

# Column speaker

LSM active series with DSP

CX3 constant resistance/pressure series

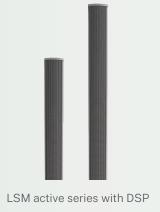
# BACKGROUND

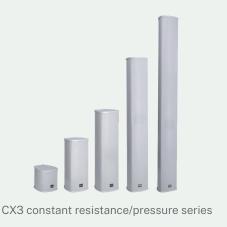
In recent years, because of its slender and compact shape, column speakers can be perfectly integrated with the building environment to create a beautiful and comfortable listening space. Moreover, because of the characteristics of line source, the column covers more evenly than traditional point source speakers, has wider horizontal and narrow vertical directivity, and has better language clarity and higher amplification gain. It is more suitable for some special occasions, such as conference rooms, churches and so on.

At present, the domestic column speakers are still passive, and the configuration is more complicated. When using it, it needs to be equipped with related equipment such as mixing console, processor, amplifier, etc. It also needs a professional tuner to carry out careful system debugging, which is very inconvenient to use.

The newly developed series of sound columns by Soundking has built-in professional digital audio processor, amplifier and other devices, and the performance parameters have been accurately debugged according to the actual use scenario. Users only need simple connection to use them normally. This greatly improves the installation and debugging efficiency of the audio system engineering contractors, and also makes the end user easier to operate and maintain.

### Column speaker series





# PRODUCT FAMILY

LSM active series with DSP

CX3 constantresistance/ pressure series

240W Active Column Speaker with DSP (LSM135)240W Active Column Speaker with DSP (LSM163)

CX3 constant resistance column/ waterproof column speaker(3" speaker)

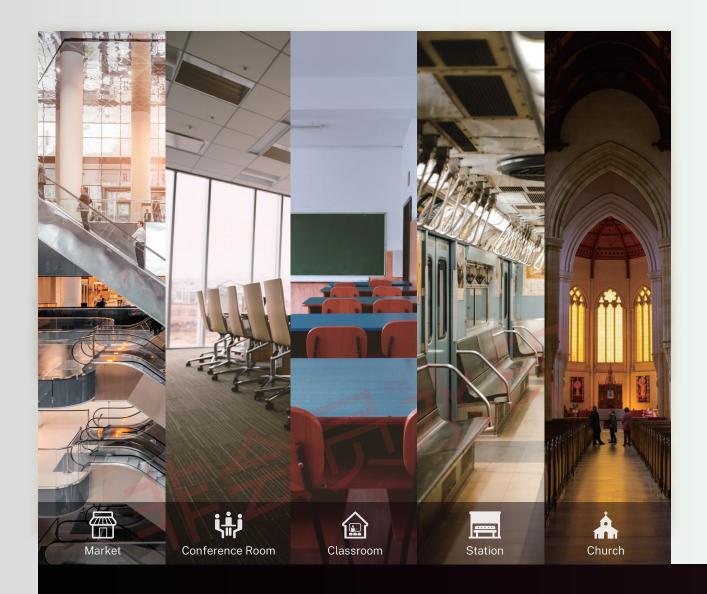
CX3 constant pressure column/ waterproof column speaker(3" speaker)



# TECHNOLOGICAL INNOVATION

- Integrated metal housing, built-in high quality neodymium magnetic
   full-range speaker; Professional digital DSP automatically match audio
   parameters
- Wide frequency response, high definition, wide horizontal coverage angle, long radiation distance, good bass effect, good speech clarity, stable performance
- The patented compact cabinet blends seamlessly in any architecturally sensitive environments
- Slim and compact structural, can blend perfectly with the environment. Create perfect sound amplification
- Lighter weight and smaller size than professional speakers
- With professional wall mounting bracket, adjustable horizontally or vertically at multiple angles
- Full range of products: multi-style, multi-size, multi-color options
- CX3 series waterproof cabinet structure, dust and water proof up to IP54





## **APPLICATION**

Suitable for shopping malls, conference rooms, classrooms, stations, churches and other occasions with high sound quality requirements



### LSM active series with DSP

LSM135/LSM163

### 640W active column speaker (DSP)

### Introduction

The new LSM series active speaker developed by Soundking has built-in professional digital DSP, power amplifier and other technologies, replacing the drawbacks of the traditional speaker connected with a variety of complex devices. Performance parameters have been set to various modes based on actual usage scenarios, and users only need a simple connection to work properly.

This LSM active (DSP) speaker is tailored for LED displays and provides the best solution for all LED screens. This product is suitable for large, medium and small rooms, churches, classrooms, stations, exhibition halls and other occasions, especially for all LED displays to provide the best audio system products. It is a medium and high grade engineering sound specially designed for high sound quality, good bass effect, good voice clarity and small installation space.

### **Features**

- Active speaker contains speaker DSP module necessary for sound amplification system
- Supports automatic matching of audio parameters under presets
- High speech articulation and large dynamic range
- Digital amplifier with high power, low distortion and excellent sound quality
- Switching power design, light weight, stable performance, allows 100V~240V wide power input
- With professional fixing mount



Rear panel

Combined with processor and active amplifier module

Model	LSM135/LSM163	Туре	Active 2-way line array speaker	
Frequency range(-10dB)	65Hz-20kHz	Input voltage	100-240V	
Amp power	640W/8Ω	Dimension (WxHxD)	118*1835*128mm/ 118*2172*128mm	
Max. SPL(@1m)	121dB(peak)	Net weight	12.8kg/14.3kg	
35mm mount hole	No	Coverage (HxV)	120°x30°	
LF transducer	6x3" Nd magnet full-range/φ25mm vc/ 30W/ 8Ω			
HF transducer	1x1" HF compression driver/φ25mm vc/ 10W/ 8Ω			
Connection	1x XLR balanced signal input, 1x 3pin phoenix balanced input, 1x RS485			



### **Application Topology Diagram**

LSM series active speaker has built-in professional digital DSP, power amplifier and other technologies, replacing the drawbacks of the traditional speaker connected with a variety of complex devices. Performance parameters have been set to various modes based on actual usage scenarios, and users only need a simple connection to work properly. No careful system debugging by professional tuners is required, which makes the operation easier and maintenance easier.





# CX3 constant resistance/ pressure series

### Introduction

CX series all-weather line array speaker system is composed of several high-quality 3" neodymium magnetic full-range speakers arranged tightly. It features wide frequency response, high definition, wide horizontal coverage and long radiation distance. Compared to professional speakers with the same maximum sound pressure level, they are smaller in size, lighter in weight and easier to carry.

### Technological innovation

- Aluminum alloy cabinet, with its slim and compact shape, can blend perfectly with the building environment to create a beautiful and comfortable listening space
- Fully waterproof structure, dustproof, waterproof grade: IP54
- Dedicated wall mounts are available for quick wall mounting. Horizontal and vertical angles are adjustable
- The constant-voltage model has a built-in high-performance audio transformer with twice the power of the same speaker on the market. It is used with a dedicated constant-voltage amplifier and is suitable for long-distance transmission applications

### Feature

- High strength aluminum alloy housing, complete set of mold processing, easy assembly and convenient operation
- 4/8 Plug-in sockets, 2 internal parallel connections, special PG waterproof socket signal output
- 3 inch full-range speaker, fiberglass pelvic sound film, NdFeB magnetic circuit, high sensitivity, light weight
- Two configurations, constant voltage and constant resistance, with a constant voltage of 100V and three power outputs: 100%, 50%, 25%
- With professional wall mounting bracket, adjustable horizontally or vertically at multiple angles
- Two cabinet colors are available for user to choose from: black and white

### Accessory

► (CX301/CX302)



► (CX304/CX308/CX312)



Vertical angle can be adjusted 0°/10°/20°/30°

Horizontal angle can be adjusted  $65^\circ$ 



# CX3 series

(constant resistance)

### Full-speaker system

- Aluminum alloy cabinet, equipped with full-range speakers, high sensitivity
- The speaker not only has dustproof function, but also in the waterproof series, the waterproof level can reach IP54, and it is equipped with a dedicated waterproof signal output socket
- Dedicated wall mount, easy to install, can be adjusted horizontally and vertically according to the needs of the scene to achieve the best sound reinforcement effect
- The constant resistance model features high output power and high sound pressure level, suitable for single speaker or multiple speakers in series and parallel combination application







rear panel



waterproof cover

Model	CX301R   CX301RF	CX302R   CX302RF	CX304R   CX304RF	CX308R   CX308RF	CX312R   CX312RF
Speaker	3" speakerX1	3" speakerX2	3" speakerX4	3" speakerX8	3" speakerX12
Frequency response(-10dB)	130Hz-20kHz	130Hz-20kHz	130Hz-20kHz	130Hz-20kHz	130Hz-20kHz
Rated power	30W(constant)/120W(peak)	60W(constant)/240W(peak)	120W(constant)/480W(peak)	240W(constant)/960W(peak)	360W(constant)/1440W(peak)
Max. SPL	108dB	114dB	120dB	126dB	130dB
Coverage	100°×100°	100°x40°	100°x30°	100°x20°	100°x20°
Transducer	ф20mm VC	ф20mm VC	ф20mm VC	ф20mm VC	ф20mm VC
Sensitivity	87dB	90dB	93dB	96dB	98dB
Nominal impedance	8Ω	28	8Ω	8Ω	12Ω
Connector	1XPHOENIX(4P)	1XPHOENIX(4P)	1XPHOENIX(8P)	1XPHOENIX(8P)	1XPHOENIX(8P)
Dimension (WxHxD)	118x122x121mm	118x190x121mm	118x400x121mm	118x682x121mm	118x1006x121mm
Net weight/gross weight	1.1kg   12.2kg	1.6kg   7.3kg	2.9kg   5kg	4.9kg   8kg	6.9kg   11kg
Package size (WxHxD)	470x470x335mm	470x425x405mm	220x220x585mm	220x220x870mm	220x220x1190mm
Packing quantity	4 PCS	2 PCS	1 PCS	1 PCS	1 PCS
Mount hole	No	No	No	No	No



### **Application Topology Diagram**

In order to achieve better sound quality in different environments, we can provide customized cost-effective column speaker solutions. It solves the complex process of cumbersome processor, amplifier, column speaker allocation and professional tuner debugging. Professional audio-visual effects can be easily enjoyed by simply plugging in the power supply.



### AP series digital audio processor

AP Series Processors are high-performance, cost-effective processors designed for the middle and low-end areas. They have clear software interface modules, simple operation, multiple user presets, and can be stored and invoked separately for the whole state and each preset. It has password protection function to make the device safer. Remote control via RS232 or RS485 facilitates customer intelligent control.



### 32-bit DSP chip processing, 48kHz sampling rate, 24 bit AD/DA conversion.

- The input processing section contains processing functions such as high-cut, low-cut, 8 PEQ, gain, mute, phase, delay, and continuous adjustment.
- The output processing section contains processing units such as crossover, 9 parametric equalization, gain, mute, compression/clipper, phase, delay, and continuous adjustment.
- The PEQ gain, bandwidth and frequency of all channels can be continuously adjusted, and the types can be selected: parametric equalization, low-shelf filtering, high-shelf filtering, low-cut filtering, high-cut filtering.
- Matrix assignment is free between all inputs and outputs, and the name of each input and output channel can be changed.
- For all high-cut and low-cut filters, the type of divider can be selected: Butterworth, Linkwitz-Riley, Bessel, and slopes option from -6dB/Oct to -48dB/Oct.
- The threshold, ratio, start-up time and recovery time of the compressor/limiter in the output channel can be continuously adjusted.
- Delay modules for all input and output channels have a delay time of up to 680ms.
- Parameter settings between any channels can be freely copied, and any channel can be continuously adjusted.
- Built-in test signal generator, pink noise, white noise and 20Hz-20kHz sine wave can be adjusted, signal amplitude can be adjusted.
- Front panel with input and output level indicator, USB control port, back panel 232&485 control port, one-touch connection makes user's operation easier and faster. With 30 user presets, the entire state and each preset can be stored and invoked separately. The ID setting function can control 250 machines in cascade, and also has password protection function to make the device safer.

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Model	AP24	AP36	AP48	AP88		
Input	2	3	4	8		
output	4	6	8	8		
Product size	482*205*44mm	482*205*44mm	482*205*44mm	482*205*44mm		
Net /Gross weight	1.8kg/2.63kg	2kg/2.8kg	2.63kg/3.5kg	2.8kg/3.7kg		
Packing quantity	1PCS	1PCS	1PCS	1PCS		
Specification		20Hz~20	)kHz.+			
Frequency response		-0.3dBu				
Dynamic range		>110dBu				
Distortion		<0.01%at 1kHz(0dBu)/ >70dBu20Hz-20kHz				
Crosstalk	>75dBu 1KHz					
CMRR	Balanced XLR connection					
Input style	+15dBu/≥8kΩ					
Max.input level/Impedan	ce	e Balanced XLR connection				
Output style	+15dBu/≤50 Ω					
Max.output level/Impeda	nce	ce 24 bit sigma-delta A/D、D/A conversion				
Digital processing part		32 bit Dsp.48kHz sampling rate				
Display	LCD shows current parameters and all settings					
Power supply	AC~95V-250V50/60Hz					

# CX3 series

(constant pressure)

### Full-speaker system

- Aluminum alloy cabinet, equipped with full-range speakers, high sensitivity
- The speaker not only has dustproof function, but also in the waterproof series, the waterproof level can reach IP54, and it is equipped with a dedicated waterproof signal output socket
- Dedicated wall mount, easy to install, can be adjusted horizontally and vertically according to the needs of the scene to achieve the best sound reinforcement effect
- Constant pressure with built-in high-performance audio transformer, twice the power of the same speaker on the market, with a dedicated constant-pressure power amplifier for long-distance transmission applications



rear panel



01RF| CX302RF) (CX304RF | CX308RF | CX312R



waterproof cover

Model	CX301V   CX301VF	CX302V   CX302VF	CX304V   CX304VF	CX308V   CX308VF	CX312V   CX312VF
Speaker	3" speakerX1	3" speakerX2	3" speakerX4	3" speakerX8	3" speakerX12
Frequency response(-10dB)	130Hz-20kHz	130Hz-20kHz	130Hz-20kHz	130Hz-20kHz	130Hz-20kHz
Rated power	30W	60W	120W	240W	360W
Max. SPL	108dB	114dB	120dB	126dB	130dB
Coverage	100°x100°	100°x40°	100°x30°	100°x20°	100°x20°
Transducer	ф20mm VC				
Sensitivity	87dB	90dB	93dB	96dB	98dB
Audio transformer power	20W   10W   5W	20W   10W   5W	120W   60W   30W	120W   60W   30W	120W   60W   30W
Connector	1XPHOENIX(4P)	1XPHOENIX(4P)	1XPHOENIX(8P)	1XPHOENIX(8P)	1XPHOENIX(8P)
Dimension (WxHxD)	118x122x121mm	118x190x121mm	118x400x121mm	118x682x121mm	118x1006x121mm
Net weight/gross weight	1.1kg   12.2kg	1.6kg   7.3kg	2.9kg   5kg	4.9kg   8kg	6.9kg   11kg
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Packing quantity	4 PCS	2 PCS	1 PCS	1 PCS	1 PCS
Mount hole	No	No	No	No	No



### **Application Topology Diagram**

In order to achieve better sound quality in different environments, we can provide customized cost-effective column speaker solutions. It solves the complex process of cumbersome processor, amplifier, column speaker allocation and professional tuner debugging. Professional audio-visual effects can be easily enjoyed by simply plugging in the power supply.



### 4-way post PA amplifier

- Constant resistance and constant-voltage are provided to make this machine work as a PA system or with professional speakers.
- The professional floating-ground amplifier technology enables the local machine to respond faster and is suitable for all types of speakers;
- It has perfect protection circuits such as over voltage, over current, short circuit, midpoint drift, etc.
- Multi-level adjustment of the cooling fan, high-speed, mute to ensure good heat dissipation;
- Excellent noise control;
- The high strength 2U standard rack design is suitable for desktop and cabinet use;
- Exquisite black design.

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Model	GMS70	GMS150	GMS250	GMS350
Rated power (17VRms/4Ω)	4×70W	4x150W	4x250W	4x350W
Net /Gross weight	16kg/18.5kg	18kg/20.5kg	20kg/22.5kg	22kg/24.5kg
Frequency response		100	)Hz-20KHz±3dB	
Distortion	<0.2%(LINE input<2%)/1KHz/10V fixed resistance output>			
LINE IN sensitivity	750mV±15%/1KHz/47KΩ			
SNR	≥90dB (A weight)			
Power supply			220V/50Hz	
Max. consumption			509W	
Dimension (WxHxD)		48	30*495*90mm	
Packing quantity			1PCS	



### High-power post PA amplifier

- It has RCA and XLR sockets, which are ideal for large, medium and small public places.
- With 100V, 70V constant voltage output and  $4\sim16\Omega$  constant resistance output, this machine can be used both as a PA system and with professional speakers.
- The output volume can be adjusted;
- LED level display: can display output signal strength, distortion status, protect acousto-optic prompt, easy to observe the working condition of the machine;
- It has perfect functions of over voltage, over current, short circuit, midpoint drift and over temperature protection;
- Excellent noise control, comparable to professional amplifiers;
- Unique auto-compression function of input signal, the output signal will never be distorted, maximum protection of the speaker will not be caused by too large input signal or human error operation;
- Variable speed fan, the speed changes with temperature, efficient and energy-saving, mute to ensure good heat dissipation;
- Professional modular circuit design to ensure the reliability and consistency of products;
- High strength 1.5MM thick enclosure to ensure that the product will not be deformed due to the harsh environment or transportation.

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Model	GMG800	GMG1000W	GMG1500W	GMG2000W	
Output power	800W	1000W	1500W	2000W	
Constant resistant output	60VRMS/4Ω	63VRMS/4Ω	77VRMS/4Ω	89VRMS/4Ω	
Max. consumption	1080W	1800W	2700W	3600W	
Dimension (WxHxD)	484*330*88mm	484*520*132mm	484*520*132mm	484*520*132mm	
Net /Gross weight	14kg/15.7kg	27.8kg/31.6kg	28.6kg/32.4kg	30.9kg/34.7kg	
Constant voltage output	70V/100V				
Frequency response	100Hz-18kHz(±3dB)				
Distortion	<2%(LINE input<2%) / 1kHz/10V Constant output				
LINE IN sensitivity	750mv±15%/1kHz/47KΩ				
SNR	≥80dB(A weighted)				
Power supply	AC220V/50Hz				
Packing quantity	1PCS				



### Soundking Electroacoustic Co., Ltd

