ENEWAVE®
www.enewave.com

Professional
Loudspeaker

We build successful digital stories.

We will help you grow your idea into a profitable business.

INSTALLATION

X Series

The harmony of sight and hearing is simplicity

The integration of the appearance of the fixed-installed speakers and the architectural environment has always been the pursuit of ENEWAVE. The newly launched X-Pad series speakers are designed with thin cabinets and the overall thickness is only 7CM. It can be integrated with the architectural environment, without the sense of violation of traditional wall-mounted speakers. The first interchangeable shell design, users can choose a variety of different wood and wood grain shells, and it is easier to match with the environmental decoration. SDCT (Direct Audio Coupling Technology) array speaker technology provides more uniform sound coverage and less transmission attenuation. It can also meet the different needs of large and small venues through array expansion.

LCA Series

Line source Coulumn Array

The Lark is a small bird with an extremely loud voice. The ENEWAVE Lark System has a slender and compact body, but can emit a sound pressure that is not commensurate with its body volume.
Lark System using the latest technology can be used for music sound reinforcement, conference sound reinforcement, bar music playback, multimedia interaction, theme parks and other occasions.
Small in size, but faster than the falcon, and has a beautiful and varied singing voice. ENEWAVE's Shrike array column also has powerful output sound pressure and clear and transparent sound quality.

INSTALLATION

AS Series

Active System

Simplifying complexity has always been our pursuit, AS series is specially designed to simplify and perfect LCA series and VS series. The AS series active system can easily expand the low frequency of the LCA series and VS series speakers to meet the needs of more application scenarios. At the same time, AS has built-in powerful DSP processing and efficient digital power amplifier, so that LCA series and VS series speakers can be immediately upgraded to active systems.

CS Series

Commercial Installation Series

CS series speakers are specially designed for public installation projects, and are widely used in background music systems, public broadcasting, language sound reinforcement, environmental sound effects and other systems. When designing such speakers, it is necessary to focus on the sound quality, appearance, installation method, and suitability of the use environment.

X Series

Harmony of sight and hearing

It's simple


X-Pad
slim & fit
X-Sub
light & power

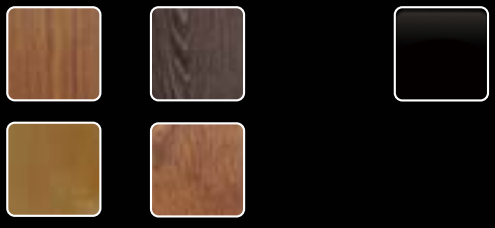
Product overview

X-Pad Ultra-thin flat panel array speakers

The integration of the appearance of the fixed-installed speakers and the architectural environment has always been the pursuit of ENEWAVE. The newly launched X-Pad series speakers are designed with thin cabinets and the overall thickness is only 6.5CM. The architectural environment is integrated, without the sense of violation of traditional wall-mounted speakers.
The first interchangeable shell design, users can choose a variety of different wood and wood grain shells, and it is easier to match with the environmental decoration.
SDCT (Direct Audio Coupling Technology) array speaker technology provides more uniform sound coverage and less transmission attenuation. It can also meet the different needs of large and small venues through array expansion.

Slim profile translates the sound of nature

Slim cabinet design, simple lines, with a variety of solid wood materials, seamless integration with various interior decoration styles. Provide 4 kinds of solid wood materials and a piano paint shell, 4 kinds of different color grilles for customers to choose.



Refined technology for perfect sound

Overcome factors such as insufficient volume of the flat cabinet, and obtain perfect high-fidelity sound through targeted design and cabinet structure design. The use of SDCT array technology can also expand the size of the system by stacking building blocks according to the size of the room.

X-Sub

Surging power comes from precise control

Built-in mixing and adjustable electronic crossover control circuit, it still maintains extremely low distortion at high power output.

Powerful and shocking

12" subwoofer, 500W high-power amplifier, push the cinema shock effect to the peak.

Application

The combination of X-Pad and X-Sub can be widely used in cinemas, homes, conference rooms, auditoriums, hotels, multimedia displays and other occasions.

X-Pad

Physical parameter	
Frequency response	90Hz-20kHz(+/-3dB) 70Hz-21kHz(+/-10dB)
Power capacity	120W(continue), 280W(program), 560W(peak)
Nominal impedance	4Ω /16Ω selectable via switch
Sensitivity	91dB(1 m /1W)
Max. SPL	118dB(Peak)
Nominal coverage	100 ° X 30 °
Component	4 X 3.5" Neodymium , glass fiber basin unit
Cabinet principle	Front bass reflex array
Surface	Inner cabinet in black matt, wall mounted outer cabinet in black walnut, Thai teak, sapele, maple matt wood and black
Installation method	Wall mount or embedded
Dimension	440mm X 265mm X 65mm (H X W X D，w/o front cover)
Weight	4.25kg
Front cover	Wooden frame nylon mesh, available in black, brown and white
Dimension of gtill	440mm X 255mm X 15mm (H X W X D)

X-Sub

Physical parameter	
Frequency response	35Hz-250Hz(+/-3dB) 27Hz-250kHz(+/-10dB), through electric control
Max. SPL	128dB
Nominal coverage	N/A
Amplifier power	800W,4Ω loading
Control	24dB/Oct LPF ,30Hz-120Hz linear adjustable ,phase ,volume
Input impedance	33 KΩ
S/N Ration	> 105dB
Input jack	Pare of RCA umbalance
Power supply	220V,50Hz,10A
Component	1 X 12" (75mm V.C.) Ferrite bass driver， Paper-coated diaphragm，Aluminum alloy frame
Cabinet principle	Bass reflex active sub-woofer
Cabinet materil	MDF cabinet, black walnut, oak wood grain matt open lacquer
Dimension	470mm X 399mm X 450mm(H X W X D)
Weight	31kg


ENEWAVE ELECTRONICS LLC
ENEWAVE
FULL RAGE SPEAKER
MADE IN CHINA

series
X-Pad Pro

ENEWAVE's latest X-Pad Pro speaker, designed by internationally renowned industrial designer David Wathen, is specially designed for high-end luxury occasions. Extraordinary.

It is different because of the details——

75 mm thin aluminum alloy cabinet design, mounted on the wall, perfectly integrated with the environment.

Aluminum alloy anode electrophoresis treatment is environmentally friendly process, with uniform film thickness and strong oxidation resistance.

The cross-grain microfiber leather surface not only has excellent cold resistance, breathability, and aging resistance, but also has clear and delicate lines and strong texture.

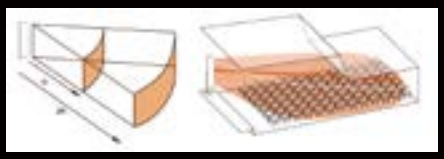
The golden ratio of cabinet finish and grille gives you the most harmonious and comfortable aesthetic feeling.

X-Bass

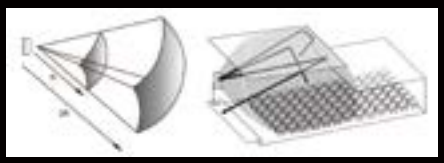
X-Bass is suitable for conference rooms andlecture halls. It can be used as a low-frequencysupplement for X-Pad and X-Pad Pro to enhancethe expressive power of low-frequency.

1 Using SDCT array technology, the corresponding sound pressure output is obtained through simple superposition, which can meet the application of different space sizes.

Line source



Point source



- Slim flat-panel sub-woofer
- Small, lightweight, flat design
- 11" ferrite plate unit
- Strong output capability
- The unit adopts automotive process manufacturing technology
- Excellent low frequency response
- Anodized electrophoresis treatment anti-oxidation aluminum alloy cabinet
- Minimalist integrated mounting system

2 Pointing angle deflection design, perfect for different scenarios.

45˚angle deflection design for wall mounting.

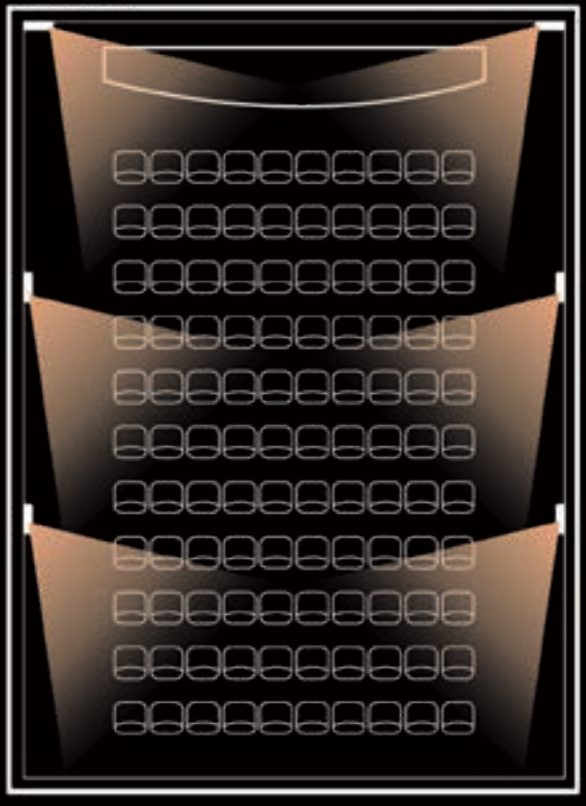
3 High-efficiency neodymium magnetic glass fiber basin unit, short-circuit ring design, greatly reducing distortion.

4 Simple wall-mounted installation, highly integrated with the environment.

Application

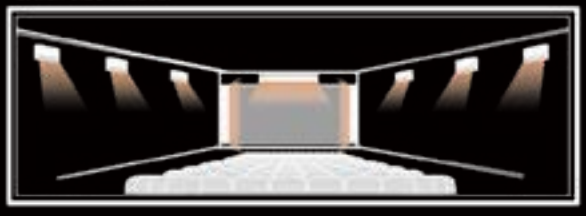
X-Pad Pro is mainly used in conference room, smallsize theater, home, auditorium, hotel, LED/ LCD digital signage and other occasions.

Auditorium



Conference Room

Small size theater



Stage Monitor

X-Pad Pro

Specification

Typ	Panel Linear array Speaker
Frequency response	125Hz-18kHz（+/-3dB）
Power capacity	85Hz-20kHz（+/-10dB）
Impedance	120 Watts
Sensitivity	
MAX SPL	16 Ohms
Nominal coverage	91dB（1M ／ 1W）
	118dB（Peak）
Driver axial rotation angle	110° x30°
	45°
Component	
	2.75 inch * 4 neodymium full range driver
Cabinet	Aluminum alloy
Surface	Electroplating / Oxidation / Cross grain microfiber leather veneer decoration
Installation method	Wall mount
Dimension	440mm X 265mm X 75mm(HxWxD)
Weight	3.8 kg

X-Bass

Specification

Frequency response	40Hz-400Hz（+/-3dB）
	35Hz-1kHz（+/-10dB）
Power capacity	200~400W
Impedance	8hms
Sensitivity	89dB(1 m ／ 1 W)
Max. SPL	112dB(PEAK)
Nominal coverage	N/A
Axis offset of dispersion	N/A
Component	1 X 11" (Capton Coil) Ferrite driver，
Cabinet	MDF Cabinet
Surface	Spade/Oak solid wood veneer
Installation method	Wall mount/ Floor
Dimension	320mmX 550mm X 132mm(HxWxD)
Weight	10kg

Products Introduction

X-Cube

X-Cube is a coaxial point source full-range speaker cabinet that inherits the design characteristics of the X family included exquisite, beautiful, high-power output, and perfect sound quality. It consists of a 5.5" woofer coupled with a 1.4" tweeter. It is a brand new milestone for ENEWAVE in the development and application of the unit. X-Cube can perform full-band response and has a very high degree of environmental integration, small size and simple and generous appearance which fully fits the contemporary aesthetic point of view.

X-Cube

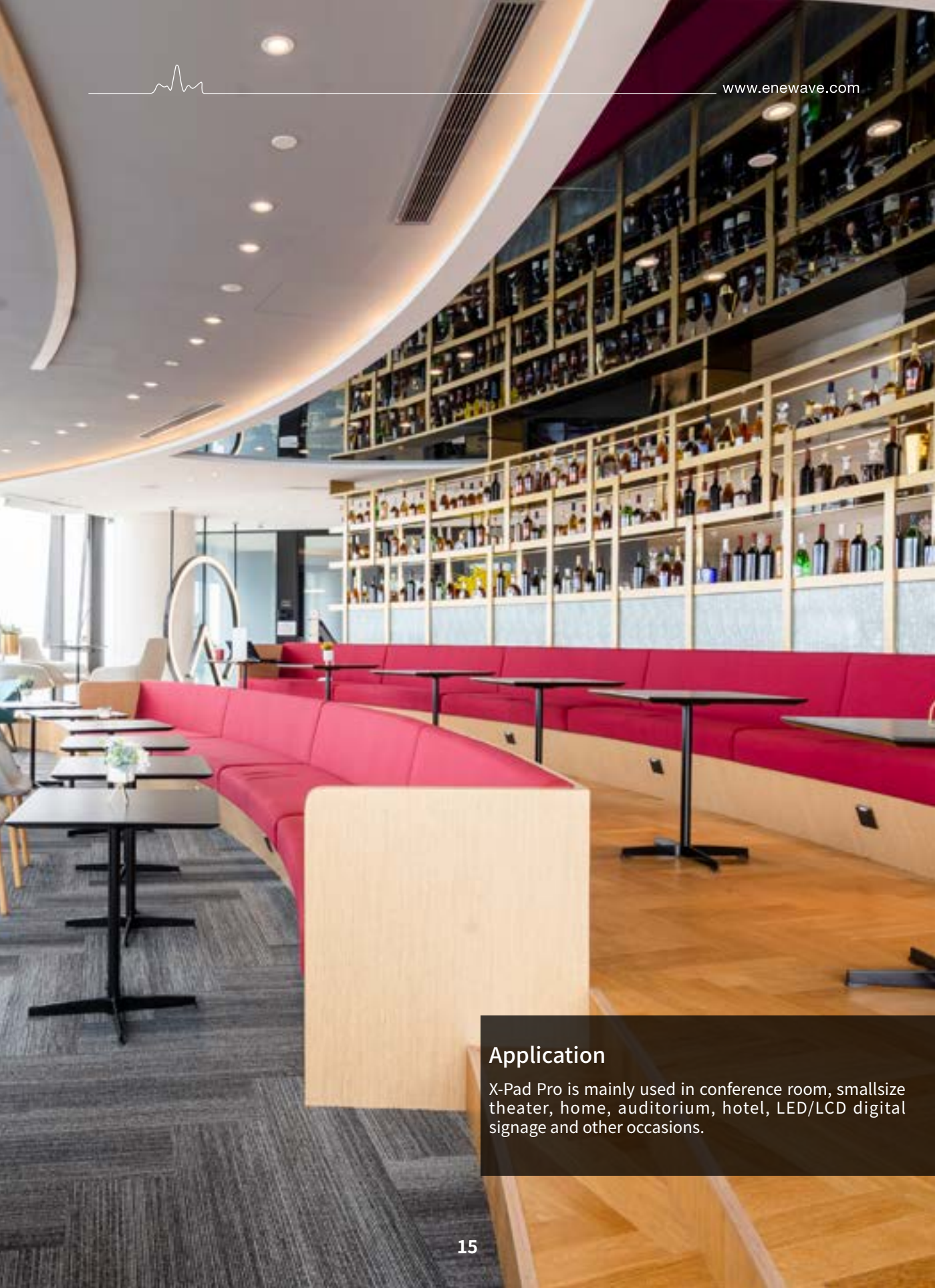
Features

- Square art enclosure
- Small, lightweight design
- 5.5" "Neodymium coaxial unit
- Powerful output capacity
- Comes with installation kits
- Wide frequency response
- Diamond Sand Paint
- Minimal integrated installation system

Description

Through the design experience of ENEWAVE engineers of X series products, the integration of environment and products has always been an important design element of X series products. While users enjoy excellent sound quality, they can also enjoy the pleasure of design aesthetics. The X-Cube point source full-range speaker is calculated and processed closely by DSP, and finally obtains excellent frequency response and phase consistency. Multi-purpose design can be used in different occasions.

Physical Parameters	
Components	5.5" woofer coupled with a 1.4" tweeter coaxial unit
Cabinet principle	Passive full-range coaxial design
Driven mode	Passive and driven by external power amplifier
Enclosure material	12mm birch plywood
Surface	Emery paint
Grills	Powder spraying on the surface of perforated steel mesh
Crossover	Internal passive 2 ways crossover network
Connector	2*ϕ3mmbarrier stripe (7.5 mm pitch)
Installation	Wall mounted, hanging, pole supported
Hanging hardware	4xM8 flying hardware
Recommend combination	X-Pad, X-Pad Pro
Dimension	154mm x 154mm x 180mm (H x W x D)
Weight	3.1 kg
Nominal Parameters	
Frequency responsible	90Hz-20KHz (±3dB)
Nominal speaker impedance	16Ω
Power capacity (AES)	130W Continue 260W Program 520W Peak
Maximum SPL (1m/ calculated)	121dB
Vertical dispersion angle (-6dB)	100°
Horizontal dispersion angle (-6dB)	100°



Application

X-Pad Pro is mainly used in conference room, smallsize theater, home, auditorium, hotel, LED/LCD digital signage and other occasions.

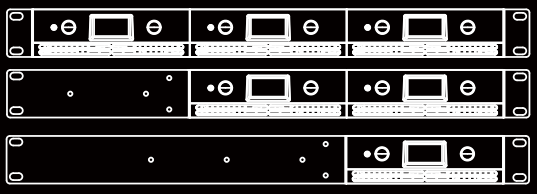
Product overview

XA-300.2

XA-300.2 is an intelligent digital power amplifier specially designed for the AV integration market based on the concept of Internet of Things among X-AMP intelligent power amplifiers. It integrates remote management, digital signal transmission, digital signal processing, E-Link bus, closed-loop control, etc. These functions are integrated into one, and can be managed and controlled through the cloud through its own software or with a third-party IoT management platform, making system integration easier and more convenient.XA-300.2The small and compact design of XA-300.2 can meet various installation methods such as cabinet installation, table bottom installation, wall installation, and machine back installation through flexible combination.-Various built-in sensing devices detect various states of power amplifiers and speakers in real time, and use closed-loop control to automatically adjust various parameters in real time, so that power amplifiers and speakers are always in the best working state.

Combination

Various combinations



Application

XA-300.2 intelligent power amplifier has built-in powerful DSP function, up to 96 IIR filter resource pools of various forms, 1024-order FIR filter, 6 real-time sampling limiter controls, providing comprehensive control and protection for speakers and power amplifiers . The built-in Dynamic EQ can simulate the effect of equal loudness circuit (Loudness), which can automatically boost low-frequency and high-frequency signals when listening at low volume such as conference rooms or commercial spaces, so as to obtain better tone balance.

XA-300.2 Class D power amplifier with PFC technology provides high-efficiency output, effectively reduces energy consumption, reduces heat generation, and can automatically adapt to the global operating voltage of 100V ~ 240V. The XA- 300.2 Load environment, whether the load is resistive, capacitive, inductive or the superposition of several characteristic impedances. The application of variable oscillation modulation technology and multiple feedback control greatly improves the low resistance load performance of the power amplifier. And can be used as a constant voltage power amplifier with 100V output through bridge connection.

Based on E-Link (Enewave Link Bus) bus technology and X-COM network protocol, it fully integrates the officeLAN communication, RS-485 serial communication and USB communication make the connection and control of the system very simple and convenient.

Installation method

A variety of combination methods Compact 1/3 width design, suitable for combination cabinet installation, wall installation, screen back installation, table bottom installation and other installation methods, simplifying conference integration.

Specifications

Amplifier

- Rate power(RMS THD=1%,continue sine wave 1KHz , typical):

  2x350W/8ohms;2x450W/4ohms (Dual)

  1x900W/8ohms(Bridge)

  1x900W/100V (Constant voltage)

- Voltage gain：27.8dB(8Ω,1kHz)
- THD+N/typical： 0.001%(10%RMS output power,1kHz,8Ω)
- Frequency response：20Hz-20kHz (typical: ±0.2dB(10%MS output power,8Ω)
- Input impecande：20kΩ(balance),10kΩ(unbalance)
- S/N Ratio： ⩾100dB(A weithg,20Hz-20kHz,8Ω)
- Damping factor：1000@100Hz

DSP architecture

DSP chip-set：ADI SHARC float point procession chip-set
Sample rate & bit rate：48kHz / 24bit high dynamic
AD/DA dynamic: typical， 114dB
Protection：over thermal, over load, DC output
Processor：Gain,HPF,LPF,IIR parameter EQ ,
FIR filter,dynamicEQ，delay,output current limiter with
output feedback,voltage limiter, thermal limiter,Impedance
abnormality protection, overload protection etc.

Unit specifications

Power supply: 100~240VAC, 50/60Hz
1U installation height, three modules can form a 19” standard
rack-mounted 6-channel power amplifier
Dimension: 145mm X mm X 44mm X 354mm (W X H X D)
Packing dimension: 305mm X 90mm X 470mm (W X H X D)
Net weight:1.95KG
Shipping weight: 3.75KG

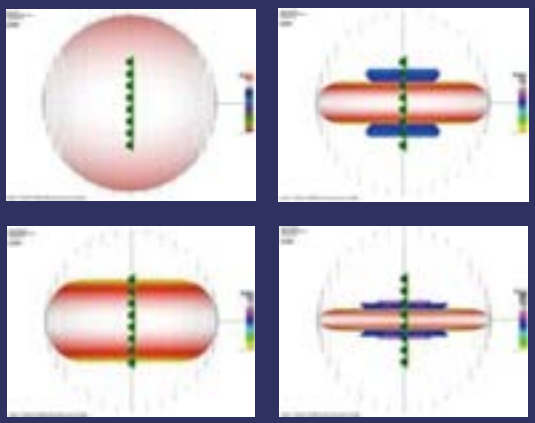
LCA Series

Line source Coulumn Array

Product overview

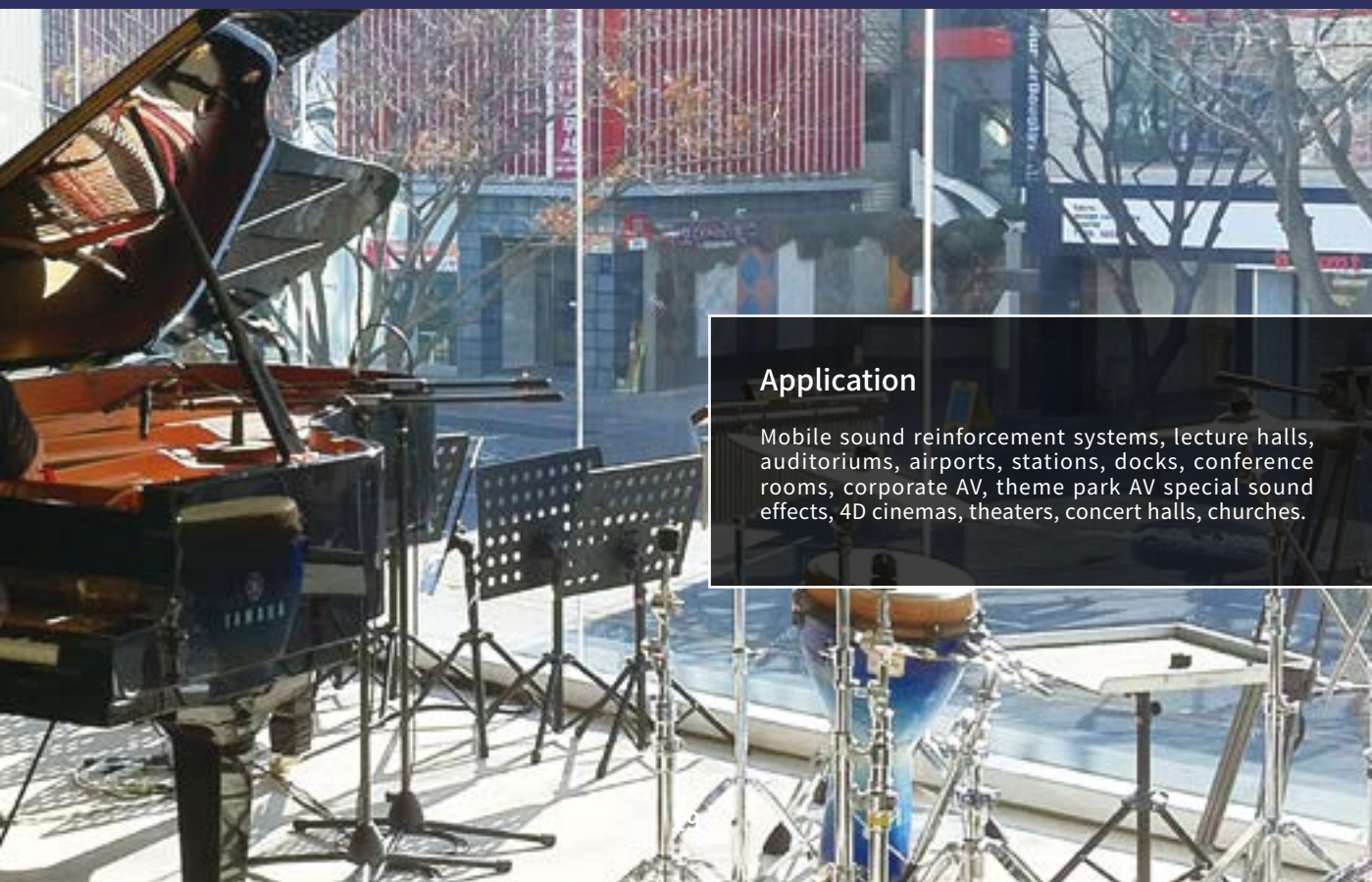
Line sound source array sound column principle

According to the theory of line sound source array, if the distance between the units is short enough, the sound between the units can be directly coupled without special structure. The distance of the elements directly affects the upper limit of the coupling frequency, while the length of the array affects the lower limit of the frequency.



Use of DSP Technology

Since the array effects of different frequencies are not the same, the original frequency response and phase response of the line sound source array sound column are not very ideal, and it is difficult to solve these problems through simple structural adjustment (mainly the distance of the speakers). ENEWAVE engineers use advanced DSP technology to solve these problems. Through the precise processing of DSP, ENEWAVE line source array column finally achieves excellent frequency response and phase consistency.



Application

Mobile sound reinforcement systems, lecture halls, auditoriums, airports, stations, docks, conference rooms, corporate AV, theme park AV special sound effects, 4D cinemas, theaters, concert halls, churches.

Speaker unit technoloty

1 ENEWAVE engineers start from the design of the speaker unit to design the line sound source array column. A small enough unit is the premise of a fullband array sound column. However, when the diaphragm of the unit is too small, it will bring a series of problems - sensitivity, power, frequency response range, etc.

2 ENEWAVE micro-units all use magnesium-aluminum alloy diaphragms, which are lighter in weight and stronger than ordinary paper diaphragms or PP plastic diaphragms. Lighter weight is beneficial to improve high frequency response, and sufficient strength is the premise of high withstand power.

3 The ENEWAVE micro-unit adopts a 1-inch magnesium-aluminum alloy skeleton and is wound with a square-section copper wire, which can withstand more than 25W of power.

4 The voice coil and diaphragm of the ENEWAVE miniature unit are made of one-piece molding technology. The diaphragm and the voice coil are completely integrated, which can quickly dissipate the heat of the voice coil through the diaphragm. Excellent heat dissipation design enables the unit to work stably at full power for a long time.

5 The ENEWAVE miniature unit introduces a magnetic short-circuit ring design, which expands the highfrequency frequency response, improves the highfrequency sensitivity, and reduces high-frequency distortion.

Structural technology

All aluminum alloy cabinet, light weight and beautiful. The surface is sandblasted and oxidized, with a fine texture and a variety of wiring accessories, which are widely used. Fully sealed design, high protection level, complete accessories, quick installation

Features

- Compact and lightweight design
- High-power small neodymium magnetic glass fiber basin full-frequency unit
- High fidelity sound quality, high sound pressure output
- Precise pointing control
- Modular array design
- Complete accessories

Lark

The Lark is a small bird with an extremely loud call. ENEWAVE Lark System has a slender and compact body, but it can emit sound pressure that is not commensurate with its body.
Lark System using the latest technology can be used for music sound reinforcement, conference sound reinforcement, bar music playback, multimedia interaction, theme parks and other occasions.

Features

- Compact and lightweight design
- 2" neodymium magnetic glass fiber cone full frequency driver
- Integrated mounting system
- Strong output capability
- Low distortion, high fidelity
- High directivity
- Broad frequency response
- Optional mounting accessories

Lark-8

Physical Parameters

Components
Cabinet principle
Driven mode
Cabinet material
Surface
Install accessories
System support
Dimension
Weight
Nominal Parameters
Frequency responsible

Sensitivity (1 Watt@ 1m)
Nominal impedance
Power capacity (AES)

Maximum SPL (1m/calculated)
Dispersion angle (-6dB)

Lark-16

Physical Parameters

Components
Cabinet principle
Driven mode
Cabinet material
Surface
Install accessories
Wall Mount Bracket LSB-1 (option)
System support
Dimension
Weight
Nominal Parameters
Frequency responsible
Sensitivity (1 Watt@ 1m)
Nominal impedance
Power capacity (AES)

Maximum SPL (1m/calculated)
Dispersion angle (-6dB)

Lark-8 + AS-12

8x 2" Neodymium magnet glass fiber cone unit
Full range line array cabinet
Passive and driven by internal amplifier of AS-12
Aluminum alloy
Oxidation treatment
Fixed pole PB-1 and extension pole EP-1
Wall Mount Bracket LSB-1 (option)
AS-12 Active sub-roofer
454mm x 68mm x 72mm (H x W x D)
1.45kg
50Hz-20KHz (+/-3dB)
125Hz-20KHz (-10dB)
92dB
8Ω
Continue 200W
Program 400W
Peak 800W
121dB Peak
100° (H), 10° (V)

Lark-16 + AS-15

16x 2" Neodymium magnet glass fiber cone unit
Full range line array cabinet
Passive and driven by internal amplifier of AS-15
Aluminum alloy
Oxidation treatment
Fixed pole PB-1 and extension pole EP-1

AS-15 Active sub-roofer
902mm x 68mm x 72mm (H x W x D)
2.85kg
150Hz-20KHz (+/-3dB)
125Hz-20KHz (-10dB)
95dB
4Ω
Continue 400W
Program 800W
Peak 1600W
127dB Peak
100° (H), 10° (V)

Shrike

Small in size, but faster than the falcon, and has a beautiful and ever-changing song. ENEWAVE's Shrike array column also has powerful output sound pressure and clear and transparent sound quality.

Features

- Compact and lightweight design
- 3.5" neodymium magnetic glass fiber conefull frequency driver
- Integrated mounting system
- Strong output capability
- Low distortion, high fidelity
- High directivity
- Optional mounting accessories
- Broad frequency response

Shrike-8

Physical Parameters

Components
Cabinet principle
Driven mode
Cabinet
Surface
Install accessories

System support
Dimension
Weight
Nominal Parameters
Frequency responsible

Sensitivity (1 Watt@ 1m)
Nominal impedance
Power capacity (AES)

Maximum SPL (1m/calculated)
Dispersion angle (-6dB)

Shrike-16

Physical Parameters

Components
Cabinet principle
Driven mode
Cabinet
Surface
Install accessories

System support
Dimension
Weight
Nominal Parameters

Frequency responsible
Sensitivity (1 Watt@ 1m)
Nominal impedance
Power capacity (AES)

Maximum SPL (1m/calculated)
Dispersion angle (-6dB)

Shrike-8 + AS-18

8x 3.5" Neodymium magnet glass fiber cone unit
Full range line array cabinet
Passive and driven by internal amplifier of AS-18
Aluminum alloy
Oxidation treatment
Fixed pole PB-1 and extension pole EP-1
Wall Mount Bracket LSB-1 (option)
AS-18 Active sub-roofer
730mm x 105mm x 108mm (H x W x D)
4kg
Nominal Parameters
98Hz-18.5KHz (+/-3dB)
90Hz-20KHz (-10dB)
94dB
8Ω
Continue 240W
Program 480W
Peak 960W
124dB Peak
100° (H), 10° (V)

Shrike-16 + AS-18

16x 3.5" Neodymium magnet glass fiber cone unit
Full range line array cabinet
Passive and driven by internal amplifier of AS-18
Aluminum alloy
Oxidation treatment
Fixed pole PB-1 and extension pole EP-1
Wall Mount Bracket LSB-1 (option)
AS-18 Active sub-roofer
1054mm x 105mm x 105mm (H x W x D)
8kg
Nominal Parameters
98Hz-18.5KHz (+/-3dB)
90Hz-20KHz (-10dB)
97dB
4/16Ω
Continue 480W
Program 960W
Peak 1920W
130dB Peak
100° (H), 10° (V)

LCA Line Column Array speaker accessories

PB-1

Features

- Light and quick assembly and disassembly
- Flexible combination, which can be used flexibly according to different installation accessories
- All aluminum alloy design, light and beautiful
- The surface is sandblasted and oxidized with afine texture

Specifications

Material -Aluminum alloy
Surface Sandblasting- qxidation treatment
Dimension-175mm X 42.5mm X 51.5mm
+ 35.5mm (L x W x D +Φ(inside diameter))

SJ-1

Features

- Light and quick assembly and disassembly
- Use with PB-1
- All aluminum alloy design, light and beautiful
- The surface is sandblasted and oxidized with a fine texture

Specifications

Material- Aluminum
Surface Sandblasting- oxidation treatment
Dimension- 35mm X 154mm +15mm M x L + L（thread length)

EP-1

Features

- Light and quick assembly anddisassembly
- Flexible combination, which can be used flexibly according to different installation accessories
- All aluminum alloy design, light and beautiful
- The surface is sandblasted andoxidized with a fine texture

Specifications

Material- Aluminum alloy
Surface Sandblasting-Oxidation treatment
Dimension 747mm + 35mm (L+Φ)

LS-1

Features

- Light and quick assembly and disassembly
- Connection between LCA cabinets
- All aluminum alloy design, light and beautiful
- The surface is sandblasted and oxidized with a fine texture

Specifications

Material- Aluminum alloy
Surface Sandblasting-Oxidation treatment
Dimension-154mm X 31.8mm X 5mm (L+W+D)

WP-1

Features

- Light and quick assembly and disassembly
- Wiring waterproof design
- All aluminum alloy design, simple and beautiful
- The surface is sandblasted and oxidized, with a fine texture

Specifications

Material- Aluminum alloy
Surface sandblasting- Oxidation treatment
Dimension- 125mm X 27mm +32.5mm (L x W + D)

SMT-45

Features

- Light and quick assembly and disassembly
- 45° elevation angle
- All aluminum alloy design, light and beautiful
- Black sandblasted oxidation treatment, delicate texture

Specifications

Material- Aluminum alloy
Surface sandblasting- Oxidation treatment
Dimension- 124mm X 42.75mm (L + H))

SP-1

Features

- Light and quick assembly and disassembly
- speakON quick docking
- All aluminum alloy design, light and beautiful
- The surface is sandblasted and oxidized, with a fine texture

Specifications

Material- Aluminum alloy
Surface sandblasting- Oxidation treatment
Dimension- 125mm X 27mm +32.5mm (L x W + D)

LSB-1

Features

- Light and quick assembly and disassembly
- LCA wall mount kit, rotatable angle
- All aluminum alloy design, light and beautiful
- The surface is sandblasted and oxidized, with a fine texture

Specifications

Material- Aluminum alloy
Surface sandblasting- Oxidation treatment

AS Series
Active System

Products Introduction

It has always been our quest to simplify the AS Series active system and improve the LCA Series and VS Series. It's not just an active speaker, it's an active system with built-in DSP with amp module output. The AS Series has built-in powerful DSP processing and an efficient digital amplifier, allowing the LCA Series and VS Series speakers to be upgraded to active systems.AS series available in 12-inch, 15-inch, and 18-inch models, it can be flexibly matched to LCA Series and VS Series speakers to meet different needs.

AS Series Features

- Lightweight, portable, Easy & Quick assembly and dismantle
- Powerful output, Max SPL 133dB
- Built-in DSP module, 4 Presets
- Powersoft Armonia software tunning & control
- Flexible combination, flexible for different venues

Technology application and features

Equipped with a powerful DSP processing circuit, it can store a variety of speaker control parameters, and a simple call can obtain excellent sound quality and accurate protection. Firmware can be managed and controlled or upgraded via Armonia software.
The ClassD digital power amplifier with built-in PFC technology has high efficiency and low heat generation, providing surging power output for the system. The perfect protection circuit ensures the safety and reliability of the system.
Above are Powersoft technologies

DSP Performance	
Delay	Each output Up to 340 ms delay time adjustment
Input EQ	5 parametric equalizers: hi/lo-shelving, all-pass,bandpass, band-stop, hi/lo-pass
Output EQ	Parametric IIR filters: peaking, hi/lo-shelving, allpass,band-pass, band-stop, hi/lo-pass
Crossover	Butterworth, Linkwitz-Riley, Bessel:6 dB/oct to 48 dB/oct (IIR)
Limiter	Peak limiter, RMS limiter,frequency dependent RMS limiter, Clip limiter,Temperature limiter
Parameter lock protection	Support User define for setting parameters and protections.
Frequency response	20 Hz- 20 kHz(- 0.5dB)
Max input SPL	8.2 V / + 20 dBu
Max Output SPL	4.1 V / + 14.3 dBu
S/N Ratio (Analog to Analog)	>> 113d
THD+N	< 0.02%(20 Hz-20 kHz)
Dynamics (AD/DA)	118dB/114dB

Application

Mobile sound reinforcement, clubs, clubs, churches, hotels, businesses.

AS-12

- Rich combination presets
- Balanced analog input including DSP
- Full digital power amplifier processing
- Compact button controls
- Connection/Signal/Peak Indication

Physical Parameters	
Components	1x12" ferrite unit, waterproof coating.
Cabinet principle	Bass reflex built-in Class D amp. & DSP
Cabinet shape	Rectangle
Cabinet material	15/18mm Baltic birch plywood, tongue and groove joint
Surface	Water-based anti-scrach coating
Connector	1x powerCON power input 1x NL4 speaKON output 1x female XLR input 1x XLR link output
Dimension	440mm x 352mm x 500mm (H x W x D)
Weight	21kg
Nominal Parameters	
Frequency responsible	40Hz-250Hz (+/-3dB) 35Hz-500Hz (-10dB)
Power amplifier output	400W+800W
Maximum SPL (1m/ calculated)	130dB

AS-15

- Rich combination presets
- Balanced analog input including DSP
- Full digital power amplifier processing
- Compact button controls
- Connection/Signal/Peak Indication

Physical Parameters	
Components	1x15" ferrite unit, waterproof coating.
Cabinet principle	Bass reflex built-in Class D amp. & DSP
Cabinet shape	Rectangle
Cabinet material	15/18mm Baltic birch plywood, tongue and groove joint
Surface	Water-based anti-scrach coating
Connector	1x powerCON power input 1x NL4 speaKON output 1x female XLR input 1x XLR link output
Dimension	490mm x 433mm x 600mm (H x W x D)
Weight	25.2kg
Nominal Parameters	
Frequency responsible	45Hz-1KHz (+/-3dB) 40Hz-4KHz (-10dB)
Power amplifier output	400W+800W
Maximum SPL (1m/calculated)	131dB

AS-12 / AS-15 rear panel

AS-18 rear panel

AS-18

- Rich combination presets
- Balanced analog input including DSP
- Full digital power amplifier processing
- Compact button controls
- Connection/Signal/Peak Indication

Physical Parameters

Components	1x18" Neodymium cone woofer.
Cabinet principle	Bass reflex built-in Class D amp. & DSP
Cabinet shape	Rectangle
Cabinet material	15/18mm Baltic birch plywood, tongue and groove joint
Surface	Water-based anti-scrach coating
Connector	1x powerCON power input 1x NL4 speaKON output 1x female XLR input 1x XLR link output
Dimension	586mm x 500mm x 750mm (H x W x D)
Weight	47kg

Nominal Parameters

Frequency responsible	35Hz-500Hz (+/-3dB) 28Hz-2KHz (-10dB)
Power amplifier output	1000W+2000W
Maximum SPL (1m/ calculated)	133dB

CS Series

Commercial Installation Series

Cloud-like sense of surround sound, elegant appearance, easy installation and lasting durability, pursuit is Enewave of CS.

CS Series speakers are designed specifically for public installation projects, a large number of applications in background music systems, public broadcasting, sound reinforcement, environmental sound systems, design of such speakers is necessary to focus on sound quality, appearance, installation methods, use of environmental adaptability.

Products Introduction

In order to meet the requirements of different applications for frequency response, all CS series speaker is designed with two, fullspectrum replay. According to the enclosure resonance cavity size, frequency and power requirements, Enewave engineers redesigned the woofer, long-stroke design, effectively reducing the distortion of high power, high strength composite vibration PP in ensuring enough strength at the same time, also has a waterproof capacity. Treble use sophisticated silk dome tweeter membrane. Speaker built-in passive crossover networks, voice clear, high clear, powerful low frequency. Use with Galaxy digital audio processing products, the sound quality will be further improved. Some products have a built-in impedance transformer, a switch can be used in constant resistance or pressure, and you can adjust the power.

Cabinet design with high strength ABS engineering plastics and high quality galvanized steel sheet, levels of protection IP24, can be used in a variety of settings, including outdoor environment. Designs into full consideration and integration of the built environment, ceiling speaker with ultra thin edge design, wall-mounted speakers are beautiful arc shape. Users can change DIY speaker color, and more integrated into the environment. Structure is fully taken into account ease of installation, with different accessories to make installation easier and faster, single person will be able to operate.

Product Features

- 2-way design.
- The broad, flat frequency response and low distortion.
- Back metal tube, meet fire safety requirements
- Installation is simple, secure, built-in full set of mounting accessories
- Multi-tap transformers, constant resistance, 70V or 100V, mode a variety of power options

CS-4C

Two way with 4 inch bass driver and
3/4 inch spherical diaphragm tweeter

Performance	
Frequency response	75Hz-20kHz(+/-3dB); 55Hz-22kHz(-10dB)
Constant resistance power	30W
Maximum output power	50W
Recommended power amplifier	10-200W
Nominal Impedance	8Ω
Nominal sensitivity	87dB SPL 1W @ 1m （3.3ft）
Maximum sound pressure level	107dB（peak）
Nominal coverage	110° x 110°
Transformer tap power	30-15-7.5-3.75W @ 70V X-30-15-7.5W @ 100V
Component	
Low frequency unit	4″ molding compound cone low frequency unit
High frequency unit	3/4 ' spherical diaphragm tweeter
Crossover point	2.8kHz
Physical parameters	
Connector	Barrier Strip
Dimensions	200mm×205mm(DxH)
Net weight	2.50kg

CS-6C

Two way with 6.5 inch bass driver and
1 inch spherical diaphragm tweeter

Performance	
Frequency response	52Hz-20kHz(+/-3dB); 45Hz-22kHz(-10dB)
Constant resistance power	70W
Maximum output power	100W
Recommended power amplifier	15-300W
Nominal Impedance	8Ω
Nominal sensitivity	89dB SPL 1W @ 1m （3.3ft）
Maximum sound pressure level	111dB（peak）
Nominal coverage	110° x 110°
Transformer tap power	40-30-20-10-5W @ 70V X-40-30-20-10W @ 100V
Component	
Low frequency unit	6.5″ molding compound cone low frequency unit
High frequency unit	1' spherical diaphragm tweeter
Crossover point	2.8kHz
Physical parameters	
Connector	Barrier Strip
Dimensions	220mm×257mm(DxH)
Net weight	3.45kg

CS-8C

Two way with 8 inch bass driver and 1 inch spherical diaphragm tweeter

Performance	
Frequency response	50Hz-20kHz(+/-3dB); 45Hz-22kHz(-10dB)
Constant resistance power	80W
Maximum output power	120W
Recommended power amplifier	20-400W
Nominal Impedance	8Ω
Nominal sensitivity	89dB SPL 1W @ 1m （3.3ft）
Maximum sound pressure level	114dB（peak）
Nominal coverage	90° x 90°
Transformer tap power	60-30-15-7.5W @ 70V X-60-30-15W @ 100V
Component	
Low frequency unit	8″ molding compound cone low frequency unit
High frequency unit	1' spherical diaphragm tweeter
Crossover point	2.8kHz
Physical parameters	
Accessory	N/A
Connector	Barrier Strip
Dimensions	265mm×356mm(DxH)
Net weight	5kg

CS-84S

CS-84S is a new type of multi-purpose all-weather speaker. It uses a unique driver configuration. In a triangular box, the active woofer and tweeter emit forward, and dual passive low-frequency radiators are backward. Launch on both sides. This means that a large amount of controllable bass energy can be obtained, which is sufficient for outdoor courtyards, cruise decks or swimming pools.

With impressive sound, the excellent design of ENEWAVE engineers allows outdoor entertainment to once again achieve a balance of sound accuracy, radiation, and power. When designers define and design CS-84S speakers, they plan according to the IPX6 rating, which means that they can be submerged in the pouring rain and still work normally. So no matter how much moisture there is in the air, these speakers can be used continuously.

Product Features

- Triangular column art box
- Small and lightweight design
- "X" elliptical woofer
- Powerful output capacity
- Comes with installation accessories
- Broad frequency response
- Minimal integrated installation system
- Outdoor installation

ELEGANT ART

The elegant cross-sectional design of the Rulox triangle can be seamlessly integrated with all types of decorative styles. The design of the CS-84S allows the speaker to be perfectly integrated with the inside and outside of the exterior, perfectly showing the visual appeal of the exterior of the speaker.

EASY INSTALLED

Designed to provide the same great listening experience in different installations. The wide throw range enables effective coverage with a minimum number of speakers. Connect the tap to adjust the volume (output wattage) after installation for added operational flexibility. Rather than a simple afterthought, attached as a mechanical "unit" to the wall, these speakers are ideal for homeowners and anyone looking to deliver high-quality sound without spoiling the interior.

EXQUISITE PLAY BACK

Intuitively express superior sound quality and clarity. Get massive and controlled bass energy, enough to deliver impressive sound in areas like outdoor patios, cruise ship decks or swimming pools. The CS-84S will deliver a refined, natural-sounding sound. To provide expressive music playback at low volume levels, ENEWAVE uses years of technology and experience to tune the system for natural reproduction of instruments and vocals. A selection of premium drives and components enhances the overall quality.

CS-84S

The CS-84S adopts column pressure model cabinet with polyethylene high-density material, high insulation dielectric strength, and excellent impact resistance. The complex model design supports the woofer under the precise model with absolute precision and is supported by a unique structure and guided airflow control to ensure the highest performance.

Physical Parameters

Components	4x8" fiberglass woofer 1x 1” aluminum film tweeter 2x passive low frequency radiators
Cabinet principl	Passive 2 ways full-range cabinet
Driven mode	Driven from external power amplifier
Appearance	Recessed ceiling with Galvanized steel sheet,
Grille	integrally formed back can
Connector	Aluminum punching cover
Installation	Phoenix/Euro block with water-proof cover Wall mounted, Surface embedded
Dimension	330x 178x 178mm (Hx Wx D)
Weight	3.15kg

Nominal Parameters

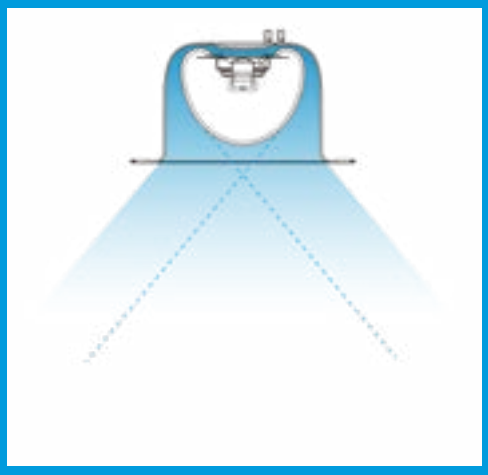
Frequency responsible	58Hz-20KHz (±3dB) 52Hz-20KHz (-10dB)
Sensitivity (@1Watt/1m)	89dB
Nominal impedance	6Ω/70V/100V
Power capacity (AES)	Continue 50W Program 100W Peak 200W
Maximum SPL (1m/calculated)	112dB
Vertical dispersion angle (-6dB)	100°
Horizontal dispersion angle(-6dB)	100°

Application

- Concert Hall
- Yard
- Cruise
- Theme park
- Exhibition hall
- Meeting room
- Lecture Hall
- Church

CS-3CN

CS-3CN is a new addition member to the CS Public Address Installation Series and is designed for specific scenarios.
The traditional ceiling speakers generally have the characteristics of wide coverage angle, weak sound direction, and unclear sound quality when used in high ceiling space. When used in conference area sound reinforcement, between the area and area’ s sound overlap situation is serious.
The CS-3CN uses a patented foldback horn to effectively control the projection angle and project the sound where you need it.



CS-3CN

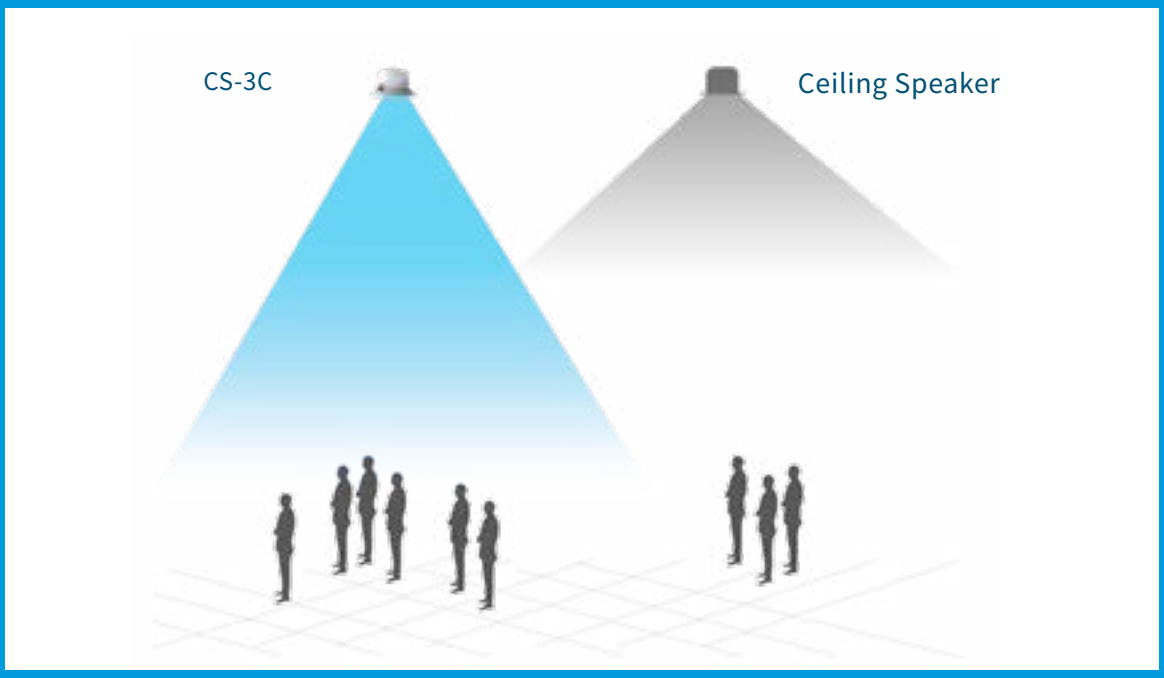
Ceiling Speaker

Product Features

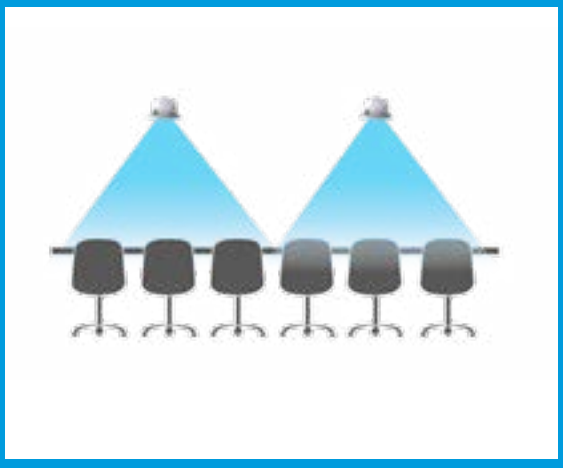
- Full range driver design
- Optimize vocal performance
- Forced sound direction control
- Easy and quick install

High quality neodumium full range speaker driver, frequency response 90~18k Hz.

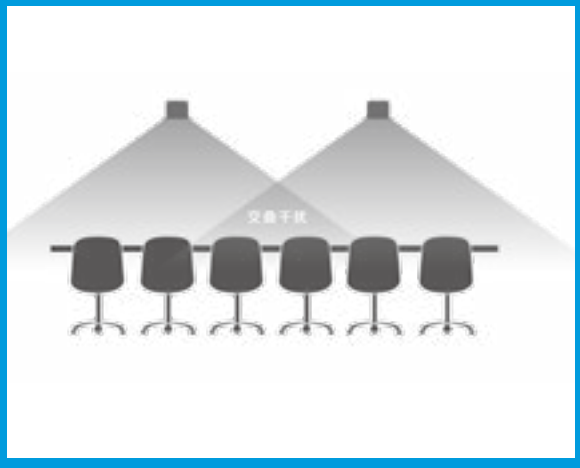
High-quality sound can be delivery in high headroom space



Provides more precise partition control when partitioning sound reinforcement



CS-3CN



Ceiling Speaker

CS-3CN

3.5” forced sound direction ceiling speaker,Ceiling speaker with full ABS injection plastic cabinet, light-weight, High-density.

performance	
Frequency response	90Hz-20kHz(+/-3dB)/70Hz-20kHz(-10dB)(Through processor)
Power handling	30W Continue , 60W Program, 120WPeak
Amp power output suggestion	20-60W
Impedance	4Ω
Sensitivity	85dB SPL 1W @ 1m (3.3ft)
Max SPL	106dB(Peak)
Nominal coverage	60° x60°
Component	
Driver	3.5” full range unit, fiber glass diaphragm, composite rubber edge, 1” voice coil
Physics	
Structure	Patented folding horn loading
Connector	Spring clip
Size	170mm×285mm(HxD)
Speaker ring hole size	245mm (D)
Weight	2.5kg

Application

Conference room, Court, Hotel, Exhibition center, Hi-tech & Science museum···

TOURING SYSTEM

VLA Series

Vertical Line Source Array Series

The reason why the vertical line sound source array speaker is popular is that it effectively solves the interference problem, transmission attenuation problem and equipment installation problem of the array speaker.

LCA Series

Line Source Column Array

The Lark is a small bird with an extremely loud call. The ENEWAVE Lark System has a slender and compact body, but can emit a sound pressure that is not commensurate with its body volume.
Lark System using the latest technology can be used for music sound reinforcement, conference sound reinforcement, bar music playback, multimedia interaction, theme parks and other occasions.Small in size, but faster than the falcon, and has a beautiful and varied singing voice. ENEWAVE's Shrike array column also has powerful output sound pressure and clear and transparent sound quality.

AS Series

Active System

Simplifying complexity has always been our pursuit, AS series is specially designed to simplify and perfect LCA series and VS series. The AS series active system can easily expand the low frequency of the LCA series and VS series speakers to meet the needs of more application scenarios. At the same time, AS has built-in powerful DSP processing and high-efficiency digital power amplifier, allowing LCA series and VS series speakers to be instantly upgraded to active systems.

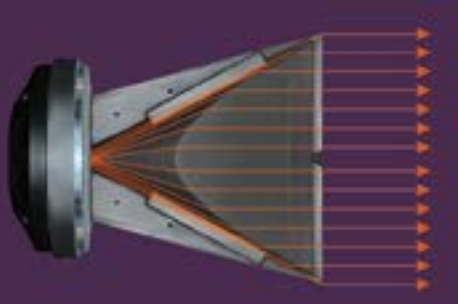
VLA Series

Vertical Line Source Array Series

Product overview

"Axe type phase plug" waveguide technology

How to change the spherical wavefront diffusion mode of ordinary speakers into cylindrical wavefront diffusion mode is the key to line source array speaker technology. ENEWAVE R&D engineers have designed a unique axe type phase plug through precise calculations.
The axe type phase plug is placed in front of the compression driver. The spherical wave emitted by the compression driver passes through the surface of the axe phase plug. No matter which way, both can be simultaneously When reaching the narrow slot in front, the same phase and frequency form a new cylindrical wavefront again. When more speakers are closely stacked, the longer columnar wavefront is formed, and the sound pressure level is superimposed, but no interference is formed. Different from the spherical wavefront diffusion attenuation, the sound pressure level attenuation is about 3dB (the spherical wavefront is 6dB) for every double distance of the cylindrical wavefront, so the line source array speaker is more suitable for long-distance transmission.



Axe type phase principle

VLA-208

- Compact and lightweight, with powerful output capability.
- Modular design, linear source array technologies, perfect sound coupling.
- Wide-band 2-way structure, 2x8-inch low-mid rangeunits,1x1.5 inch tweeter compression driver.
- Wide-band high-precision coverage angle control.
- Integrated suspension bracket system, suitable for touring system and fixed installation.
- Full DSP control, precise phase control, excellent frequency response.

Performance	
Frequency response	80Hz-18kHz(+ /-3dB)65Hz-20kHz(-10dB)
Power handing (AES)	HF: 60W (continuous), 120W (program), 240W (peak) LF: 350W (continuous), 700W (program), 1400W(peak)
Recommend Power amplifier	HF: 80-100W, MF: 400W-600W
Nominal impedance	HF: 8 Ohms, LF:8 Ohms
Nominal sensitivity	HF: 109dB, 1W @ 1m(3.3ft) MF: 99dB, 1W @ 1m(3.3ft)
Maximum sound pressure level	HF: 133dB(peak); ML:130dB (peak)
Nominal coverage	100° x 10°
Speaker unit	
Low/Mid	2x 8 inches paper cone driver
High	1x 1.5 inches compression driver
Physical parameters	
Structure	Full range 2-way line array speaker
Cabinet	Baltic Birch plywood, environmentally friendly waterborne paint
Connector	2 x NL4 Speakon
Dimension	225mm x 636mm x 440mm (HxWxD)
Net weight	21kg
Recommend combination	
Cabinet	4 x VLA-208, 2 x VLA-208SUB 1 x Venus-8016
Amplifiers & Processor	2x DA1000.4 for LM/MF/LF 1x DA3000.2 for Sub-woofer SW-218II
Fly case	1 Fly Case for Amplifiers, with IN/OUT patch bay,AC power distribution Sequence switch
Cable	2 PCS of 6 wires cable, 15meters for each. 4 PCS of 4 wires cable, 1 meter for each.

VLA-208SUB

- Compact design bass reflex subwoofer.
- 18 inch high output bass unit.
- high output sound pressure.
- integrated system with VLA-208.
- Baltic Birch plywood cabinet, eco-friendly water based painting.
- Robust groove joint loudspeaker cabinet.

Performance	
Frequency response	35Hz-500Hz(+ /-3dB); 28Hz-2kHz(-10dB)
Power handing (AES)	1000W (continuous), 2000W (program), 4000W (peak)
Recommend Power amplifier	1800-2500W
Nominal impedance	8 Ohms
Nominal sensitivity	99dB, 1W @ 1m(3.3ft)
Maximum sound	135dB(peak)
Speaker unit	
Woofer	1x 18 inches ferrite driver, paper cone with water-proof coating
Tweeter	N/A
Physical parameters	
Structure	Bass reflex sub-woofer
Cabinet	Baltic Birch plywood, environmentally friendly waterborne paint
Connector	2 x NL4 speakON
Dimension	500mm x 636mm x 735mm (HxWxD)
Net weight	48kg

VLA-206

- Compact and lightweight modular cabinet design withpowerful output capability, linear source array technologies, perfect sound coupling.
- Wide-band 2-way structure, 2x 6.5-inch low-mid range units,1x1 inch tweeter compression driver.
- Wide-band high-precision coverage angle control.
- Integrated suspension bracket system, suitable for touring system and fixed installation.
- Full DSP control, precise phase control, excellent frequency response.

Performance	
Frequency response	90Hz-18kHz（+ /-3dB） 70Hz-20kHz（-10dB）
Power handing (AES)	HF: 40W (CONTINUOUS)， 80W (program)， 160W (peak) MF: 240W (continuous)， 480W (program)， 960W (peak)
Recommend power amplifier	HF: 80-100W，MF：400W-600W，
Nominal impedance	HF: 8 Ohms， LF: 8 Ohms
Nominal sensitivity	HF: 106dB，1W @ 1m（3.3ft） ML: 95dB，1W @ 1m（3.3ft） HF: 128dB（peak），MF125dB (peak)
Nominal coverage	100° x 10°
Speaker unit	
Low/Mid	2 x 6.5" paper cone driver
High	1 x 1.75" compression driver
Physical parameters	
Structure	Full range 2-way line array speaker
Cabinet	Baltic Birch plywood, environmentally friendly waterborne paint
Connector	2 x NL4 speakON
Dimension	184mm x 536mm x 365mm (HxWxD)
Net weight	12kg
Recommend combination	
Cabinet	4 x VLA-206, 1 x VLA-206SUB
Amplifiers & Processor	1 x DA-650.4 For LM、MF、LF 1 xVenus-8016
Fly case	1 Fly Case for Amplifiers, with IN/OUT patch bay,AC power distribution Sequence switch
Cable	2 PCS of 6 wires cable, 15meters for each. 4 PCS of 4 wires cable, 1 meter for each

VLA-206SUB

- Compact design bass reflex subwoofer.
- 18 inch high output bass unit.
- high output sound pressure.
- Baltic Birch plywood cabinet, eco-friendly water based painting.
- Robust groove joint loudspeaker cabinet.

Performance	
Frequency response	35Hz-500Hz（+ /-3dB）； 28Hz-2kHz（-10dB）
Power handing (AES)	1000W (continuous)， 2000W (program)， 4000W (peak)
Recommend power amplifier	1800-2500W
Nominal impedance	8 Ohms
Nominal sensitivity	99dB，1W @ 1m（3.3ft）
Maximum sound pressure level	135dB（peak）
Nominal coverage	N/A
Speaker unit	
Woofer	1 x 18" Paper cone driver with water-proof coating
MF	N/A
Tweeter	N/A
Physical parameters	
Structure	Bass-reflex subwoofer
Cabinet	Baltic Birch plywood, environmentally friendly waterborne paint
Connector	2 x NL4 speakON
Dimension	600mm x 536mm x 735mm (HxWxD)
Net weight	45kg

VLA-215 System

Vertical Line Source Array Series

The new VLA215 System's large scale line array speaker system is designed for touring, high-end entertainment and fixed installations in large venues, using acoustic and electronic integrated design concepts for perfectsound coupling and extremely low output distortion.

The design of the electronic part is in cooperation with the famous Italian manufacturer-Powersoft. In addition to the mature DSP processing technology, many "black technologies" such as DPC (differential pressure control) and M-Force (linear motor drive unit) are used, which has never been seen before. The sound pressure output and the powerful sub-low punch are reproduced.

Application

Touring Sound, EDM Fair, High-end entertainment event, Fixed installations.

Technology

Mid-High frequency coaxial waveguide technology

The mid-high frequency part adopts a coaxial waveguide design, which is controlled by precise DSP to obtain a smooth transition and a good cylindrical wavefront. The high frequency driver unit is used as the phase plug of the intermediate frequency unit to form a high compression ratio output structure, so that the intermediate frequency output sensitivity is greatly improved. Optimized IF transmission path structure, the path of sound transmission to the exit is approximately equal, reducing distortion caused by phase difference.

Low frequency horizontal coupling

By optimizing the structure, the center distance of the left and right woofer units is controlled within the half-wavelength of the low-frequency upper limit frequency to avoid low-frequency horizontal phase interference.

DPC differential pressure control technology

The Sub-low woofer use the patented DPC technology, which uses the pressure sensor to detect the working state of the unit, and feeds back to the zero-latency DSP (Zero Latency DSP is trademark of Powersoft) to adjust the control parameters in real time to achieve closed-loop control.

M-Force motor drive technology

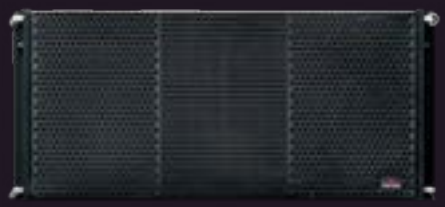
VLA-132 High-power linear motor drive technology is used to easily achieve high sound pressure output of the sub-low frequency.

Features

- 5-way design, the system consists of VLA-215 full-range speaker, VLA-215SUB sub-woofer and VLA-132 sub-woofer, which is sufficient for large-scale EDM concert applications
- The application of new technology achieves high sound pressure and low distortion output
- Compact and lightweight design, more suitable for touring transportation and installation
- Integrated hanging system, suitable for mobile system or fixed installation
- Complete set of electronic system, installation and debugging is more convenient and quick
- Armonia management software for comprehensive control and management

VLA-215

VLA-215SUB



Parameters	
Frequency response	(+/-3dB) 55Hz-19000Hz
Horizontal coverage angle(-6dB)	100 degree
Vertical coverage angle(-6dB)	8 degree
Drivers	HF:2X1.5"Exit Neodymium Driver LF:2X15"Neodymium Driver MF:2X8"Neodymium Driver
Capability(RMS/ PEAK)	LF:2X800W/2X3200W MF:2X250W/2X1000W HF:2X100W/2X400W
Impedance	LF:2X8 Ohms MF:8 Ohms HF:8 Ohms
MAX SPL(Calculated)	145dB
Crossover	DSP Processing
Connector	2 parallel connection of Neutrik Speakon NL8
Suspension kit	Aluminum alloy line-array lifting accessories
Cabinet material	15mm,18mm Multilayer birch plywood
Types of paint Finishes	Water-based paint
Front grill	Hard Steel protection
Dimension	1165mmX425mmX550mm(W×H×D)
Weight	63.5kg

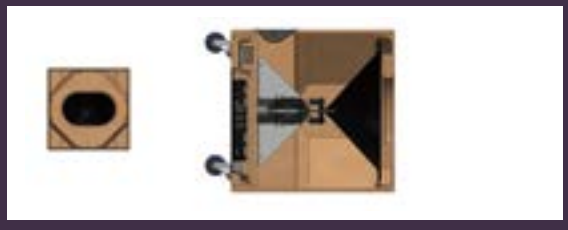
Parameters	
Frequency response	+/-3dB 35Hz-500Hz
Horizontal coverage angle(-6dB)	N/A
Vertical coverage angle(-6dB)	N/A
Drivers	18" Cone, 4" Voice Coil
Capability(RMS PEAK)	2X1000W/4000W
Impedance	2X8 Ohms
sensitivity	100dB
MAX SP (Calculated)	140dB
Crossover	DSP Processing
Connector	2 parallel connection of Neutrik Speakon NL4
Suspension kit	Aluminum alloy line-array lifting accessories
Cabinet material	5mm,18mm multilayer birch plywood
Types of paint Finishes	Water-based paint
Front grill	Hard Steel protection
Dimension	1165mmX510mmX805mm(W×H×D)
Weight	Weight : 90kg

VLA-132 Technology

Revolution in electroacoustic technology

M-Force technology uses a linear motor to drive a large-scale high-strength diaphragm, completely subverting the traditional moving coil unit working mode, the continuous working power reaches 7500W, and the output peak sound pressure output reaches 149dB which is unbelievable!

Simplified drawing of the Moving Magnet Motor

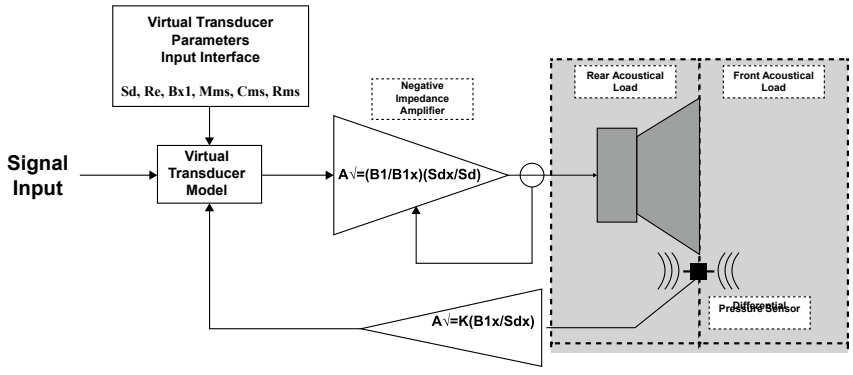


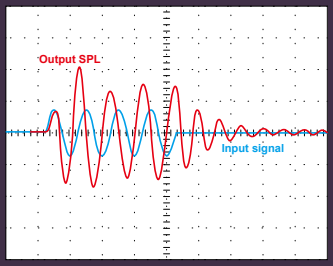
Internal view and amp housing

DPC

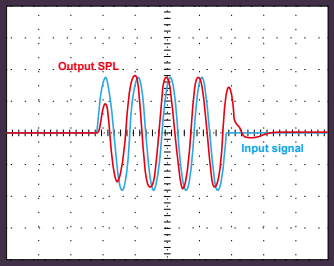
Built-in M-Drive power amplifier output power up to 15000 watts, DPC (Differential Pressure Control®) patented technology through the pressure sensor detection unit output state, feedback to the "Zero Delay" DSP real-time adjustment control parameters, to achieve input signal to sound pressure The closed-loop control of the system greatly reduces the distortion of the system, and the transient response speed is greatly improved, allowing you to hear more "clean and pure bass."

Block diagram of the complete system while used in Virtual Loudspeaker Mode





CONTROL LOOP NOT ACTIVATED



CONTROL LOOP ACTIVATED

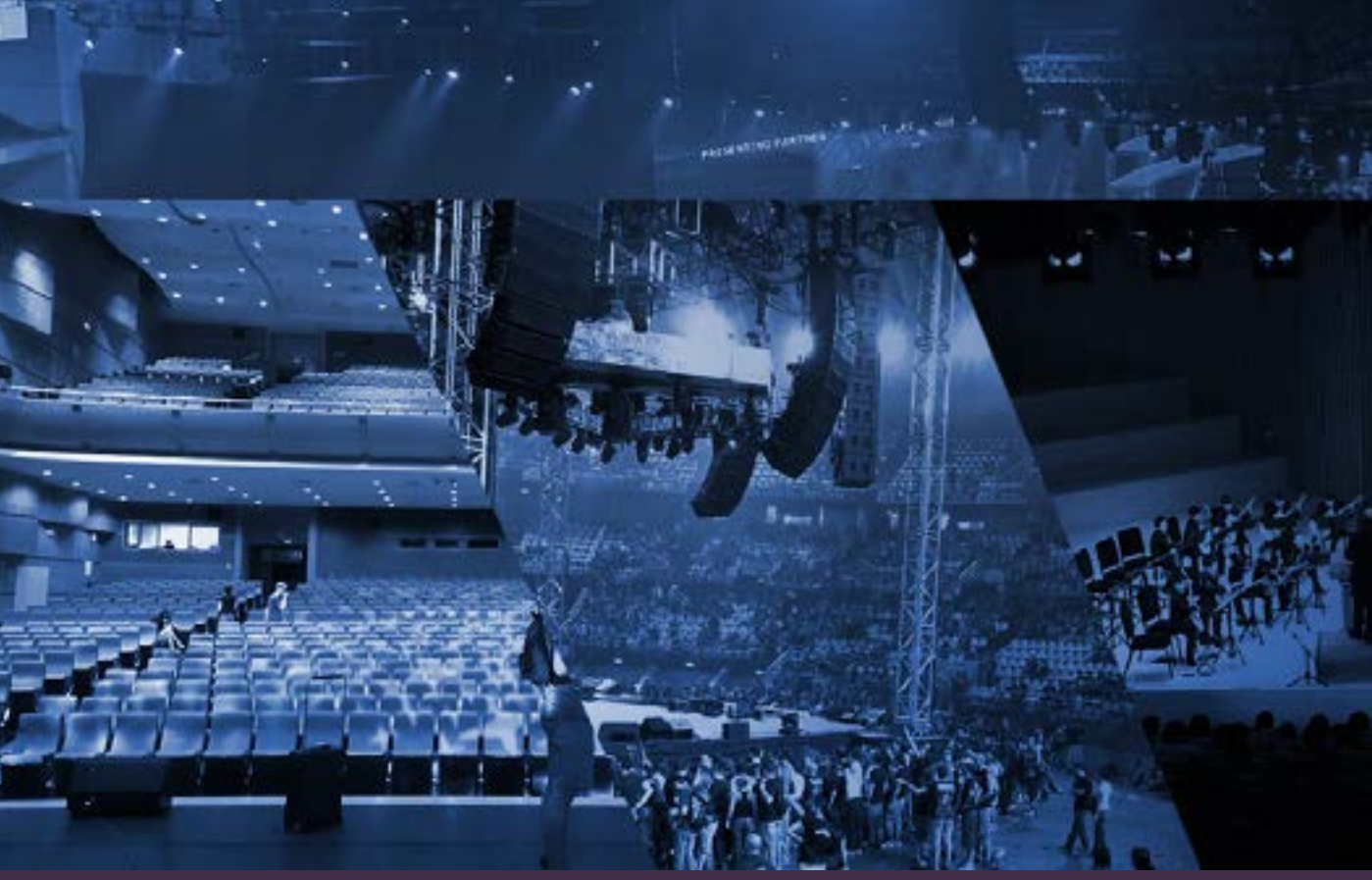
Note: M-Force, M-Driver, and DPC are registered trademarks and technologies of Powersoft Corporation.

VLA-132

With the M-Force VLA-132 active subwoofer and 149dB powerful low frequency output, the bass sound will push music atmosphere all the way to the top! The clean and bass punch will break your experience you’ ve never felt.

Acoustic parameters	
Linear motor power	7000W continuous, peak 15000W
Peak output sound pressure level	146dB (controlled by processor); 149dB (no processor control)
Frequency response	25Hz-120Hz (controlled by processor); 20Hz-150Hz (no processor control)
Driver unit	1*32 inch M-Force linear motor drive unit
Cabinet design	Band Pass
Cabinet material	24mm birch plywood
Types of paint Finishes	Water-based paint
Physicals	
AC Power connector	PowerCON TRUE 1
Input Voltage	90V-260V AC; 50Hz/60Hz
Working Temperature	0-45 degree Celsius
Dimention	812mmx812mmx1206mm 812mmx812mmx806mm (WxHxD)
Weight	95Kg

Powersoft Zero Latency DSP	
Signal input	Analog input : Female XLR Analog output: Male XLR AES3 digital input:Female XLR
Analog input sensitivity	3.5 V / 13 dBu
Network control port	RJ45 *2
DSP Architecture	Analog Devices SHARC® / 330MHz / 2000MFLOPS
A/D Convertor	Dual 24 bit 48 kHz Tandem® architecture with 118 dBA S/N, THD < 0.02% (20 Hz - 20 kHz)
D/A Convertor	Dual 24 bit 48 kHz Tandem® architectureb with 115 dBA dynamic range, THD < 0.02% (20 Hz - 20 kHz)
Internal Processing	40 bit, floating point data allowing for optimal dynamic range and lossless processing
Amplification	
Power output	15000 Watts
Loading impedance	2 ohms
Amp Circuit type	Class D
Damping control	Active DampingControl ™
Closed-loop pressure control	Differential Pressure Control®
Driver control	Virtual Transducer®
Power supply	Universal, regulated switch mode with PFC (Power Factor Correction)



VLA

VLA-210 System

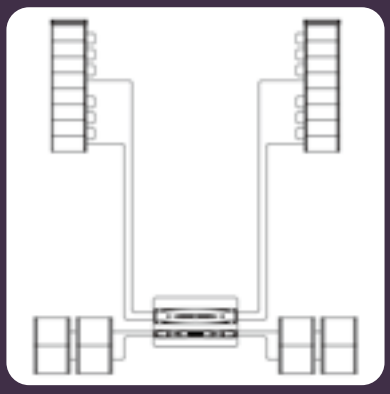
line array speaker system

Like VLA-215 Systems, VLA-210 Systems adopts the overall system design concept of acoustics and electronics, fully considers various factors such as unit characteristics, cabinet structure acoustics, electronic system performance, etc. It is a medium-sized sound reinforcement product that is close to the market and is widely used in various application scenarios.

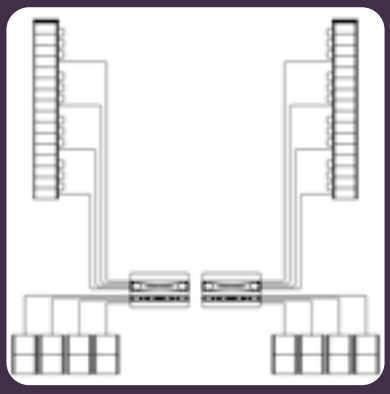
适用范围 Application

演唱会、文旅演出、剧场、体育场馆、酒店多功能厅。

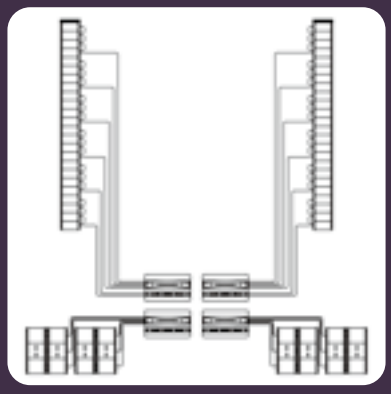
System structure collocation



Compact system：
VLA-210 x16、VLA-210Sub x8、VLA-AMP Rack x1



Medium format：
VLA-210 x32、VLA-210Sub x16、VLA-AMP Rack x2



Large format：
VLA-210 x48、VLA-210Sub x24、VLA-AMP Rack x4

Features

Compact design

By optimizing the internal structure, the VLA-210 is very compact and lightweight. The compact design brings various conveniences such as transportation, construction, and hidden installation.

Flying system

The fusion of high-strength aluminum alloy structural parts and cabinet structural hardware improves the structural strength of the cabinet, and the loading and unloading operations are very convenient, saving manpower and winning time for your performance.

Custom-made driver

The high-quality neodymium magnet units customized according to the overall design have undergone rigorous testing to ensure the reliability of the system.

VLA-210

Performance	
Frequency response	65Hz-19000Hz（+/-3dB）
Horizontal directivity	100（-6dB）
Vertical directivity	12（-6dB）
Components	LF：2X10"（75mm V.C.）Neodyminm driver HF: 1 X3"（75mm V.C.）Neodyminm driver
Power handling	LF: 2X300W(RMS), 2X1200W(PEAK) HF:1X100W(RMS), 1X400W(PEAK)
Nominal impedance	LF:2X16 Ohms HF:8 Ohms or 16 Ohms
Maximum SPL	LF: 136dB / HF: 142dB
Crossover	DSP Processing
Connector	2 of parallel NEUTRIK speakON NL4
Flying hardware	Aluminum alloy line array hanging accessories
Cabinet	15mm Birch poly-wood
Surface	Poly-urea coating
Front grill	Operforated steel mesh with powder coating
Dimension	629mmX283mmX468mm（W×H×D）
Weight	26.5kg

VLA-210SUB

Performance	
Frequency response	45Hz-500Hz(+/-3dB)
Horizontal directivity	N/A
Vertical directivity	N/A
Component	1 X 18"（100mm V.C.） Neodyminm driver
Power handling	1X1300W(RMS),5200W(PEAK)
N ominal impedance	8 Ohms
Sensitivity（1W/1m）	100dB
Maximum SPL	134dB
Crossover	DSP Processing
Connector	3 of parallel NEUTRIK speakON NL4
Flying hardware	Aluminum alloy line array hanging accessories
Cabinet	15mm Birch poly-wood
Surface	Poly-urea coating
Front grill	Operforated steel mesh with powder coating
Dimension（W×H×D）	648mmX500mmX605mm
Weight	40.5kg

VLA-221

Performance	
Frequency response	25Hz-160Hz（+/-3dB）
Horizontal directivity	NA
Vertical directivity	NA
Component	2x 21"(52mm V.C.) Neodyminm driver
Power handling	LF:2400W x 2（RMS）， 4800W x 2（Program）， 9600W x 2（Peak）
Nominal impedance	4 Ohms +4 Ohms
Sensitivity（1W/1m）	104.5dB@1M 1W
Maximum SPL	147dB
Crossover	DSP Processing
Connector	2 of parallel NEUTRIK speakON NL4
Cabinet	NV 15mm,18mm Birch poly-wood
Surface	Poly-urea coating
Front grill	Perforated steel mesh with powder
Dimension（W×H×D）	910mmX780mmX570mm
Weight	82kg

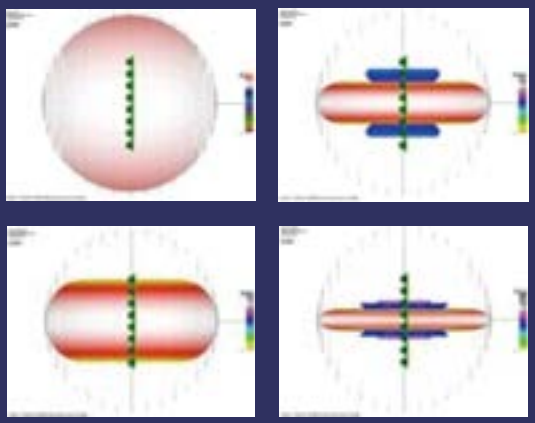
LCA Series

Line source Coulumn Array

Product overview

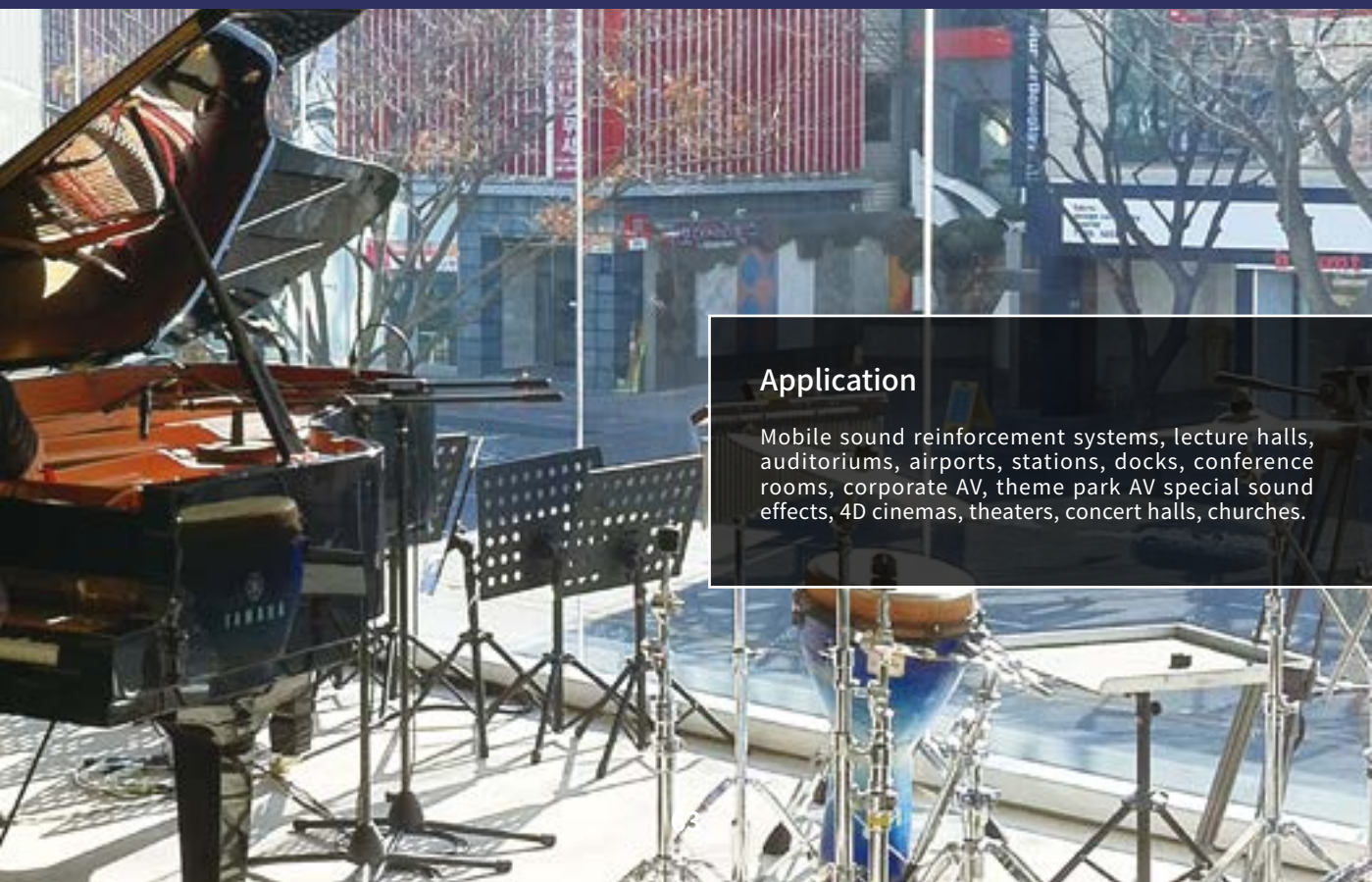
Line sound source array sound column principle

According to the theory of line sound source array, if the distance between the units is short enough, the sound between the units can be directly coupled without special structure. The distance of the elements directly affects the upper limit of the coupling frequency, while the length of the array affects the lower limit of the frequency.



Use of DSP Technology

Since the array effects of different frequencies are not the same, the original frequency response and phase response of the line sound source array sound column are not very ideal, and it is difficult to solve these problems through simple structural adjustment (mainly the distance of the speakers). ENEWAVE engineers use advanced DSP technology to solve these problems. Through the precise processing of DSP, ENEWAVE line source array column finally achieves excellent frequency response and phase consistency.



Application

Mobile sound reinforcement systems, lecture halls, auditoriums, airports, stations, docks, conference rooms, corporate AV, theme park AV special sound effects, 4D cinemas, theaters, concert halls, churches.

Speaker unit technoloty

1 ENEWAVE engineers start from the design of the speaker unit to design the line sound source array column. A small enough unit is the premise of a fullband array sound column. However, when the diaphragm of the unit is too small, it will bring a series of problems - sensitivity, power, frequency response range, etc.

2 ENEWAVE micro-units all use magnesium-aluminum alloy diaphragms, which are lighter in weight and stronger than ordinary paper diaphragms or PP plastic diaphragms. Lighter weight is beneficial to improve high frequency response, and sufficient strength is the premise of high withstand power.

3 The ENEWAVE micro-unit adopts a 1-inch magnesium-aluminum alloy skeleton and is wound with a square-section copper wire, which can withstand more than 25W of power.

4 The voice coil and diaphragm of the ENEWAVE miniature unit are made of one-piece molding technology. The diaphragm and the voice coil are completely integrated, which can quickly dissipate the heat of the voice coil through the diaphragm. Excellent heat dissipation design enables the unit to work stably at full power for a long time.

5 The ENEWAVE miniature unit introduces a magnetic short-circuit ring design, which expands the highfrequency frequency response, improves the highfrequency sensitivity, and reduces high-frequency distortion.

Structural technology

All aluminum alloy cabinet, light weight and beautiful. The surface is sandblasted and oxidized, with a fine texture and a variety of wiring accessories, which are widely used. Fully sealed design, high protection level, complete accessories, quick installation

Features

- Compact and lightweight design
- High-power small neodymium magnetic glass fiber basin full-frequency unit
- High fidelity sound quality, high sound pressure output
- Precise pointing control
- Modular array design
- Complete accessories

Lark

The Lark is a small bird with an extremely loud call. ENEWAVE Lark System has a slender and compact body, but it can emit sound pressure that is not commensurate with its body.
Lark System using the latest technology can be used for music sound reinforcement, conference sound reinforcement, bar music playback, multimedia interaction, theme parks and other occasions.

Features

- Compact and lightweight design
- 2" neodymium magnetic glass fiber cone full frequency driver
- Integrated mounting system
- Strong output capability
- Low distortion, high fidelity
- High directivity
- Broad frequency response
- Optional mounting accessories

Lark-8

Physical Parameters

Components
Cabinet principle
Driven mode
Cabinet material
Surface
Install accessories
System support
Dimension
Weight
Nominal Parameters
Frequency responsible

Sensitivity (1 Watt@ 1m)
Nominal impedance
Power capacity (AES)

Maximum SPL (1m/calculated)
Dispersion angle (-6dB)

Lark-16

Physical Parameters

Components
Cabinet principle
Driven mode
Cabinet material
Surface
Install accessories
Wall Mount Bracket LSB-1 (option)
System support
Dimension
Weight
Nominal Parameters
Frequency responsible
Sensitivity (1 Watt@ 1m)
Nominal impedance
Power capacity (AES)

Maximum SPL (1m/calculated)
Dispersion angle (-6dB)

Lark-8 + AS-12

8x 2" Neodymium magnet glass fiber cone unit
Full range line array cabinet
Passive and driven by internal amplifier of AS-12
Aluminum alloy
Oxidation treatment
Fixed pole PB-1 and extension pole EP-1
Wall Mount Bracket LSB-1 (option)
AS-12 Active sub-roofer
454mm x 68mm x 72mm (H x W x D)
1.45kg
50Hz-20KHz (+/-3dB)
125Hz-20KHz (-10dB)
92dB
8Ω
Continue 200W
Program 400W
Peak 800W
121dB Peak
100° (H), 10° (V)

Lark-16 + AS-15

16x 2" Neodymium magnet glass fiber cone unit
Full range line array cabinet
Passive and driven by internal amplifier of AS-15
Aluminum alloy
Oxidation treatment
Fixed pole PB-1 and extension pole EP-1

AS-15 Active sub-roofer
902mm x 68mm x 72mm (H x W x D)
2.85kg
150Hz-20KHz (+/-3dB)
125Hz-20KHz (-10dB)
95dB
4Ω
Continue 400W
Program 800W
Peak 1600W
127dB Peak
100° (H), 10° (V)

Shrike

Small in size, but faster than the falcon, and has a beautiful and ever-changing song. ENEWAVE's Shrike array column also has powerful output sound pressure and clear and transparent sound quality.

Features

- Compact and lightweight design
- 3.5" neodymium magnetic glass fiber conefull frequency driver
- Integrated mounting system
- Strong output capability
- Low distortion, high fidelity
- High directivity
- Optional mounting accessories
- Broad frequency response

Shrike-8

Physical Parameters

Components
Cabinet principle
Driven mode
Cabinet
Surface
Install accessories

System support
Dimension
Weight
Nominal Parameters
Frequency responsible

Sensitivity (1 Watt@ 1m)
Nominal impedance
Power capacity (AES)

Maximum SPL (1m/calculated)
Dispersion angle (-6dB)

Shrike-16

Physical Parameters

Components
Cabinet principle
Driven mode
Cabinet
Surface
Install accessories

System support
Dimension
Weight
Nominal Parameters

Frequency responsible
Sensitivity (1 Watt@ 1m)
Nominal impedance
Power capacity (AES)

Maximum SPL (1m/calculated)
Dispersion angle (-6dB)

Shrike-8 + AS-18

8x 3.5" Neodymium magnet glass fiber cone unit
Full range line array cabinet
Passive and driven by internal amplifier of AS-18
Aluminum alloy
Oxidation treatment
Fixed pole PB-1 and extension pole EP-1
Wall Mount Bracket LSB-1 (option)
AS-18 Active sub-roofer
730mm x 105mm x 108mm (H x W x D)
4kg
Nominal Parameters
98Hz-18.5KHz (+/-3dB)
90Hz-20KHz (-10dB)
94dB
8Ω
Continue 240W
Program 480W
Peak 960W
124dB Peak
100° (H), 10° (V)

Shrike-16 + AS-18

16x 3.5" Neodymium magnet glass fiber cone unit
Full range line array cabinet
Passive and driven by internal amplifier of AS-18
Aluminum alloy
Oxidation treatment
Fixed pole PB-1 and extension pole EP-1
Wall Mount Bracket LSB-1 (option)
AS-18 Active sub-roofer
1054mm x 105mm x 105mm (H x W x D)
8kg
Nominal Parameters
98Hz-18.5KHz (+/-3dB)
90Hz-20KHz (-10dB)
97dB
4/16Ω
Continue 480W
Program 960W
Peak 1920W
130dB Peak
100° (H), 10° (V)

LCA Line Column Array speaker accessories

PB-1



Features

- Light and quick assembly and disassembly
- Flexible combination, which can be used flexibly according to different installation accessories
- All aluminum alloy design, light and beautiful
- The surface is sandblasted and oxidized with afine texture

Specifications

Material -Aluminum alloy
Surface Sandblasting- qxidation treatment
Dimension-175mm X 42.5mm X 51.5mm
+ 35.5mm (L x W x D +Φ(inside diameter))

SJ-1



Features

- Light and quick assembly and disassembly
- Use with PB-1
- All aluminum alloy design, light and beautiful
- The surface is sandblasted and oxidized with a fine texture

Specifications

Material- Aluminum
Surface Sandblasting- oxidation treatment
Dimension- 35mm X 154mm +15mm M x L + L（thread length)

EP-1



Features

- Light and quick assembly anddisassembly
- Flexible combination, which can be used flexibly according to different installation accessories
- All aluminum alloy design, light and beautiful
- The surface is sandblasted andoxidized with a fine texture

Specifications

Material- Aluminum alloy
Surface Sandblasting-Oxidation treatment
Dimension 747mm + 35mm (L+Φ)

LS-1



Features

- Light and quick assembly and disassembly
- Connection between LCA cabinets
- All aluminum alloy design, light and beautiful
- The surface is sandblasted and oxidized with a fine texture

Specifications

Material- Aluminum alloy
Surface Sandblasting-Oxidation treatment
Dimension-154mm X 31.8mm X 5mm (L+W+D)

WP-1

Features

- Light and quick assembly and disassembly
- Wiring waterproof design
- All aluminum alloy design, simple and beautiful
- The surface is sandblasted and oxidized, with a fine texture

Specifications

Material- Aluminum alloy
Surface sandblasting- Oxidation treatment
Dimension- 125mm X 27mm +32.5mm (L x W + D)

SMT-45

Features

- Light and quick assembly and disassembly
- 45° elevation angle
- All aluminum alloy design, light and beautiful
- Black sandblasted oxidation treatment, delicate texture

Specifications

Material- Aluminum alloy
Surface sandblasting- Oxidation treatment
Dimension- 124mm X 42.75mm (L + H))

SP-1



Features

- Light and quick assembly and disassembly
- speakON quick docking
- All aluminum alloy design, light and beautiful
- The surface is sandblasted and oxidized, with a fine texture

Specifications

Material- Aluminum alloy
Surface sandblasting- Oxidation treatment
Dimension- 125mm X 27mm +32.5mm (L x W + D)

LSB-1



Features

- Light and quick assembly and disassembly
- LCA wall mount kit, rotatable angle
- All aluminum alloy design, light and beautiful
- The surface is sandblasted and oxidized, with a fine texture

Specifications

Material- Aluminum alloy
Surface sandblasting- Oxidation treatment

AS Series
Active System

Products Introduction

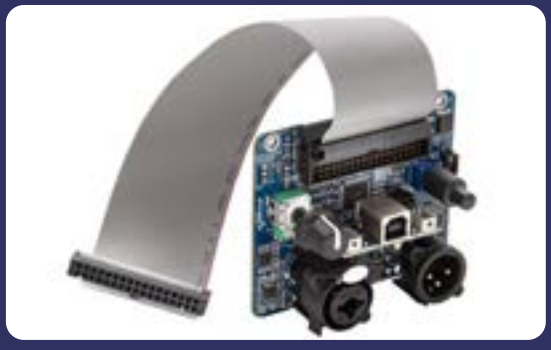
It has always been our quest to simplify the AS Series active system and improve the LCA Series and VS Series. It's not just an active speaker, it's an active system with built-in DSP with amp module output. The AS Series has built-in powerful DSP processing and an efficient digital amplifier, allowing the LCA Series and VS Series speakers to be upgraded to active systems.AS series available in 12-inch, 15-inch, and 18-inch models, it can be flexibly matched to LCA Series and VS Series speakers to meet different needs.

AS Series Features

- Lightweight, portable, Easy & Quick assembly and dismantle
- Powerful output, Max SPL 133dB
- Built-in DSP module, 4 Presets
- Powersoft Armonia software tunning & control
- Flexible combination, flexible for different venues

Technology application and features

Equipped with a powerful DSP processing circuit, it can store a variety of speaker control parameters, and a simple call can obtain excellent sound quality and accurate protection. Firmware can be managed and controlled or upgraded via Armonia software.
The ClassD digital power amplifier with built-in PFC technology has high efficiency and low heat generation, providing surging power output for the system. The perfect protection circuit ensures the safety and reliability of the system.
Above are Powersoft technologies



POWERED BY Powersoft AUDIO

DSP Performance	
Delay	Each output Up to 340 ms delay time adjustment
Input EQ	5 parametric equalizers: hi/lo-shelving, all-pass,bandpass, band-stop, hi/lo-pass
Output EQ	Parametric IIR filters: peaking, hi/lo-shelving, allpass,band-pass, band-stop, hi/lo-pass
Crossover	Butterworth, Linkwitz-Riley, Bessel:6 dB/oct to 48 dB/oct (IIR)
Limiter	Peak limiter, RMS limiter,frequency dependent RMS limiter, Clip limiter,Temperature limiter
Parameter lock protection	Support User define for setting parameters and protections.
Frequency response	20 Hz- 20 kHz(- 0.5dB)
Max input SPL	8.2 V / + 20 dBu
Max Output SPL	4.1 V / + 14.3 dBu
S/N Ratio (Analog to Analog)	>> 113d
THD+N	< 0.02%(20 Hz-20 kHz)
Dynamics (AD/DA)	118dB/114dB

Application

Mobile sound reinforcement, clubs, clubs, churches, hotels, businesses.

AS-12

- Rich combination presets
- Balanced analog input including DSP
- Full digital power amplifier processing
- Compact button controls
- Connection/Signal/Peak Indication

Physical Parameters	
Components	1x12" ferrite unit, waterproof coating.
Cabinet principle	Bass reflex built-in Class D amp. & DSP
Cabinet shape	Rectangle
Cabinet material	15/18mm Baltic birch plywood, tongue and groove joint
Surface	Water-based anti-scrach coating
Connector	1x powerCON power input 1x NL4 speaKON output 1x female XLR input 1x XLR link output
Dimension	440mm x 352mm x 500mm (H x W x D)
Weight	21kg
Nominal Parameters	
Frequency responsible	40Hz-250Hz (+/-3dB) 35Hz-500Hz (-10dB)
Power amplifier output	400W+800W
Maximum SPL (1m/ calculated)	130dB

AS-15

- Rich combination presets
- Balanced analog input including DSP
- Full digital power amplifier processing
- Compact button controls
- Connection/Signal/Peak Indication

Physical Parameters	
Components	1x15" ferrite unit, waterproof coating.
Cabinet principle	Bass reflex built-in Class D amp. & DSP
Cabinet shape	Rectangle
Cabinet material	15/18mm Baltic birch plywood, tongue and groove joint
Surface	Water-based anti-scrach coating
Connector	1x powerCON power input 1x NL4 speaKON output 1x female XLR input 1x XLR link output
Dimension	490mm x 433mm x 600mm (H x W x D)
Weight	25.2kg
Nominal Parameters	
Frequency responsible	45Hz-1KHz (+/-3dB) 40Hz-4KHz (-10dB)
Power amplifier output	400W+800W
Maximum SPL (1m/calculated)	131dB

AS-12 / AS-15 rear panel

AS-18 rear panel

AS-18

- Rich combination presets
- Balanced analog input including DSP
- Full digital power amplifier processing
- Compact button controls
- Connection/Signal/Peak Indication

Physical Parameters

Components	1x18" Neodymium cone woofer.
Cabinet principle	Bass reflex built-in Class D amp. & DSP
Cabinet shape	Rectangle
Cabinet material	15/18mm Baltic birch plywood, tongue and groove joint
Surface	Water-based anti-scrach coating
Connector	1x powerCON power input 1x NL4 speaKON output 1x female XLR input 1x XLR link output
Dimension	586mm x 500mm x 750mm (H x W x D)
Weight	47kg

Nominal Parameters

Frequency responsible	35Hz-500Hz (+/-3dB) 28Hz-2KHz (-10dB)
Power amplifier output	1000W+2000W
Maximum SPL (1m/ calculated)	133dB

音乐MUSIC

VS Series

Variable Series

The VS series, which can be your main speakers, brings you live shocks on both sides of the theater. The VS series, which can be a fill speaker, can be used as a strong backing that the main speaker cannot pass when it is far away from the stage. VS series can be your monitor speakers, bringing singers, musicians and staff realtime monitoring, accurately guaranteeing the best effect on the scene.

SW Series

Subwoofer Series

The all-round SW series is designed for all ENEWAVE full-range speakers. Through ENEWAVE's leading DSP control technology, the SW series can be matched with HLA, VLA, VS, LCA and other full-range series to extend the low frequency to 28Hz! Make the system get richer and more powerful sound!

MS-15C Mobile system

This is a large multi-purpose loudspeaker with two frequencies in a coaxial design. Its versatile design makes it an all-around speaker. Combining high output with classic reproduction of natural sound, it is suitable for a variety of portable and permanent installation applications. The asymmetrical housing design provides the typical angle required for wall mounting and stage monitoring. For permanent fixed installation, the cabinet shell provides multiple 10mm hanging points, and at the same time provides a standard bracket jack at the bottom of the speaker, which is more convenient and portable. M S-15C is ENEWAVE's top high-performance multi-purpose speaker. The coaxial output design makes its cabinet design more compact and lightweight.

Application

Mobile, offices, conference rooms, hotels, resorts, restaurants, bars, conference centers, department stores, clubs, offices, schools, theme parks, museums, exhibition halls, airports, stations, docks, etc.

VS Series

Variable Series

Speaker Jack

VS series, can be your main speakers, theater brings you live on both sides of the shock

VS series, it can be repair voice box, far from the stage of making speakers that cannot be delivered strong backing;

VS series, can be your back listening to speakers, brings singers,Musicians and staff monitor in real time, accurate and guaranteed best results;

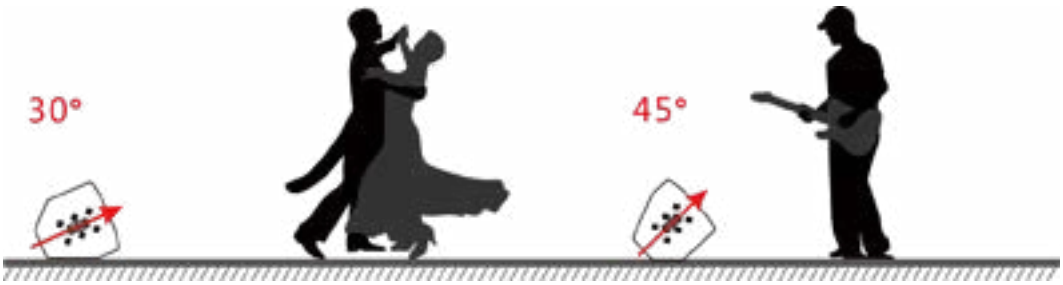
Product overview

Multi-angle design

VS series speaker was designed by Enewave RD team for a variety of different applications,fully considered application for Sound reinforcement,side-fill,stage monitor, touring sound, fixed installation. application.

2-way design

VS series speakers are made of 2-way design, built-in passive crossover circuit, single amplifier can drive. Box uses the high strength of the "Baltic Sea Birch plywood "Groove connection technology. Surface adopt the multilayer WATERBASE paints, sturdy, durable, environmentally friendly. Overall compact design, compact. High quality high power speaker unit, even within the small box, also has a strong sound pressure output.



Two different degree stage monitor setup

Easy installation

Flying track hardware and eye bolt screw hole on top, side and back ofspeaker (except VS8), the screw hole deeper then 25mm for most installapplication, pole stand hole on full line speaker bottom, quick install and dismantal, flexable application.

Rotatable Speaker

VS8, VS10 speaker high-frequency horn rotatable 90 degrees to change the coverage angle, no matter speaker installed horizontally or vertically.

VS-8

Performance	
Frequency response	76Hz-18kHz（+ /-3dB） 58Hz-20kHz（-10dB）
Power capacity (AES)	200W (continue)， 400W (program)， 800W (peak)
Recommend amp. power	300-400W
Nominal impedance	8 Ohms
Sensitivity	95dB，1W @ 1m（3.3ft）
Max. SPL	124dB（peak）
Nominal coverage	90° x 60°
Component	
MF	1 X 8" neodymium with waterproof coating
HF	1 X 1.75" neodymium compression driver
Physical parameter	
Type	2 ways full range built-in crossover netwok
Cabinet	Baltic birch plywood, environmentally friendly water-based paint
Connector	2 x NL4 Speakon
Dimension	443mm x 249mm x 234mm (HxWxD)
Weight	12.6kg

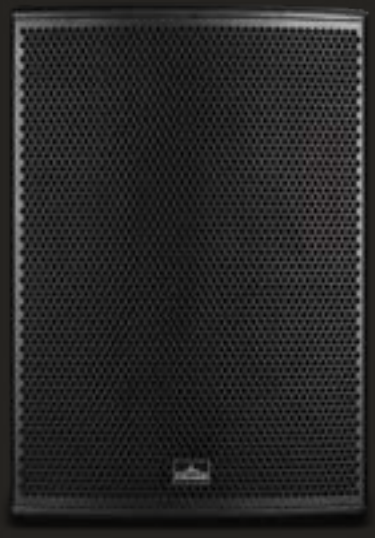
VS-10

Performance	
Frequency response	70Hz-18kHz（+ /-3dB） 55Hz-20kHz（-10dB）
Power capacity (AES)	300W (continue)， 600W (program)， 1200W (peak)
Recommend amplifier power	400-600W
Nominal impedance	8 Ohms
Sensitivity	96dB，1W @ 1m（3.3ft）
Max. SPL	127dB（peak）
Nominal coverage	90° x 60°
Component	1 X 10" neodymium with waterproof coating 1 X 1.75" neodymium compression driver
Physical parameter	
Type	2 ways full range built-in crossover netwokr，
Cabinet	Baltic birch plywood, environmentally friendly waterbased paint
Connector	2 x NL4 Speakon
Dimension	501mm x297mm x 300mm (HxWxD)
Weight	18.2kg

VS-12

Performance	
Frequency response	76Hz-18kHz（+ /-3dB） 58Hz-20kHz（-10dB）
Power capacity (AES)	200W (continue)， 400W (program)， 800W (peak)
Recommend amplifier power	300-400W
Nominal impedance	8 Ohms
Sensitivity	95dB，1W @ 1m（3.3ft）
Max. SPL	124dB（peak）
Nominal coverage	90° x 60°
Component	1 X 8" neodymium driver with waterproof coating 1 X 1.75" neodymium compression driver
Physical parameter	
Type	2 ways full range built-in passive crossover network
Cabinet	Baltic birch plywood, environmentally friendly water-based paint
Connector	2 x NL4 speakON
Dimension	443mm x 249mm x 234mm (HxWxD)
Weight	12.6kg

VS-15



Performance	
Frequency response	76Hz-18kHz（+ /-3dB） 58Hz-20kHz（-10dB）
Power capacity (AES)	200W (continue)， 400W (program)， 800W (peak)
Recommend amplifier power	300-400W
Nominal impedance	8 Ohms
Sensitivity	95dB，1W @ 1m（3.3ft）
Max. SPL	124dB（peak）
Nominal coverage	90° x 60°
Component	1 X 8" neodymium driver with waterproof coating 1 X 1.75" neodymium compression driver
Physical parameter	
Type	2 ways full range built-in passive crossover network
Cabinet	Baltic birch plywood, environmentally friendly water-based paint
Connector	2 x NL4 speakON
Dimension	443mm x 249mm x 234mm (HxWxD)
Weight	12.6kg

SW Series

Subwoofer Series

The SW series is designed for combination with all ENEWAVE fullrange speakers models. With ENEWAVE's leading DSP control technology, the SW series can be matched with HLA, VLA, VS, LCA and other full-range series to extend the low frequency to 28Hz! Make the system more sub-low output and shocking!

Product Introduction

The SW-218II and SW-118II use bass-reflex speaker design, we use computer software to predict and analyze the cabinet resonance, and enhance the structure to reduce these resonances, making the bass produce clean sound, without cabinet resonance sound. The optimized cavity design makes the speaker more compact. The long-stroke high-power driver unit is combined with advanced DSP control technology to effectively control the problem of overload distortion caused by high power. The SW-218II and SW-118II can be recall the presets parameters of the DSP processor can be matched with HLA, VLA, VS, LCA and other full-range frequence loudspeaker series, setting to match with other model’ s full range loudspeaker are simple and fast. The cabinet is made of high-strength "Baltic birch plywood", which is made of sturdy and durable.
The cabinet is designed with stacking fixing slots for easy stacking and installation without worrying about vibrations causing slippage. The sides of the speaker are designed with carrying handles, and the mounting holes of the pulleys are reserved on the back of the speaker for easy handling and movement. The surface treatment uses multi-layer environmentally friendly water-based paint, which is sturdy, durable and environmentally friendly. There is also a version suitable for hanging installation. Clean sound, powerful and compact, the SW series of subwoofers make your sound full of power!

Product Features

- Low distortion, high SPL output.
- Optimized speaker driver design, high SPL outputcapacity and good heat dissipation.
- Baltic Birch plywood, environmentally friendlywaterborne paint.
- Stack design.
- DSP processing control.

Application

It can be matched with ENEWAVE's VS series, HLA series, VLA-208 series, LCA series, etc., as an extension or supplement of low frequency.

SW-218II

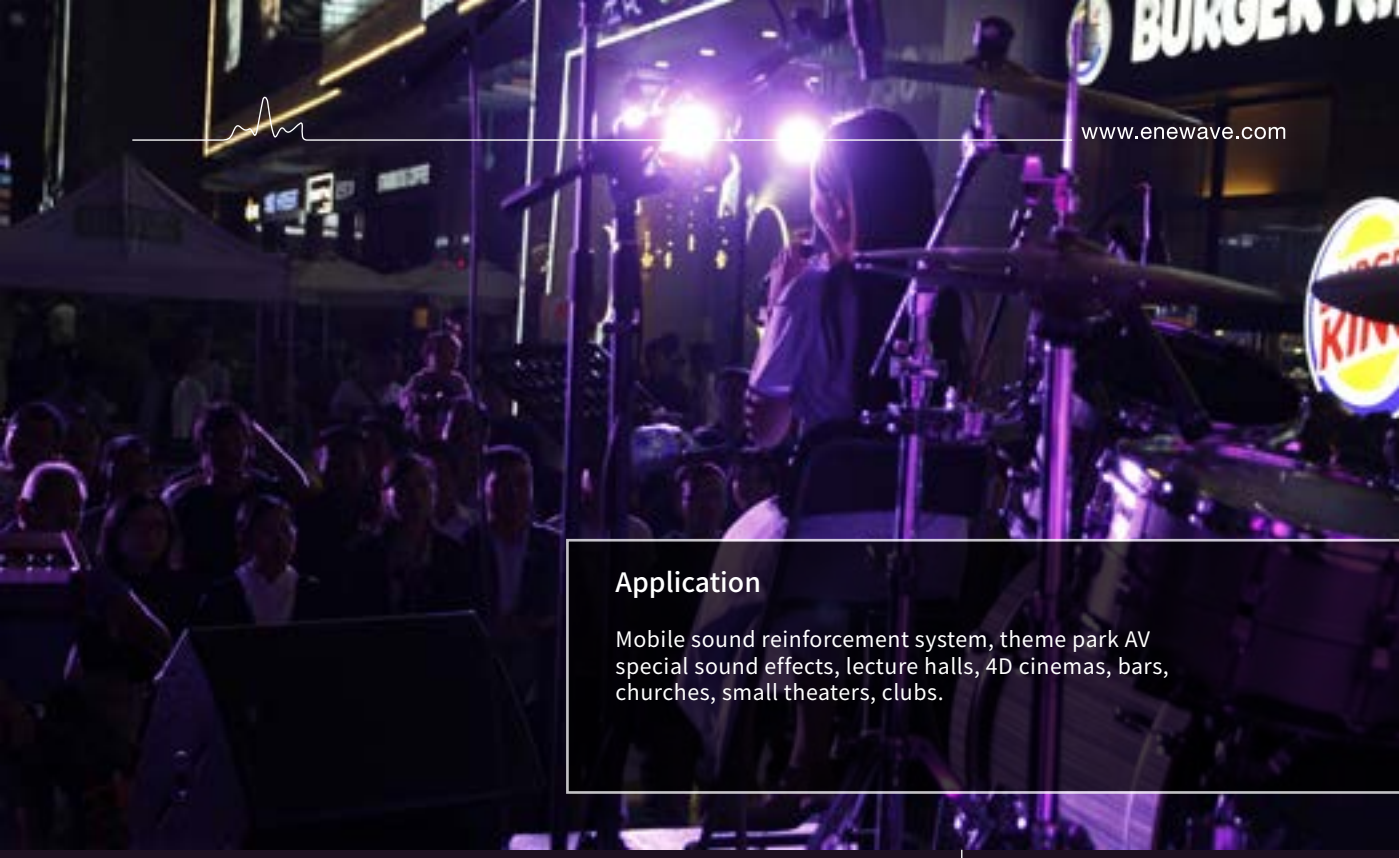
Performance	
Frequency response	35Hz-500Hz（+/-3dB） 28Hz-2kHz（-10dB）
Power capacity (AES)	2000W（continue）， 4000W（program）， 8000W（peak）
Recommend amplifier power	3600-5000W
Nominal impedance	4 Ohms
Sensitivity	99dB，1W @ 1m（3.3ft）
Max. SPL	138dB（peak）
Nominal coverage	N/A
Component	2 x 18" paper cone driver with waterproof coating
Physical parameter	
Type	Bass reflex
Cabinet	Baltic birch plywood, environmentally friendly water-based paint
Connector	2 x NL4 speakON
Dimension	560mm x 1066mm x 780mm (HxWxD)
Weight	87kg

SW-118II

Performance	
Frequency response	35Hz-500Hz（+/-3dB） 28Hz-2kHz（-10dB）
Power capacity (AES)	1000W（continue）， 2000W（program）， 4000W（peak）
Recommend amplifier power	1800-2500W
Nominal impedance	8 Ohms
Sensitivity	99dB，1W @ 1m（3.3ft）
Max. SPL	135dB（PEAK）
Nominal coverage	N/A
Component	1 x 18" paper cone driver with waterproof coating
Physical parameter	
Type	Bass reflex
Cabinet	Baltic birch plywood, environmentally friendly waterbased paint
Connector	2 x NL4 speakON
Dimension	690mm x 561mm x 595mm (HxWxD)
Weight	45kg

MS-15C
Mobile system

This is a large multi-purpose loudspeaker with two frequencies in a coaxial design. Its versatile design makes it an all-around speaker. Combining high output with classic reproduction of natural sound, it is suitable for a variety of portable and permanent installation applications. The asymmetrical housing design provides the typical angle required for wall mounting and stage monitoring. For permanent fixed installation, the cabinet shell provides multiple 10mm hanging points, and at the same time provides a standard bracket jack at the bottom of the speaker, which is more convenient and portable. M S-15C is ENEWAVE's top high-performance multipurpose speaker. The coaxial output design makes its cabinet design more compact and lightweight.



Application

Mobile sound reinforcement system, theme park AV special sound effects, lecture halls, 4D cinemas, bars, churches, small theaters, clubs.

Features

- Compact and lightweight design
- Compact design for all professional application needs
- High frequency compression driver and cone woofer system
- Strong output capability
- Asymmetrical polygonal design provides multiple mounting angles
- The box provides standard bracket mounting holes
- Built-in frequency division circuit, providing the most economical driving method

Nominal Parameters	
Frequency responsible	50Hz-17KHz (+/-3dB) 43Hz-20KHz (-10dB)
Sensitivity (@1Watt/1m)	99dB
Nominal impedance	8 ohms
Power capacity (AES)	Continue 500w Program 1000w Peak 2000w
Maximum SPL (1m/ calculated)	132dB
Vertical dispersion angle (-6dB)	60°
Horizontal dispersion angle (-6dB)	60°
Physical Parameters	
Components	15 woofer with water-proof coating 3” High frequency compression driver with 1.4” throat
Cabinet principle	2 ways cabinet with passive network
Driven mode	Passive and driven by external amplifier
Cabinet shape	Multilateral Cuboid
Cabinet material	Baltic birch plywood
Surface	Environmentally friendly water-based paint
Connector	2x NL4 Speakon
Install accessories	10mm bolt hanging point, flight buckles &13/8” socket at the bottom
Recommend sub-woofer	SW-118II or SW-218II
Dimension	580mm x 447mm x 395mm (H x W x D)
Weight	24.95kg

SYSTEM MANAGEMENT for

Line-array systems, Line-column combo systems

AAC-48L

Acoustic Auto Calibrator

AAC is designed to enhance the clarity of the sound image and restore the transparency of the sound to optimize your acoustic environment. The system provides a variety of interfaces, with exquisite design and simple use, which can meet the sound field measurement and calibration requirements of various listening environments such as small conference rooms, lecture halls, large theaters, auditoriums and large-scale live performances. High-resolution high-frequency performance and more powerful bass.

Galaxy

Mars 1608AEC
1608
8016

Mars has flexible port configuration, and can expand the number of ports in the system through Dante network audio card, the maximum single machine can achieve 32X32 matrix capability.The powerful floating-point DSP computing power reaches 2400 MFLOPs, so Mars has powerful processing power and can handle all kinds of complex processing. Among them, the Mars1608AEC model integrates advanced algorithms such as AEC, ANC, AGC, and AFC specially designed for video conferencing, making the sound Get clear, clean and make your video conferencing experience like never before!

SYSTEM MANAGEMENT for

Line-array systems, Line-column combo systems

Galaxy

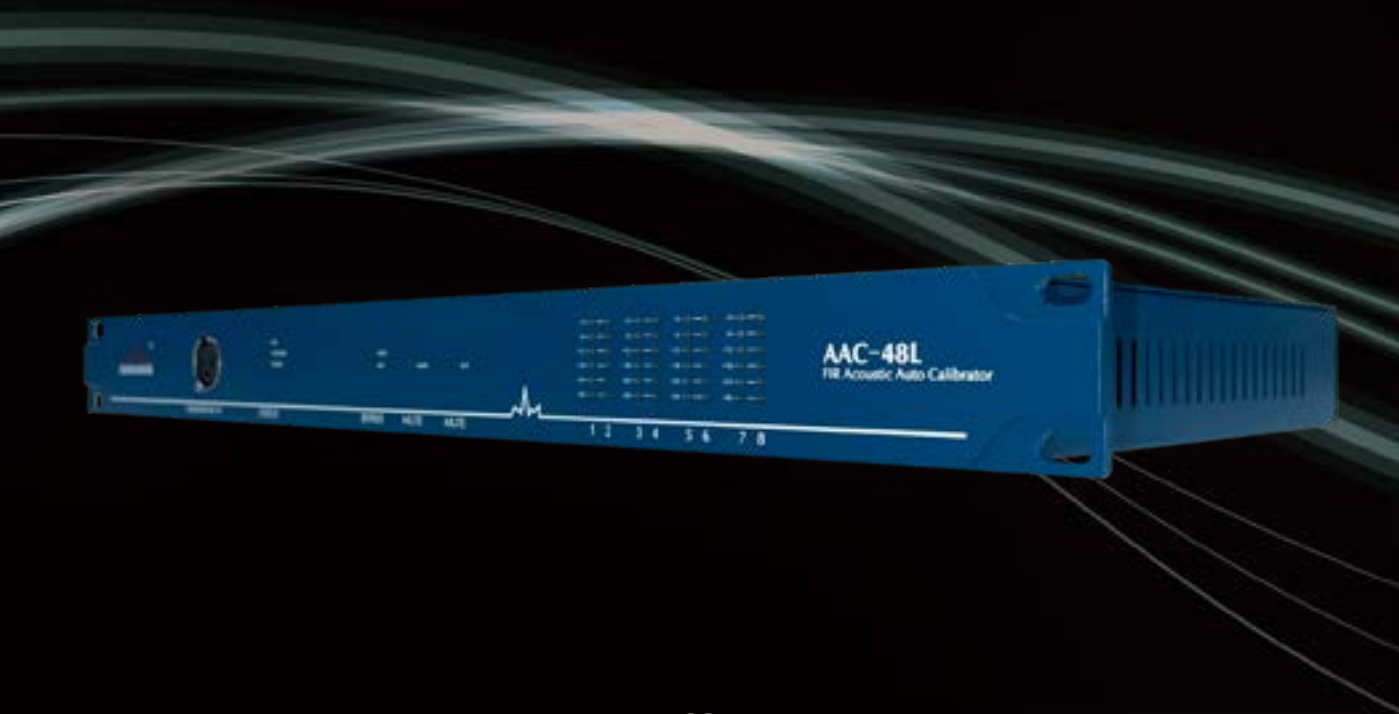
Venus 1680
8016
808

Venus has flexible port configuration, and can expand the number of ports of the system through Dante network audio card, the maximum single machine can achieve 32X32 matrix capability.The powerful floating-point DSP computing power reaches 2400 MFLOPs, so the Venus processor has powerful processing power and can meet various complex processing, whether it is the integration of complex AV systems or sound reinforcement systems with extremely high sound quality requirements.

AAC-48L

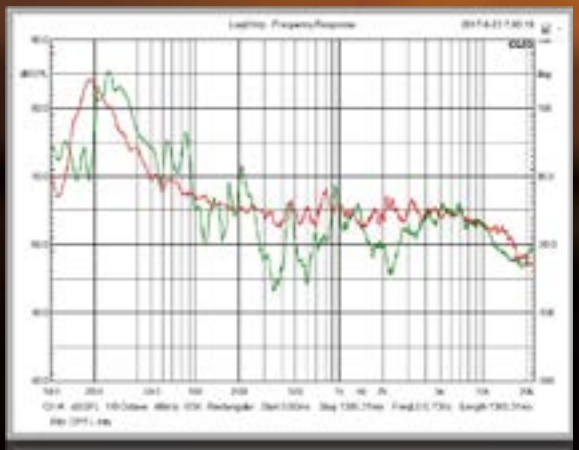
Acoustic Auto Calibrator

The first automatic calibrator for spatial acoustics that combines spatial acoustics and electroacoustic systems. It can optimize your acoustic environment, calibrate the frequency response of the audio system and acoustic space, perfectly reveal some sound details, and create an ideal acoustic space for you. The high-order real-time FIR acoustic phase calibration system based on FPGA breaks the constraints between digital audio algorithm technology and delay, and perfectly reproduces the essence of sound through three-dimensional standards of sampling accuracy, sampling frequency and phase accuracy.
AAC is designed to enhance the clarity of the sound image and restore the transparency of the sound to optimize your acoustic environment. The system provides a variety of interfaces, with exquisite design and simple use, which can meet the sound field measurement and calibration requirements of various listening environments such as small conference rooms, lecture halls, large theaters, auditoriums and large-scale live performances. High-resolution high-frequency performance and more powerful bass.



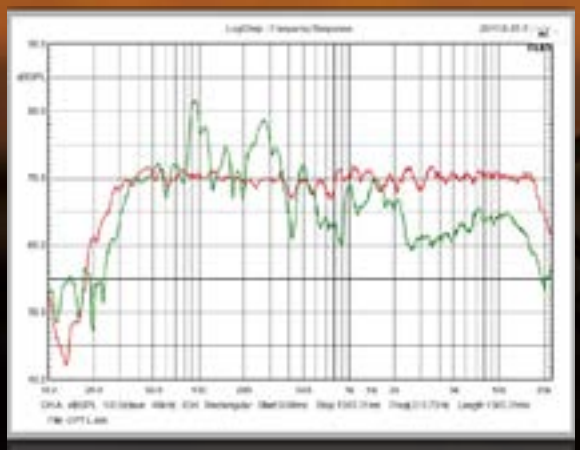
Maximum number of steps

It can be configured as a 4X4096-steps FIR filter, which can realize phase and frequency control of the full frequency band of 12Hz~20KHz, and has strong calibration ability.



Phase map comparison before and after processing

From 50Hz, the phase delay is reduced to within 36 degrees, and the phase difference between the high and low frequencies does not exceed 20 degrees, making the speaker a minimum phase system in any space.

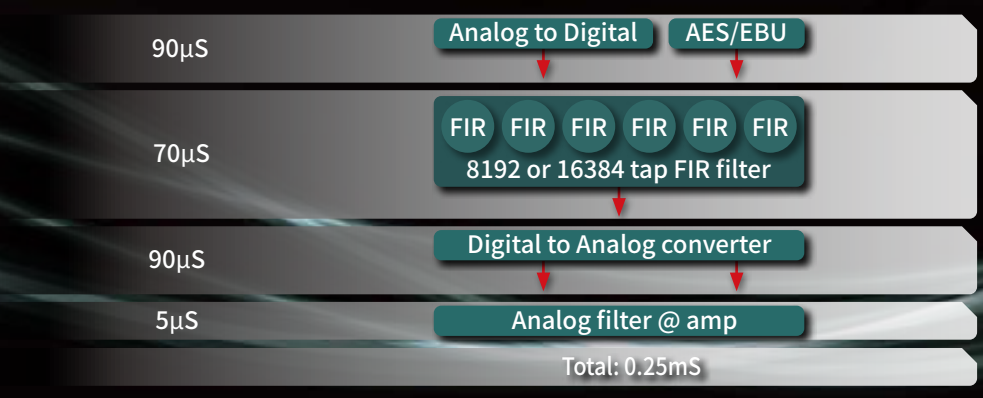


Comparison of frequency response diagrams before and after processing

Due to the resolution of the speaker box resonance, the phase change caused by the crossover 400Hz; 2.8Khz), and the reflection problem in the room (93Hz, 270hz), the original appearance of the speaker in the free sound field frequency response is restored.

Shortest latency

FIR filters are characterized by linear phase, adapting to the unique needs of audio—that is, changing the frequency domain without a phase change. However, due to the serial characteristics of DSP, the delay time of FIR filters above 10,000 orders is too long to adapt to the real-time performance required by audio, and the newly added delay brings new phase problems, so high-order FIR filters Due to DSP performance problems, it can only stay in the theoretical stage. Even due to the complexity of processing algorithm coefficients, some manufacturers use the CPU of the PC to calculate the coefficients and perform FIR processing, which will cause greater system delay. Therefore, for the first time, we introduce the parallel processing of high-performance FPGA to perform parallel processing of high-order FIR, which achieves low-latency performance and ensures that the filter operation does not bring new phase delays.



Fastest calibration

The unique algorithm of the AAC system requires only one point in a room or multiple points in a large space to make a microphone measurement, taking only three seconds per measurement point, with great tolerance for noise in the space, and then passing The algorithm analyzes the phase and frequency response problems existing in the system, and automatically generates the FIR processing parameters and writes them into the FPGA chip.

Application

Concert hall, music restaurant/Club, live sound reinforcement, theater/theater, multi-purpose hall, conference room, lecture hall

AAC-48L

Features

- Multi-device synchronization
- High dynamic output
- Built-in detection microphone input interface
- Support multi-point measurement average
- Freely design acoustic spatial frequency response
- Automatically calibrate the phase
- Compatible with simultaneous two-channel parallel high-order FIR filterprocessing
- Ability to display frequency response, impulse, phase curves in anacoustic environment
- Reflection cancellation processing tool that does not change the soundquality of the original speaker
- Time processing tool that can concentrate direct sound
- Flexible matrix output options
- Each output has sample-level accurate delay and amplitude control

Specification

- FPGA processing architecture
- 4 x 4096 order FIR filters
- Supports 44.1, 48, 88.2, 96, 192 (kHz) sample rates
- One-way AUX output
- Analog input: 2 x XLR (left and right channels),+24dBu max
- Analog outputs: 6x XLR (left and right channels; bass,Aux channels,+24dBu max
- Digital Input: 1 x AES/EBU@75 Ohms
- Word clock input: 1x Input@75Ohms 3Vpp onBNC32-192kHz
- Digital clock output: 1x Output@75Ohms 3Vpp on BNC32-192kHz
- A/D Converter: Dynamic Range 120dB THD+N: -107dB
- D/A Converter: Dynamic Range 120dB THD+N: -110dB
- Total system delay: 0.25ms

The brand-new design Galaxy system is the Enewave technology team's newest offer.The Galaxy system is a set of complete digital audio frequency system, including Galaxy the Designer systems control software, the digital audio frequency broadcast server, the digital audio frequency processor, the digital transmission, the digital merit puts, the active sound box and so on, future will be able to promote video frequency processing, AV records and broadcasts, controls and so on theequipment, will realize the AV system seamless conformity!
The brand-new Galaxy system will operate the software, the controlling agreement, the transmission mode completely unifies, causes the system the structure greatly will be the simplification, all transmissions all through sole network platform realization, all it's that simple!


ENEWAVE®
www.enewave.com
Professional
Digital Processor
We build successful digital stories.
We will help you grow your idea into a profitable business.

Speed message processing

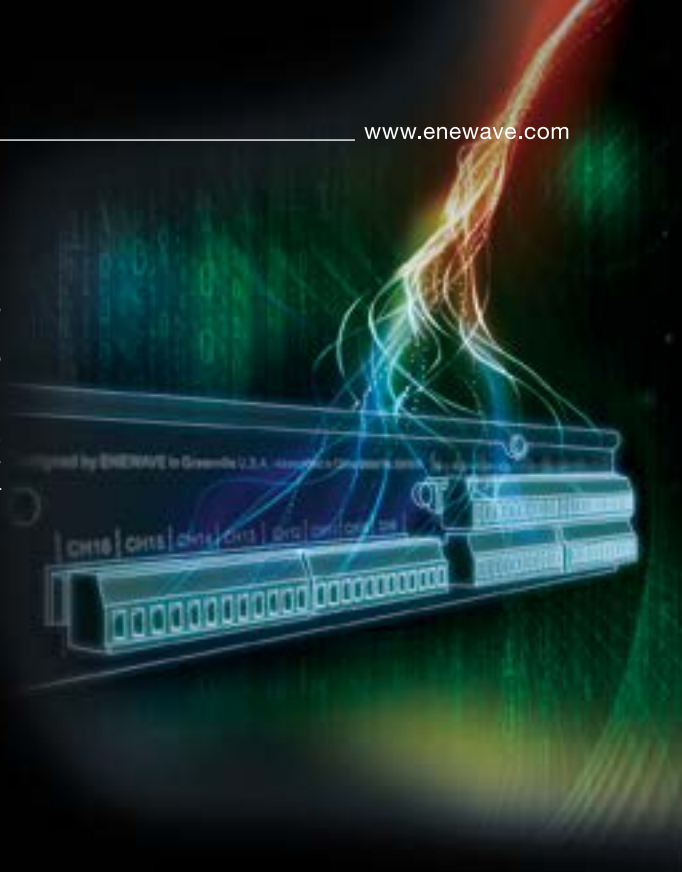
The ENEWAVE technical team has not stopped pursuing system speed and performance.
The Galaxy digital audio processor uses ADI's thirdgeneration Sharc high-speed floating-point DSP chip with an enhanced SIMD architecture that extends CPU performance to 400 MHz / 2400 MFLOP, and the processing power of the new Galaxy digital audio processor Incorporating complex algorithms such as AEC, ANC, AGC, AFC, etc., can complete more processing tasks and support more channels.
The control and signal transmission of the device all adopt 1000M Ethernet, the speed of information interaction is increased to the highest level at present, and the state feedback such as shorter signal transmission delay and instantaneous change level is approaching real-time.

Simple

Galaxy of highly intelligent system control is very simple, through the senses testing, the system can adjust the parameters to achieve automatic control.
Users can also use the Galaxy system full control through PC Designer software, you can use the touchscreen, tablet or smart phone, dedicated Control Panel for system control, improve the level of user management and authentication is a system of security assurances.
As the system has introduced new products in the future can also control and manage video equipment, lighting equipment, environmental equipment, and so on.

Flexible scalability

The Galaxy processor is available in a variety of sizes and is available in a variety of analog inputs and outputs that can be selected for different channel usage requirements. Galaxy processors all have an expansion slot function. By installing a Dante network transmission card, you can expand the 16in / 16out digital audio transmission channel to expand the channel capacity and processing power of the system through bus or cascade.

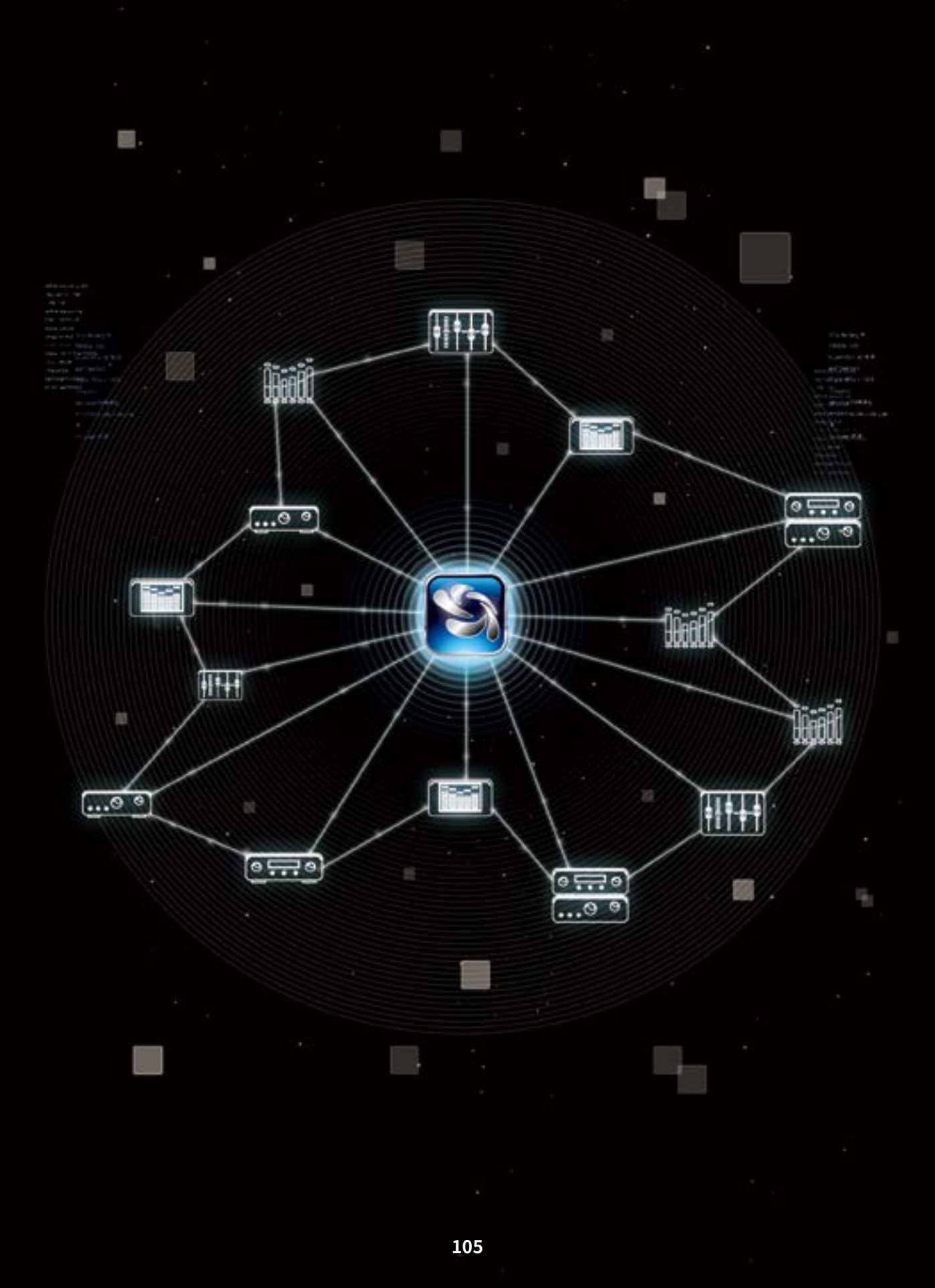


Dante™

Breakthrough design

Relying on the powerful processing power of the Sharc chip, the Galaxy family of processors has implanted more new algorithms such as AEC (auto echo cancellation, AEC for dual or multi-place video conferencing echo cancellation applications., ANC (acoustic noise cancellation), AGC (Automatic Gain Control), AFC for sound feedback control applications. Algorithms such as AFC(automatic feedback controller), ALC (automatic level control), AmNC (environmental noise compensation) algorithms for background music, integrated professional speakers Processor, etc.
The Galaxy series processor introduces a logic processing algorithm. Users can build various logic processing models in the system to associate audio processing with logic control and realize artificial intelligence control of audio processing.

Galaxy designer, the galaxy system core management software, through the network management port on your PC the galaxy system for all of your devices, using a simple drag-and-drop wiring on quickly establishes the link system device logic, build Processors DSP processes, set the device parameters, monitoring the status of the device, the operation of the control system



Mars

1608 AEC

1608

8016

Extraordinary fixed-architectural digital audio processor, through the website, user/ customers can easily obtain design solutions for various applications (including list, system diagram, reference construction drawing, description, etc.), DSP process file, general management control file- for example (AMX , Crestron), upload the relevant files to the processor, whether you are a designer, an engineer, or a user, everything is hand-to-hand for you!

Mars has a flexible port configuration and can expand the number of ports in the system through the Dante network audio card. The largest single device can achieve 32X32 matrix capability.

The powerful floating-point DSP operation capability reaches 2400 MFLOP, so Mars has powerful processing capability and can handle various complicated processing. The Mars1608AEC model integrates advanced algorithms such as AEC, ANC, AGC and AFC for video conferencing to make sound quality clear and better, and make your video conference experience like never before!

Mars system application:

Video conference room, Conference room, Lecture hall, Classroom. Hotel, Banquet hall, Restaurant, BAR and Club, Theme park, Exhibition, Museum, Audiotorium, Theater, Concert hall….

Mars 1608

Mars 1608AEC

Mars 8016

Features

- Series model:

Mars 1608AEC / Mars 1608 / Mars 8016

- microphone/line input, 65dB analog input adjustment range, Supports 48V Phantom power.
- 16in/8out analog audio output interface (Mars 1608AEC/Mars 1608);
- 8-in / 16-out analog audio output connectors (Mars 8016);
- 16-in/16-out digital expansion slot (expandable Dante interface);
- 4-in and 2-out GPIO
- RJ45 network interface
- DSP process files can be updated.
- Support AEC、ANE、AFC、AGC and AmNC functions. (AEC、ANC only limited to Mars1608AEC);
- Galaxy Designer system control software, support for multiple device control
- Supports the G Series Control panel or a touch screen, android system support application control.

Technical parameters

Digital Section:

DSP chips: ADI Sharc 40-bit floating-point processors ADC/
DAC Converter: high dynamic 48kHz,24Bit chip
DSP architecture: open, replacing process files
DSP algorithms: includes all common devices and partspecific device, some speaker processor

Analog Section:

Input Sensitivity: >10kΩ
Output Impedance: 50Ω
Maximum Input level: +20dBu / MIC, +40dBu / Line, balanced inputs
Phantom Power: 48V, software controlled switch
Freq Response: 20-30000Hz (+ / - 0.1dB)
Dynamic Range: 112dB typical (unweighted)
CMRR: >100dB (50 - 10kHz)
Crosstalk: < -100dB
Distortion: 0.001% (1kHz @+4dBu)

Interface:

Signal input and output: 3.5mm Phoenix connector
GPIO
connector: 3.5mm Phoenix connector
Ethernet connector: RJ45
Power: standard IEC connector
Physical parameters:
Working voltage: AC 200-240V(50-60Hz)
Chassis dimensions: 483x44x229mm
Weight: 5kg

Venus

1608
8016
808

The ultimate editable process processor, with simple device drag and drop, to establish the DSP processing flow you need, let you do whatever you want, let your ideas go, and realize what you want! It is also possible to build various special functions you need through various logic algorithms. Flexibility is the soul of the Venus processor!

Venus has a flexible port configuration and can expand the number of ports in the system through the Dante network audio card. The largest single machine can achieve 32X32 matrix capability.

The powerful floating-point DSP computing power reaches 2400 MFLOP, so the Venus processor has powerful processing capabilities to meet a variety of complex processing, whether it is a complex AV system integration or a sound system with extremely high sound quality.

Venus Application

1 Hotels, banquet halls, restaurants, bars
2 Theme parks, playgrounds, exhibitions
3 Science and Technology Museum, exhibition halls, museums
4 Chapel, Auditorium, conference room and multi-function Hall
5 Railway stations, wharves, airports, transport hubs
6 Theatre, theatres, concert halls
7 Stadium, gymnasium, swimming pool
8 Concerts, tours, equipment rental

Venus 1608

Venus 8016

Venus 808

Features

- Series model: Venus 1608 / Venus 8016 / Venus 808
- Software select the microphone/line input, 65dBanalog input adjustment range, Supports 48Vphantom power.
- 16in/8out analog audio output connectors (Venus 1608);
- 8in / 16out analog audio output connectors (Venus 8016);
- 8in / 8out analog audio output connectors (Venus 808);
- 16 in/16 out digital expansion slot (expandable Dante connector);
- 4 - in and 2-out GPIO
- RJ45 network control connector
- Flexible drag-and-drop DSP Design Process
- Galaxy Designer system control software supports for multiple device control
- Support the g series Control Panel or touch screen Panel, supported Android application control.

Technical parameters

Digital Section

DSP chips: ADI Sharc 40-bit floating-point processors
ADC/DAC Converter: high dynamic 48kHz,24Bit chip
DSP architecture: open, drag and drop Programming DSP
Algorithm: includes all common devices and part-specific device, some speaker processor

Analog Section:

Input sensitivity: >10kΩ
Output impedance: 50Ω
Maximum input level: +20dBu / MIC, +40dBu / Line,balanced inputs
Phantom power: 48V, software controlled switch
Frequency response: 20-30000Hz (+/-0.1dB)
Dynamic range: 112dB typical (unweighted)
Common mode rejection ratio: >100dB (50-10kHz)
crosstalk: < -100dB
distortion: 0.001% (1kHz @+4dBu)

Connector:

Signal input and output: 3.5mm Phoenix connector
GPIO connector: 3.5mm Phoenix connector
Ethernet connector: RJ45
Power: standard IEC connector

Physical parameters:

Working voltage: AC 200-240V(50-60Hz)
Chassis dimensions: 483x44x229mm
Weight: 5kg

Dante AmNC AEC ANC AGC FIR Filter 2400 MFLOP ALC AFC 8 8 8 16 16 16

G Panel Control Panel

The Galaxy system control panel, including the wall panel and touch screen. All G Panel function may through Galaxy the Designer software setup. G Panel APP (Android system) may controls the Galaxy system through the intelligent mobile phone or the pad. G Panel through the ethernet and the processor connection, and may through the PoE ethernet power supply, the wiring and the installment is extremely simple.

G Panel 70T

Features
Android operating system
By Galaxy Designer assigning control functionsall controls in a control DSP processes, PoE power supply or external power adapter
Supports multilingual display
PoE power supply or external power adapter parameters
Supports wall or desktop setup

Parameters
Screen: 7 inch a 5-point touch capacitive touch screen
Resolution: 800x480 widescreen
Operating system: Android 4.0
Connector: RJ-45 x1
Power supply: PoE power supply or DC 5V
Dimensions: 240 x 125 x 35mm

CP-4S1V

Features
By Galaxy Designer assigning control functions all controls in a control DSP processes, PoE power supply or external power adapter
PoE power supply or external power adapter parameters

Parameters
4 push button and 1 knob can be assign functions
connector:RJ-45 x1
Power supply: PoE power supply or DC 5V
Dimensions:115 x 115mm

ANDROID APP ON Google play

GP-Apps

Application software for Android phone or tablet, implementation is similar to the same functionality as G Panel 70T.

EX16-D Dante expansion card

EX16-D expansion card can be installed in the Galaxy in the processor, processor increases 16 channel Dante network audio transmission capability through networking extends the processing capacity of the system and the number of channels.

Dante digital audio transmission technology is based on the layer 3 IP network technology for point-to-point audio connection provides a low latency, high precision and low cost solution. Dante in Ethernet technology can (100M or 1000M), transmits high-precision clock signal, as well as professional and complex routing of audio signals. Compared with traditional audio transmission technology, it inherits all the advantages of CobraNet and EtherSound, such as uncompressed digital audio signal to ensure a good sound effect; solve complicated wiring problems in the traditional audio transmission, reducing the cost to accommodate existing networks, without special configuration; audio signals in a network, with a "tag" in the form of annotated.

EX16-D Dante expansion card

Features

All applicable Galaxy series processors
Dante format standard bidirectional 16-channel digital audio
transmission
Double-network redundancy
Support audio signals unicast or multicast
IEEE588 precision clock agreement clock synchronization
zeroconf (Zero Configuration Networking) zero disposition networking
Network equipment high compatibility
System network self-recovery function

Parameters

Channel number: 16in / 16out(@48kHz); 8in / 8out(@96kHz)
Sampling: 48kHz / 24Bit, supporting 96kHz / 24Bit
Transmission time delay:0.15 ms /0.5 ms/ 1.0 ms/ 5.0 ms selectable
Network: two 1000M(1000Mbps)Ethernet RJ45 connectors

POWER AMPLIFIER

DA Series

DA 650.4
1000.4
2000.4
3000.2

The power supplies of the DA series adopt advanced SMPS circuit and APFC design to provide a wide power supply range and extremely high efficiency. The power factor of the APFC power supply circuit is high 0.99, we have accomplished the soft switching of zero voltage and zero current, making the SMPS circuit operate more stably and have a high efficiency mode. SMPS technology, designed for world tours and tested with voltages (50Hz or 60Hz) worldwide. Based on this technology, our products provide a true green power supply with low harmonics, high efficiency and high power factor.

CA Series

CA 350II
900II
1600II
8150II

CA series power amplifiers are classic analog power amplifiers, adopting class AB or class H circuit design, mature and stable, used in various harsh environments, and can achieve trouble-free operation. Available in a variety of configurations, power stages, and features to meet the needs of nearly any commercial application. This includes the comprehensive protection circuitry typically found in a large number of CA power amplifiers. Provides full protection against high temperature environments, audio limiter, turn-on delay and peak current limiter. Phoenix-type connectors for input and output allow for easy rack wiring.

ENEWAVE®
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Professional
Power Amplifier

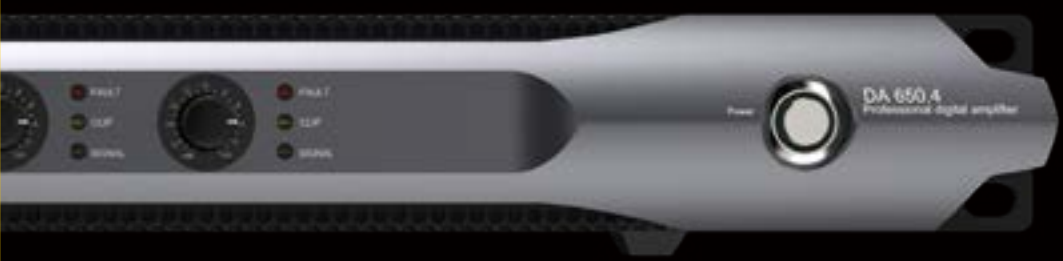
We build successful digital stories.

We will help you grow your idea into a profitable business.

DA Series

DIGITAL POWER AMPLIFIER

DA 3000.2
DA 2000.4
DA 1000.4
DA 650.4


DA 650.4
Professional digital amplifier

Product Introduction

DAseries digital amplifiers are ENEWAVE's newly developed high-tech digital amplifiers, digital amplifiers, including newly designed power circuits and postamplifier circuits. This series inherits the high reliability and wide applicability of the ENEWAVE amplifier. The newly designed digital modulation circuit results in better sound quality, wider dynamic range, higher efficiency and less distortion. The addition of the output parallel and bridge modes makes the amplifier highly adaptable. Ultra-portable, ultra-thin, lightweight 1U rack height.

The **DA** Series power supplies feature advanced SMPS circuitry and APFC design to provide a wide power range and high efficiency. The APFC power circuit has a high power factor of 0.99. We have completed soft-switching zero voltage and zero current, making the SMPS circuit more stable and have a high efficiency mode. SMPS technology, designed for the touring sound and accepts global voltage standard (50Hz or 60Hz). Based on this technology, our products offer a true green power supply with low harmonics, high efficiency and high power factor.

Excellent power supply design is just one of the characteristics of our products.

The high-end Σ circuit brings broadband effects, high dynamics and low distortion output, providing the best driving force for the speaker system. After years of painstaking experiments, the ENEWAVE technical team successfully developed a new modulation circuit based on the Σ circuit. This new modulation mode ensures that the music signal is extremely detailed. In addition, the fixed switching frequency is greatly reduced, which results in less heat generated by the power amplifier, greatly improving efficiency. At the same time, static power consumption is also reduced to the extreme low.

The DA series has a complete circuit protection design. In the field of digital power amplifiers, judging high-frequency short-circuit is a difficult problem to solve. In the DA series, we have solved this difficult technical problem. Through a lot of experiments and improvements, we have designed a unique circuit to make the DA series amplifiers more stable. In addition, DA Series amplifiers provide power protection, current overload protection, over voltage protection, under voltage protection, temperature control, DC protection, peak clipping, amplitude limiting, VHF protection and automatic temperature control fan systems.

DA 3000.2

DA 2000.4

DA 1000.4

DA 650.4

The unique patented signal modulation and output filter circuit technology brings huge efficiency advantages and reduces power consumption. The DA series not only sounds good, it is also very environmentally friendly

Product Features

- Advanced SMPS power technology
- Active power factor correction technology APFC
- Enhanced class 3D topology
- 2 or 4 channels
- Quiet, continuously variable fan system
- With soft start switch
- Undervoltage protection and overvoltage protection
- VHF protection
- Peak clipping protection
- Short circuit protection
- Thermal overload protection
- Intelligent temperature control cooling technology
- Lightweight and compact 1U body
- Balanced XLR/TRS combination socket input
- Standard Neutrik Speak-on and Powercon TMinput and output ports

Application

Mobile performance, Theater, sports venues, nightclubs, auditoriums, churches, the hotel banquet hall, meeting rooms, background music

	DA 3000.2	DA 2000.4
Performance		
Rated Power	8Ω/Stereo: 2×3000W 4Ω/Stereo: 2×5100W 2Ω/Stereo: 2×8670W 16Ω/Bridge: 1×6000W 8Ω/Bridge: 1×10200W 4Ω/ Bridge: 1×17340W	8Ω/Stereo: 4×2000W 4Ω/Stereo: 4×3400W 2Ω/Stereo: 4×5780W 16Ω/Bridge: 2×4000W 8Ω/Bridge: 2×6800W 4Ω/ Bridge: 2×11560W
RMS Output Voltage	154.9V (THD=1%,1kHz)	126.5V (THD=1%,1kHz)
Rising Slope	50V/us(1kHz, Bypass low-pass filter)	50V/us(1kHz, Bypass low-pass filter)
Input Sensitivity	(Rated Power output, 1kHz) Selectable: 41dB, 38dB, 35dB, 32dB	(Rated Power output, 1kHz) Selectable: 41dB, 38dB, 35dB, 32dB
THD+N	(10% Rated Power output, Typical)0.01%	(10% Rated Power output, Typical)0.01%
IMD-SMPTE	(10% Rated Power output, Typical)0.01%	(10% Rated Power output, Typical)0.01%
DIM30	(10% Rated Power output, Typical)0.01%	(10% Rated Power output, Typical)0.01%
Crosstalk interaction control	(Lower than Rated Power , 20 Hz ~1 kHz) ⩾ 90 dB	(Lower than Rated Power , 20 Hz ~1 kHz) ⩾ 90 dB
Frequency response	(10% Rated Power output, 8Ω, 20Hz~20 kHz) ±0.2dB	(10% Rated Power output, 8Ω, 20Hz~20 kHz) ±0.2dB
Input impedance	20kΩ (Balanced), 10kΩ(Un-Balanced)	20kΩ (Balanced), 10kΩ(Un-Balanced)
Damping Factor	(8Ω, 20Hz~200Hz) ⩾ 5000	(8Ω, 20Hz~200Hz) ⩾ 5000
S/N Ratio	(A, 20Hz~20kHz) ⩾ 115dB	(A, 20Hz~20kHz) ⩾ 112dB
Power requirement	90~285VAC, 50~60 Hz	90~285VAC, 50~60 Hz
Protection	Power supply undervoltage protection, power amplifier output DC protection, overheat protection, temperature power control, overload power control	Power supply undervoltage protection, power amplifier output DC protection, overheat protection, temperature power control, overload power control
Weight	11kg	11kg
Size	483mm x 465mm x 44mm (WxDxH)	483mm x 465mm x 44mm (WxDxH)

	DA 1000.4	DA 650.4
Performance		
Rated Power	8Ω/Stereo: 4×1000W 4Ω/Stereo: 4×1700W 2Ω/Stereo: 4×2890W 16Ω/Bridge: 2×2000W 8Ω/Bridge: 2×3400W 4Ω/ Bridge: 2×5780W	8Ω/Stereo: 4×650W 4Ω/Stereo: 4×1105W 2Ω/Stereo: 4×1880W 16Ω/Bridge: 2×1300W 8Ω/Bridge: 2×2210W 4Ω/ Bridge: 2×3760W
RMS Output Voltage	89.4V (THD=1%,1kHz)	72.1V (THD=1%,1kHz)
Rising Slope	50V/us(1kHz, Bypass low-pass filter)	50V/us(1kHz, Bypass low-pass filter)
Input Sensitivity	(Rated Power output, 1kHz) Selectable: 38dB, 35dB, 32dB, 29dB	(Rated Power output, 1kHz) Selectable: 38dB, 35dB, 32dB,29dB
THD+N	(10% Rated Power output, Typical)0.01%	(10% Rated Power output, Typical)0.01%
IMD-SMPTE	(10% Rated Power output, Typical)0.01%	(10% Rated Power output, Typical)0.01%
DIM30	(10% Rated Power output, Typical)0.01%	(10% Rated Power output, Typical)0.01%
Crosstalk interaction control	(Lower than Rated Power , 20 Hz ~1 kHz) ⩾ 90 dB	(Lower than Rated Power , 20 Hz ~1 kHz) ⩾ 90 dB
Frequency response	(10% Rated Power output, 8Ω, 20Hz~20 kHz) ±0.2dB	(10% Rated Power outpu, 8Ω, 20Hz~20 kHz) ±0.2dB
Input impedance	20kΩ (Balanced), 10kΩ(Un-Balanced)	20kΩ (Balanced), 10kΩ(Un-Balanced)
Damping Factor	(8Ω, 20Hz~200Hz) ⩾ 5000	(8Ω, 20Hz~200Hz) ⩾ 5000
S/N Ratio	(A, 20Hz~20kHz) ⩾ 109dB	(A, 20Hz~20kHz) ⩾ 112dB
Power requirement	90~285VAC, 50~60 Hz	90~285VAC, 50~60 Hz
Protection	Power supply undervoltage protection, power amplifier output DC protection, overheat protection, temperature power control, overload power control	Power supply undervoltage protection, power amplifier output DC protection, overheat protection, temperature power control, overload power control
Weight	8kg	8kg
Size	483mm x 370mm x 44mm (WxDxH)	483mm x 370mm x 44mm (WxDxH)

CA Series

ANALOG POWER AMPLIFIER

CA-8150II
CA-350II
CA-900II
CA-1600II

Product Introduction

CAThe CA series amplifiers are classic analog power amplifiers. Design with Class AB or Class H circuits. The quality are mature and stable and can be used in a variety of harsh environments to achieve troublefree operation. Available in a variety of configurations, power levels and features to meet the needs of any commercial application. This includes a comprehensive set of protection circuits that are commonly found in CA amplifiers. Comprehensive protection for high temperature environments, audio limiters, power-on delays and peak current limiters. The Phoenix type connector for input and output makes rack wiring easy.

In the various models of the CA series, the 2U national standard rack is used, covering the power range of 150 to 1200 watts. The outstanding circuit design and complete set of rack design make the CA Series rugged and more cost effective for any permanent sound installation system solution.

CA-8150II

CA-350II

CA-900II

CA-1600II

Product Features

- Classic class AB or class H circuit, Powerful output and low power distortion.
- 2U compact chassis structure.
- All are powered by transformer, stable and reliable.
- Terminal interface designed for engineering installation, easy to install.
- Comprehensive protection.

Application

Conference center, exhibition hall, auditorium, theater, banquet hall, medium and largescale PA, live performance.

	CA-8150II	CA-350II
Performance		
Single channel	Continuous average output per channel @0.1% THD	Continuous average output per channel @0.1% THD
Output power	8 Ohms: 100Wx8 4 Ohms: 150Wx8	8 Ohms: 210Wx2 4 Ohms: 350Wx2 2 Ohms: 500Wx2
Bridge connection	Continuous average output per channel @0.1% THD	Continuous average output per channel @0.1% THD
Output power	8 Ohms: 300Wx4	8 Ohms: 700Wx1 4 Ohms: 950Wx1
Working mode	Class D	AB
Input sensitivity	0.775V@rated output power or voltage, 1kHZ	1V@rated output power or voltage, 1kHZ
Input impedance	10K Ω (imbalance), 20K Ω (balance)	10K Ω (imbalance), 20K Ω (balance)
Signal-to-noise ratio	⩾ 100dB	⩾ 100dB
Distortion rate	⩽ 0.5%	⩽ 0.01% Rated Power @ 8Ω 1kHZ
Damping coefficient	⩾ 250@4Ω/1kHZ	⩾ 500@8Ω/1kHZ
Conversion rate	16V/ μs@Stereo mode	36V/ μs@Stereo mode
Frequency response	20Hz - 20kHz, +0dB/-1.5dB	20Hz - 20kHz, +3dB/-0dB
Protection device	Full short circuit, open circuit, heat, ultra high frequency and radio frequency protection	Full short circuit, open circuit, heat, ultra high frequency and radio frequency protection
Cooling	Automatic stepless variable speed fan, front ventilation	Automatic stepless variable speed fan, front ventilation
Physical parameters		
Working voltage	AC 200~240V(50~60Hz)	AC 200~240V(50~60Hz)
Chassis	2U quality steel chassis	2U quality steel chassis
Connector	3-pin connection module output: terminals	3-pin connection module output: terminals
Dimensions	483mm x 355mm x 89mm (WxDxH)	483mm x 364mm x 89mm (WxDxH)
Weigh	8kg 10kg	15.25kg 17.1kg

	CA-900II	CA-1600II
Performance		
Single channel	Continuous average output per channel @0.1% THD	Continuous average output per channel @0.1% THD
Output power	8 Ohms: 600Wx2 4 Ohms: 900Wx2 2 Ohms: 1200Wx2	8 Ohms: 1000Wx2 4 Ohms: 1600Wx2 2 Ohms: 2200Wx2
Bridge connection	Continuous average output per channel @0.1% THD	Continuous average output per channel @0.1% THD
Output power	8 Ohms: 1750Wx1 4 Ohms: 2250Wx1	8 Ohms: 3300Wx1 4 Ohms: 4500Wx1
Working mode	H	H
Input sensitivity	1.4V@rated output power or voltage, 1kHZ	1.4V@rated output power or voltage, 1kHZ
Input impedance	10K Ω (imbalance), 20K Ω (balance)	10K Ω (imbalance), 20K Ω (balance)
Signal-to-noise ratio	⩾ 100dB	⩾ 100dB
Distortion rate	⩽ 0.01% Rated Power @ 8Ω 1kHZ	⩽ 0.01% Rated Power @ 8Ω 1kHZ
Damping coefficient	⩾ 500@1kHZ/8Ω	⩾ 500@1kHZ/8Ω
Conversion rate	36V/ μs@Stereo mode	50V/ μs@Stereo mode
Frequency response	20Hz - 20kHz, +3dB/-0dB	20Hz - 20kHz, +3dB/-0dB
Protection device	Full short circuit,open circuit, heat, ultra high frequency and radio frequency protection	Full short circuit, open circuit, heat, ultra high frequency and radio frequency protection
Cooling	Automatic stepless variable speed fan, front ventilation	Automatic stepless variable speed fan, front ventilation
Physical parameters		
Working voltage	AC 200~240V(50~60Hz)	AC 200~240V(50~60Hz)
Chassis	2U quality steel chassis	2U quality steel chassis
Connector	3-pin connection module output: terminals	3-pin connection module output: terminals
Dimensions	483mm x 415mm x 89mm (WxDxH)	483mm x 471mm x 89mm (WxDxH)
Weight	20kg 21.7kg	24kg 26kg

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INSTALLATION

X Series	X-Pad X-Sub X-Pad Pro X-Bass X-Cube 5 X-AMP
LCA Series	Lark-8 Lark-16 Shrike-8 Shrike-16
AS Series	AS-12 AS-15 AS-18
CS Series	CS-4C CS-6C CS-8C CS-84S CS-3CN

TOURING

VLA Series	VLA-208 VLA-208Sub VLA-206 VLA-206Sub VLA-210 System VLA-215 System VLA-132
LCA Series	Lark-8 Lark-16 Shrike-8 Shrike-16
AS Series	AS-12 AS-15 AS-18

MUSIC

VS Series	VS-8 VS-10 VS-12 VS-15
SW Series	SW-218II SW-118II
MS	MS-15C

SYSTEM MANAGEMENT

AAC Series	AAC-48L
Galaxy Series	Mars 1608 Mars 1608AEC Mars 8016 Venus 1608 Venus 8016 Venus 808
	GP-70T GP-4S1V

POWER AMPLIFIER

DA Series	DA 3000.2 DA 2000.4 DA 1000.4 DA 650.4
CA Series	CA-8150II CA-350II CA-900II CA-1600II