

**Dynamic Audio Solutions** 

## BrainCore<sup>™</sup>

Technology Inside



www.audiocenter.net \_



### SA3 Series **Active DSP-controlled Loudspeaker**

SA3 series is Audiocenter latest active DSP-controlled Loudspeaker with high performance and high quality/price ratio. SA3 is built with BrainCore™ which analyses and processes the input signal, DSP module and Class D amplifier optimally, improving the audio performance of the system significantly.

Built-in wireless bluetooth makes various bluetooth devices can be linked to SA3 easily and get the audio output.

SA3 is designed for fixed installation and touring performance, such as multi-functional conference room, house of worship, museum, wedding, lecture, DJ, stage monitor, etc.

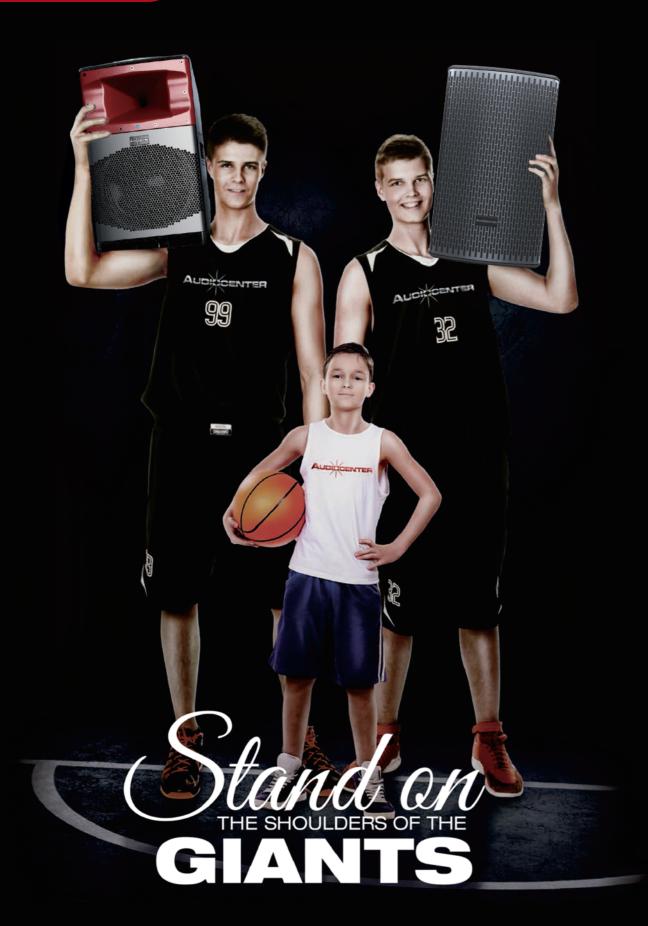


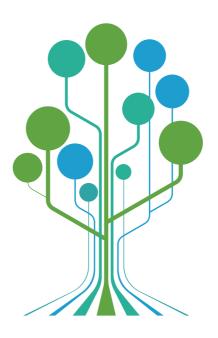
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**AUDIOCENTER INTERNATIONAL** 







# **BrainCore**<sup>TM</sup>

BrainCore™ is an innovative core application technology researched and developed by Audiocenter, devoted to Audiocenter active DSP-controlled loudspeakers with supreme performance and high reliability.

With its advanced technology and scientific methodology, BrainCore<sup>™</sup> analyses and processes the input signal, DSP module, Class D amplifier and loudspeaker optimally, achieving excellent frequency response and audio reproduction even at high levels of SPL.

### **ADVANTAGES**







### **IMPORTANT FEATURES**



### Innovative BrainCore™ technology to improve the audio performance of the system

The innovative BrainCore™ technology and built-in powerful DSP processor improve the performance of the speaker. With Cort™ correction technology and Limita™ processing technology, the system works with safety and reliability and achieves supreme performance.



### **EQ** Adjustable

The frequency response of different bandwidth range can be adjusted according to actual application, very easy to use.



#### **Built-in Bluetooth**

and clear sound

Built-in wireless bluetooth makes various bluetooth devices can be linked to SA3 easily and get the audio output. Users can enjoy the wonderful sound whenever and wherever possible. The transfer is stable and reliable, which makes the sound clean and clear.

**Excellent Materials and Unique** 

CNC made cabinet of excellent wood

reduces resonance and makes the

cabinet stronger. Customized driver,

physical acoustics construction design

and innovative designed, compact and

multi-purpose cabinet, provide the clean

**Physical Acoustics Design** 



### **Advanced Cooling System**

Moulded large heatsink improves the cooling efficiency, with the result of higher reliability of the system.



#### **Unique Horn Design**

SA3 adopts unique horn design, which makes the penetration of HF stronger, and get cleaner and clearer sound.



### Portable Design, Plug&Play

The compact and integrated installation design, integrated and simple control of back panel and fast connect to speaker system make it suitable for fixed installation and touring performance. Very simple and convenient for usage.



#### **Customized ProDriver**

Latest driver technology and customized driver ensure very clean and clear sound and impressive sound dynamic.



### Class D Amplifier

SA3 adopts customized Class D amplifier together with switch mode power supply technology, which ensures the high efficiency of the system, exquisite and compact outlook and advanced cooling.

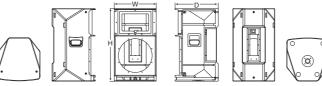


### Stylish outlook

Unique geometric modeling makes the cabinet design of SA3 very stylish.

### **SA315**





Dimension(W×H×D):439×760×454mm

### PRODUCT PROFILE

Two combo inputs CH A (1-way XLR and Mono jack 6.35) are available in SA315, which can be switched between line input and microphone input. The audio port CH B(Mono jack 6.35 or a RCA port) is for the other sound resources like MP3, CD player, etc. There is 1-way signal input port for wireless bluetooth in it and the volume is controlled by terminal. The gain of CH A/CH B signal input is controlled by independent knob and 1-way master volume control knob. The four different audio sources can be parallel output with one-way XLR after mixed internally, and then sent to different speakers for sound distribution.

SA315 can be installed by steel wire. It can also be standing by coupling bar or three-feet stand. The pole mount is 35mm. Various accessories are offered for SA315 to meet different kinds of installs.

### **SPECIFICATION**

Type Active DSP-controlled full range

loudspeaker Frequency Response(-10dB) 44Hz-20kHz **Horizontal Coverage** 60° **Vertical Coverage** 40° 128dB/134dB

**Maximum Calculated** SPL/1M(Continuous/Peak)

**HF Driver** Customized driver, 1.75" voice coil,

1.0" exit Customized 15" driver, 3.0" voice coil

LF Driver DSP

**Processor** 48kHz signal sampling frequency **AMPLIFIER Amplifier Circuitry** Class D Power (RMS standards) 1000W

2000W **Peak Power Frequency Response** 20Hz-20kHz(±0.5dB)

(1W 8Ω 2ch)

**Intermodulation Distortion** <0.05% **Total Harmonic Distortion** <0.05%

**Cooling System** Cooling with fans, air convection Protection

DC protection, short circuit protection, overheat protection, input overload protection, output overload protection,

soft startup protection, overvoltage protection, undervoltage protection 1× female XLR(Mono jack 6.35),

Signal Input 1× Mono jack 6.35, 1×RCA, 1× wireless bluetooth

**Signal Output** 1× male XLR IEC power connector **Power Input** 

**AC Power Operating Range** 100-240V~ (±10%,50/60Hz)

Power consumption

(1/8 output power) CABINET

**Cabinet Material** CNC machined plywood **Cabinet Color** 

Black is the default color. Contact Audiocenter for customization

Grille Iron mesh

Handles 2 side Symmetrical 45° monitoring Angle **Monitor Angle** 

Hanging Hardwares M8 screw

**Pole Mount** Base hole Φ35mm Speaker Dimension (W×H×D) 439x760x454mm Carton Dimension (W×H×D) 525×855×540mm

**Net Weight** 27.0kg **Shipping Weight** 30.5kg

SYSTEM CONFIGURATION

### SUGGESTED APPLICATION



meeting room



worship

Stage Monitor





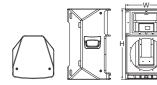


■ SA3 subwoofer or the same type of subwoofer



### **SA312**









Dimension(W×H×D):356×608×372mm

### PRODUCT PROFILE

Two combo inputs CH A (1-way XLR and Mono jack 6.35) are available in SA312, which can be switched between line input and microphone input. The audio port CH B(Mono jack 6.35 or a RCA port) is for the other sound resources like MP3, CD player, etc. There is 1-way signal input port for wireless bluetooth in it and the volume is controlled by terminal. The gain of CH A/CH B signal input is controlled by independent knob and 1-way master volume control knob. The four different audio sources can be parallel output with one-way XLR after mixed internally, and then sent to different speakers for sound distribution.

SA312 can be installed by steel wire. It can also be ground standing by coupling bar or three-feet stand. The pole mount is 35mm. Various accessories are offered for SA312 to meet different kinds of installs

### SPECIFICATION

Type Active DSP-controlled full range loudspeaker

Frequency Response(-10dB) 48Hz-20kHz **Horizontal Coverage** 60° **Vertical Coverage** 40° **Maximum Calculated** 126dB/132dB

SPL/1M(Continuous/Peak)

**HF Driver** Customized driver, 1.75" voice coil,

1.0" exit

LF Driver Customized 12" driver, 2.5" voice coil DSP

Processor

48kHz signal sampling frequency **AMPLIFIER** 

**Amplifier Circuitry** Class D Power (RMS standards) 1000W **Peak Power** 2000W

**Frequency Response** (1W 8Ω 2ch)

Intermodulation Distortion <0.05% **Total Harmonic Distortion** <0.05%

**Cooling System** 

Cooling with fans, air convection DC protection, short circuit protection, Protection

> overheat protection, input overload protection, output overload protection, soft startup protection, overvoltage protection, undervoltage protection

1× female XLR(Mono jack 6.35),

20Hz-20kHz(±0.5dB)

Signal Input 1× Mono jack 6.35, 1×RCA, 1× wireless bluetooth

Signal Output 1× male XLR **Power Input** IEC power connector **AC Power Operating Range** 100-240V~ (±10%,50/60Hz) 55W

Power consumption

(1/8 output power) CABINET

**Cabinet Material** CNC machined plywood Black is the default color. Contact Cabinet Color

Audiocenter for customization

Grille Iron mesh

Handles 2 side **Monitor Angle** 

Symmetrical 45° monitoring Angle Hanging Hardwares M8 screw

**Pole Mount** Base hole Φ35mm

Speaker Dimension (W×H×D) 356x608x372mm Carton Dimension (W×H×D) 442×703×458mm

20.0kg **Net Weight Shipping Weight** 22.0kg

#### SUGGESTED APPLICATION SYSTEM CONFIGURATION













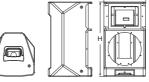




■ SA3 subwoofer or the same type of subwoofer

### **SA310**











Dimension(W×H×D):296×530×312mm

### PRODUCT PROFILE

Two combo inputs CH A (1-way XLR and Mono jack 6.35) are available in SA310, which can be switched between line input and microphone input. The audio port CH B(Mono jack 6.35 or a RCA port) is for the other sound resources like MP3, CD player, etc. There is 1-way signal input port for wireless bluetooth in it and the volume is controlled by terminal. The gain of CH A/CH B signal input is controlled by independent knob and 1-way master volume control knob. The four different audio sources can be parallel output with one-way XLR after mixed internally, and then sent to different speakers for sound distribution.

SA310 can be installed by steel wire. It can also be ground standing by coupling bar or three-feet stand. The pole mount is 35mm. Various accessories are offered for SA310 to meet different kinds of

### **SPECIFICATION**

SIDANG PLENO 3

Type Active DSP-controlled full range

loudspeaker Frequency Response(-10dB) 57Hz-20kHz **Horizontal Coverage** 90° **Vertical Coverage** 60°

124dB/130dB **Maximum Calculated** SPL/1M(Continuous/Peak)

**HF Driver** Customized driver, 1.75" voice coil,

1.0" exit

LF Driver Customized 10" driver, 2.0" voice coil DSP

Processor **AMPLIFIER** 

48kHz signal sampling frequency

**Amplifier Circuitry** Class D Power (RMS standards) 1000W **Peak Power** 2000W

**Frequency Response** 20Hz-20kHz(±0.5dB)

(1W 8Ω 2ch)

**Intermodulation Distortion** <0.05% **Total Harmonic Distortion** <0.05%

**Cooling System** Cooling with fans, air convection Protection DC protection, short circuit protection,

overheat protection, input overload protection, output overload protection, soft startup protection, overvoltage protection, undervoltage protection

Signal Input 1× female XLR(Mono jack 6.35), 1× Mono jack 6.35, 1×RCA,

1× wireless bluetooth Signal Output 1× male XLR **Power Input** IEC power connector

**AC Power Operating Range** 100-240V~ (±10%,50/60Hz) Power consumption

(1/8 output power)

CABINET

**Cabinet Material** CNC machined plywood **Cabinet Color** Black is the default color Contact

Audiocenter for customization

Grille Iron mesh Handles 1 top

**Monitor Angle** Hanging Hardwares M8 screw

**Pole Mount** Base hole Φ35mm Speaker Dimension (W×H×D) 296x530x312mm Carton Dimension (W×H×D) 382×625×398mm

**Net Weight** 14.5kg **Shipping Weight** 16.0kg

### SUGGESTED APPLICATION



meeting room







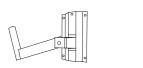


### SYSTEM CONFIGURATION

■ SA3 subwoofer or the same type of subwoofer



### ACCESSORIES FOR SA312/315



Flexible wall mounting frame Bearing 40KG



Φ3 steel wire The wire is 3mm diameter, 1M long with wire ear and wire jacket, bearing 60KG



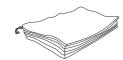
Coupling bar Handbag(customized) Bearing 50KG



Three-feet stand Bearing 80KG

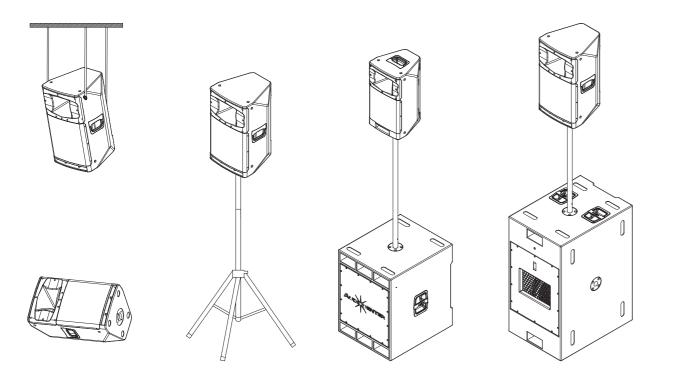


Flightcase For 2 cabinets, with 100mm wheels



Rain bag(customized)

### INSTALLATIONS



### **SA3218**





Dimension(W×H×D):988×520×714mm

### PRODUCT PROFILE

3 low-pass filters (80Hz, 100Hz, 120Hz) in SA3218 are available to choose according to different venues and music styles. There is also phase switch. All connectors and function buttons are on the back

SA3218 subwoofer is with 1-way XLR for input and output. Signals can be sent to different speakers for sound distribution.

### SPECIFICATION

Active DSP-controlled Compact Type

Subwoofer Frequency Response(-10dB) 32Hz-150Hz **Maximum Calculated** 134dB/140dB SPL/1M(Continuous/Peak)

LF Driver Customized 2x18" driver, 4.0" voice coil

DSP Processor 48kHz signal sampling frequency

80Hz, 100Hz, 120Hz **Presets** 

**AMPLIFIER Amplifier Circuitry** Class D Power (RMS standards) 2000W **Peak Power** 4000W

20Hz-20kHz(±0.5dB) Frequency Response

(1W 8Ω 2ch)

Intermodulation Distortion <0.05% **Total Harmonic Distortion** <0.05%

**Cooling System** 

Cooling with fans, air convection Protection DC protection, short circuit protection,

overheat protection, input overload protection, output overload protection, soft startup protection, overvoltage protection, undervoltage protection

Female XLR Signal Input Signal Output Male XLR

**Power Input** IEC power connector

**AC Power Operating Range** 100-130V~/220-240V~(±10%,50/60Hz)

237W Power consumption

(1/8 output power) CABINET

**Cabinet Material** 

CNC machined plywood

Black is the default color. Contact **Cabinet Color** Audiocenter for customization

Grille Iron mesh

Handles 4 side

**Pole Mount** M20 base Φ35mm Speaker Dimension (W×H×D) 988x520x714mm Carton Dimension (W×H×D) 606×1112×800mm

**Net Weight** 70.0kg 75.5kg **Shipping Weight** 

### **ACCESSORIES FOR SA3218**









Flightcase For 1 cabinet, with 100mm wheels

(customized)

Rain bag (customized)

Wheel









Wedding

SUGGESTED APPLICATION

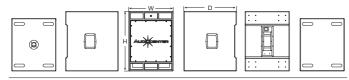
### SYSTEM CONFIGURATION

■ SA3 full range loudspeaker or the same type of full range loudspeaker



### **SA3118**





Dimension(W×H×D):520×700×618mm

### PRODUCT PROFILE

3 low-pass filters (80Hz, 100Hz, 120Hz) in SA3118 are available to choose according to different venues and music styles. There is also phase switch. All connectors and function buttons are on the back

SA3118 subwoofer is with 1-way XLR for input and output. Signals can be sent to different speakers for sound distribution.

### SPECIFICATION Type

Active DSP-controlled Compact

Subwoofer Frequency Response(-10dB) 35Hz-150Hz **Maximum Calculated** 128dB/134dB SPL/1M(Continuous/Peak)

LF Driver

Customized 1x18" driver, 4.0" voice coil DSP

Processor 48kHz signal sampling frequency 80Hz, 100Hz, 120Hz

Presets **AMPLIFIER** 

**Amplifier Circuitry** Class D Power (RMS standards) 1000W **Peak Power** 2000W

Frequency Response

(1W 8Ω 2ch)

Intermodulation Distortion <0.05%

**Total Harmonic Distortion** <0.05% **Cooling System** 

Cooling with fans, air convection Protection DC protection, short circuit protection, overheat protection, input overload

protection, output overload protection, soft startup protection, overvoltage protection, undervoltage protection

Signal Input Female XLR Signal Output Male XLR

Power Input IEC power connector

**AC Power Operating Range** 100-130V~/220-240V~(±10%,50/60Hz)

Power consumption 120W

(1/8 output power) CABINET

**Cabinet Material** CNC machined plywood **Cabinet Color** 

Black is the default color. Contact Audiocenter for customization

20Hz-20kHz(±0.5dB)

Grille Iron mesh Handles 2 side

**Pole Mount** M20 base Φ35mm Speaker Dimension (W×H×D) 520x700x618mm

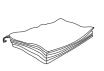
Carton Dimension (W×H×D) 606×825×704mm **Net Weight** 43.0kg 48.0kg **Shipping Weight** 

### **ACCESSORIES FOR SA3118**



Flightcase For 1 cabinet,







Rain bag (customized)

Wheel







Multi-functional meeting room

with 100mm wheels

Dolly (customized)

### SYSTEM CONFIGURATION

SUGGESTED APPLICATION

■ SA3 full range loudspeaker or the same type of full range loudspeaker

### ■ SA3 Series Specifications

SPECIFICATIONS		SA315	SA312	SA310	SA3218	SA3118
Frequency Response(-10dB)		44Hz-20kHz	48Hz-20kHz	57Hz-20kHz	32Hz-150Hz	35Hz-150Hz
Directivity -6dB(H°×V°)		60° x 40°		90° x 60°		1
Maximum Calculated SPL/1M	Continuous	128dB	126dB	124dB	134dB	128dB
	Program	131dB	129dB	127dB	137dB	131dB
	Peak	134dB	132dB	130dB	140dB	134dB
Drivers	HF	Customized driver,1.75" voice coil,1.0" exit			1	
	LF	Customized 15" driver, 3.0" voice coil	Customized 12" driver, 2.5" voice coil	Customized 10" driver, 2.0" voice coil	Customized 2x18" driver, 4.0" voice coil	Customized 18" driver, 4.0" voice coil

DSP				
Processor	ssor 48kHz signal sampling frequency			
Presets	I	80Hz,100Hz,120Hz		

AMPLIFIER					
Amplifier	Class D				
Power(RMS standards)	1000W			2000W	1000W
Peak Power	2000W			4000W	2000W
Frequency Response(1W 8Ω 2ch)	20Hz-20kHz(±0.5dB)				
Intermodulation Distortion (20Hz-20kHz, half power)	<0.05%				
Total Harmonic Distortion (20Hz-20kHz, Rated power 8Ω)	<0.05%				
Cooling	Cooling with fans ,air convection				
Protection	DC protection,Short circuit protection,Overheat protection,Output overload protection, Soft startup protection,Overvoltage protection,Undervoltage protection				
Signal Input	Female XLR(Mono jack 6.35), Mono jack 6.35, RCA, Wireless bluetooth		Female XLR		
Signal Output	Male XLR				
Power Input Connector	IEC power connector				
Working Voltage	100-240V~(±10%, 50/60Hz)		100V-130V~ or 220V-240V~(±10%,50/60Hz)		
Power consumption (1/8 output power)	64W	55W	49W	237W	120W

			0110			
Cabinet Material	CNC machined plywood					
Cabinet Color	Black is the default color. Contact Audiocenter for customization					
Grille	Iron mesh					
Handles	2 side		1 top	4 side	2 side	
Monitor Angle	Symmetrical 45° monitoring Angle		1	1	1	
Hanging Hardwares	M8 screw					
Pole Mount	Base hole Φ35mm			M20 base Ф35mm		
Optional Accessories	Flexible wall mounting bracket / Coupling bar / Flightcase / Durable rain bag / Handbag			Flightcase / Durable rain bag / Wheel/Dolly		
Speaker Dimension(W×H×D)	439×760×454mm	356×608×372mm	296×530×312mm	988×520×714mm	520×700×618mm	
Carton Dimensions(W×H×D)	525×855×540mm	442×703×458mm	382×625×398mm	606×1112×800mm	606×825×704mm	
Net Weight	27.0 kg	20.0 kg	14.5 kg	70.0 kg	43.0 kg	
Shipping Weight	30.5 kg	22.0 kg	16.0 kg	75.5 kg	48.0 kg	
Technical Support and After-sales Service	Global application support team					

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