Wire system	2,3,4	2,3,4	2,3,4	2,3,4	2,3,4
Dimension (LxWxH)	85×85×60mm	85×85×60mm	85×85×60mm	85×85×60mm	85×85×60mm

FEATURES:

◆ The product is waterproof and can be used indoors and outdoors;

◆ Adopts aluminum mesh which will not rust;

◆ High quality, high sensitivity, wide dynamic range speaker, 2-way structure

SPECIFICATIONS:

Model	GMY040	GMY080	GMY120	GMY160
Speaker unit	8"×1	8"×2	8"×3	8"×4
	Rated power	35 core horn treble×1	35 core horn treble×1	35 core horn treble×2
Rated input	40W	80W	120W	160W (Max power≥240W)
Sensitivity(1m,1W)	91dB	92dB	93dB	94dB
Max SPL (1m)	107dB	111dB	113dB±2dB	116dB
Frequency response range	80Hz-16kHz	80Hz-16kHz	80Hz-16kHz	80Hz-16kHz
Dimension	247×225×435mm	247×225×673mm	247×225×910mm	247×225×1325mm
Net weight	6.6kg	10kg	13kg	18.6kg