

**AUDIOCENTER**

Dynamic Audio Solutions

**BrainCore™**  
Technology Inside

[www.audiocenter.net](http://www.audiocenter.net)

*Together we are stronger*



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

GT active series is Audiocenter latest active speaker built with BrainCore™, innovative core application technology researched and developed by Audiocenter with supreme performance and high reliability.

GT active series is specially designed for fixed installation like ballroom, meeting room, lecture hall, exhibition center, house of worship and touring performance like party, road show, seminar, speech, etc.





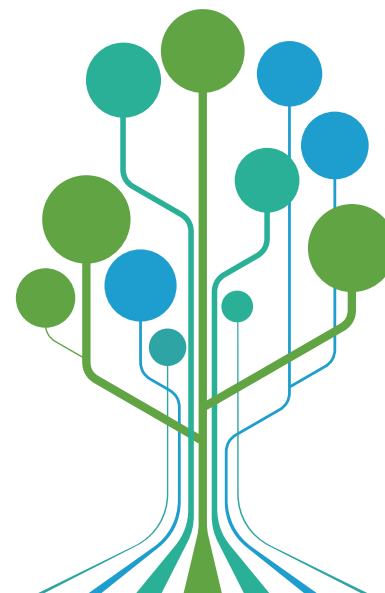
**Joan La Roda**  
Audiocenter R&D Director

Joan La Roda is an European electro-acoustic engineer, graduated from the Polytechnic University of Valencia (Spain), began his career in the audio industry since 1990 and has held various positions since then. During these 33 years, he first worked as a touring sound engineer, gaining experience in real-life situations. Then successfully designed sound systems for the largest Spanish audio manufacturer, including a top-selling stage monitor which is with linear phase response using FIR filters. After this period, he continued his career as a loudspeaker designer for several companies.

He has published educational articles in Spanish and English on phase alignment and tuning of cardioid subwoofers and has given educational seminars in Southeast Asia, Europe, Oceania and Latin America. Recently he published a book in Spanish to help people make the right choice when buying a sound system. He now uses BEM (Boundary Element Method) techniques to design horns and line array waveguides for Audiocenter.

## Design Concept

- Unique and proprietary original technology and patents  
Adhering to the principle of standing on the shoulders of giants, Audiocenter integrates top European R&D teams and top European speaker and electronic suppliers.
- To create stylish and compact loudspeaker designs with expert craftsmanship, high sound pressure levels, and versatile applications
- Serving the largest customer base with the best products
- Allow more people to enjoy the latest and most advanced technology
- Durable and suited to all weather conditions and scenarios



# BrainCore™

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™ 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.

## 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.



### Advanced Digital FIR Filter Technology

FIR filtering enhances the audio's attack, ensuring a dynamic and impactful sound experience. The linear phase response preserves the original transient characteristics of the audio signal, resulting in a sharper, more defined attack.



### Advanced Cooling System

Moulded large heatsink improves cooling, resulting in higher reliability.



### 3 Presets

GT active series is built with 3 different presets. Users can choose different presets according to their needs via the switch on the back panel.



### Class D Amplifier

The power amplifier module and DSP module have been designed by Audiocenter's R&D team in Europe and manufactured according to Europe engineering standards. The system operates stably and efficiently, ensuring high-quality audio output.



### DMF Composite Material Horn Design

The hybrid horn design using DMF composite materials makes sure of HF equalization, high-efficient signal and extremely low distortion.



### Customized ProDriver

Latest driver technology and customized drivers ensure a clean sound and impressive dynamics.



### Rotatable Horn

The 90°x60° HF horn can be rotated, allowing to choose the horizontal and vertical angles that best suits your needs.



### Sleep mode

To save power, the system will enter into sleep mode automatically if without signal input for 45 mins.



### Double Pole Mount

GT active Series adopts 0° or 10° options pole mount.



### Durable Polyurea Coating

The polyurea coating is waterproof, wear resistance, impact resistance and aging resistance.



### Solid Wood Cabinet

Optimized and compact cabinet structure design, using high-quality CNC cabinet, strong and moisture-proof, suitable for mobile applications.



## European R&D design, German standard engineering

The power amplifier module and DSP module were designed by Audiocenter's R&D team in Europe and manufactured according to German standard engineering. The system operates stably and efficiently, ensuring high-quality audio output.



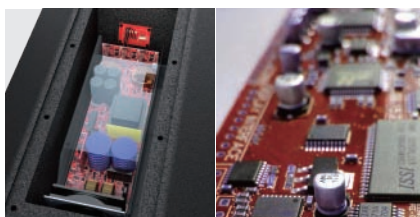
### Advanced Digital FIR Filter Technology

FIR filtering enhances the audio's attack, ensuring a dynamic and impactful sound experience. The linear phase response preserves the original transient characteristics of the audio signal, resulting in a sharper, more defined attack.

The power amplifier modules and DSP modules used in GT have been sold over 500,000 units worldwide and have proven to be of very stable and reliable quality.

### High-efficiency Class D Amplifier Module

The high-efficiency amplifier module can provide the highest sound output power among similar products. A single module has a peak power of up to 2200W and can provide excellent dynamic and transient response, greatly improving the audio performance of the speakers.



### Modular Power Amplifier Module

The modular power amplifier module adopts a sturdy mechanical structure, which can better protect the power amplifier. The tunnel-type heat dissipation also provides optimal heat dissipation efficiency (The aximum temperature rise is 30°).

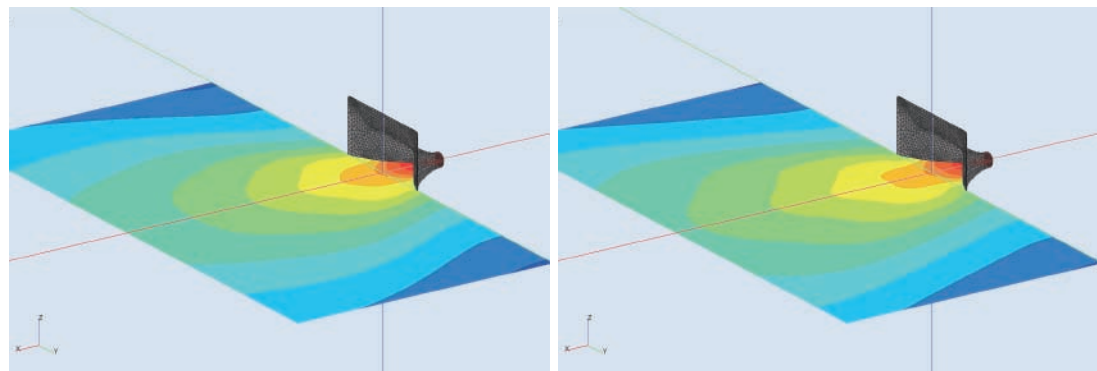
## AUDIOCENTER Horn Technology



The horn used in the GT active series has been developed in house by AUDIOCENTER R&D Department, using advanced and sophisticated Boundary Element Method (BEM) technology. It is an original and innovative horn created by integrating Audiocenter's rich experience in the audio industry.

GT active series employs a unique horn design, with strong high-frequency penetration and transparency while providing asmooth coverage without sidelobes.

The high-frequency horn provides a coverage angle of 90°x60°, and can be rotated 90° according to different usage scenarios.



## Function Introduction of Rear Panel



- |                           |                           |
|---------------------------|---------------------------|
| 1 POWER Indicator         | 9 INPUTS (MIC/LINE A)     |
| 2 SIGNAL Indicator        | 10 OUTPUTS (OUT A)        |
| 3 LIMITER Indicator       | 11 CH A Gain Control Knob |
| 4 PROTECT Indicator       | 12 INPUTS (LINE B)        |
| 5 LINE/MIC Switch         | 13 OUTPUTS (MIX OUT)      |
| 6 MIC Indicator           | 14 CH B Gain Control Knob |
| 7 FRONT LED ON/OFF Switch | 15 Voltage Switch         |
| 8 Preset Switch           | 16 Power Switch           |
|                           | 17 IEC power connector    |

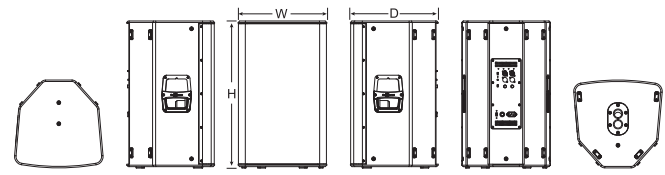


## GT515A



### Specification

<b>Type</b>	Active DSP-controlled full range loudspeaker
<b>Frequency Response(-10dB)</b>	40Hz-20kHz
<b>Maximum Calculated SPL/1M(Continuous/Peak)</b>	130dB/136dB
<b>HF</b>	Customized driver, 1.0" exit, 1.75" voice coil
<b>LF</b>	Customized 15" driver, 3" voice coil
<b>Horizontal Coverage</b>	90°/60°
<b>Vertical Coverage</b>	60°/90°
<b>DSP</b>	
<b>Processor</b>	48kHz signal sampling frequency, FIR filtering
<b>Presets</b>	MAIN, LF BOOST, W/SUB
<b>AMPLIFIER</b>	
<b>Amplifier Circuitry</b>	Class D
<b>Power (RMS standards)</b>	1100W
<b>Peak Power</b>	2200W
<b>Frequency Response (1W 8Ω 2ch)</b>	20Hz-20kHz(±0.5dB)
<b>Intermodulation Distortion</b>	<0.05%
<b>Total Harmonic Distortion</b>	<0.05%
<b>Cooling System</b>	Cooling with fans, air convection
<b>Protection</b>	DC protection, short circuit protection, overheat protection, input overload protection, output overload protection, soft startup protection, overvoltage protection, undervoltage protection
<b>Output / Input</b>	
<b>Signal Input</b>	Female XLR(Mono jack 6.35)
<b>Signal Output</b>	Male XLR
<b>Power Input</b>	IEC power connector
<b>Working Voltage</b>	100V-130V~ or 220V-240V~(±10%,50/60Hz)
<b>Power consumption (1/8 output power)</b>	95W
<b>Cabinet</b>	
<b>Cabinet Material</b>	CNC machined plywood
<b>Coating</b>	Durable Polyurea Coating
<b>Cabinet Color</b>	Black is the default color. Contact Audiocenter for customization
<b>Grille</b>	Iron mesh
<b>Handles</b>	2 side
<b>Monitor Angle</b>	Symmetrical 45° monitoring Angle
<b>Hanging Hardwares</b>	M8 screw
<b>Pole Mount</b>	Base hole Φ35mm, 0° or 10° options
<b>Speaker Dimension (W×H×D)</b>	421x696x416mm
<b>Carton Dimension (W×H×D)</b>	516×785×516mm
<b>Net Weight</b>	24.0kg
<b>Shipping Weight</b>	28.0 kg



Dimension(W×H×D):421×696×416mm

### Product Profile

The GT515A speaker has two combo inputs (2-way XLR and Mono jack 6.35). The CH A input can be switched between line balanced input or microphone input. The two audio sources can be internally mixed and output as a balanced output, transmitting the signal to multiple speakers for easy system cascading distribution.

The cabinet is made of high-quality wood, with an innovative and compact multi-purpose symmetrical cabinet structure CNC machined. This provides clear and powerful perfect sound quality. The base mounting holes are available in 0° or 10° options. According to different installation locations and methods, the cabinet can meet different sound reinforcement installation environments.

### Suggested Application



Multi-functional meeting room



House of worship



Museum



Lecture



DJ



Stage Monitor



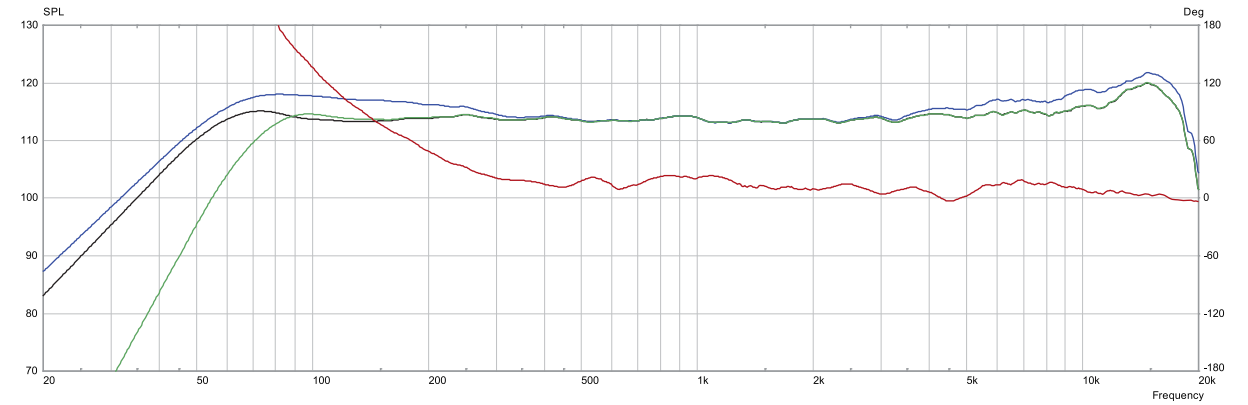
Performance



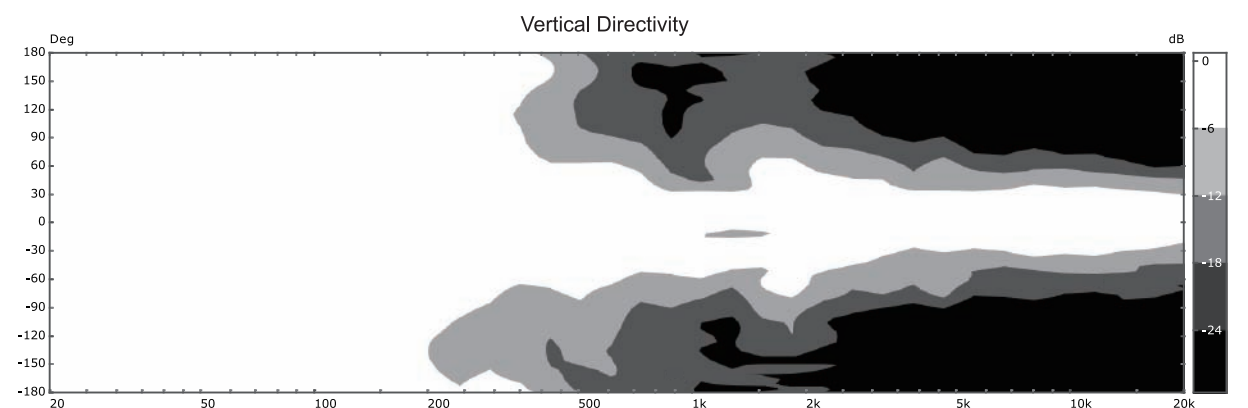
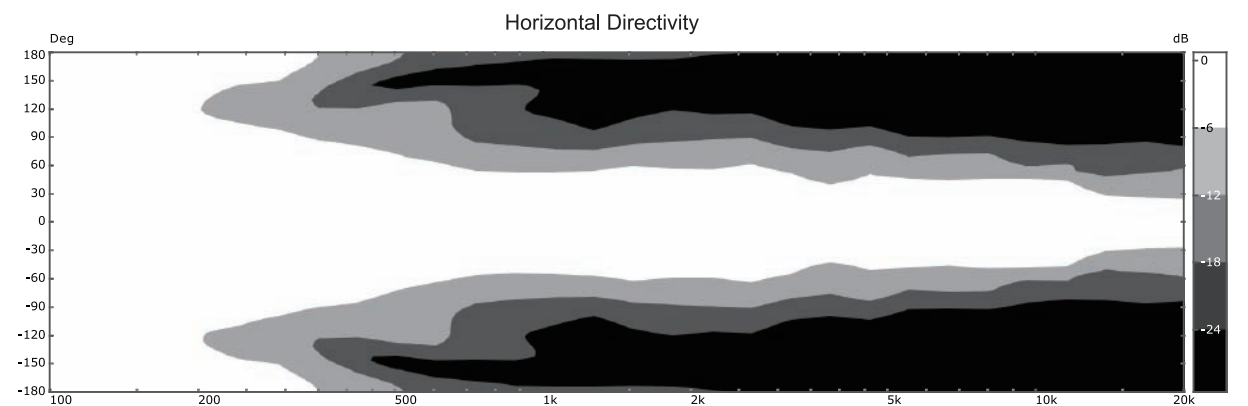
Wedding



### Frequency Response Graphs



### Normalized Isobar Plot

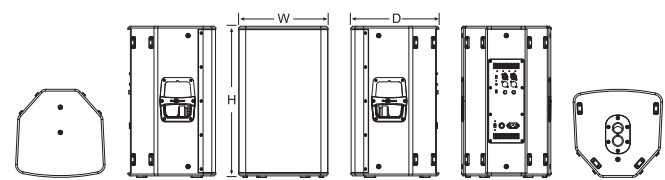


## GT512A



### Specification

<b>Type</b>	Active DSP-controlled full range loudspeaker
<b>Frequency Response(-10dB)</b>	42Hz-20kHz
<b>Maximum Calculated SPL/1M(Continuous/Peak)</b>	128dB/134dB
<b>HF</b>	Customized driver, 1.0" exit, 1.75" voice coil
<b>LF</b>	Customized 12" driver, 3" voice coil
<b>Horizontal Coverage</b>	90°/60°
<b>Vertical Coverage</b>	60°/90°
<b>DSP</b>	
<b>Processor</b>	48kHz signal sampling frequency, FIR filtering
<b>Presets</b>	MAIN, LF BOOST, W/SUB
<b>AMPLIFIER</b>	
<b>Amplifier Circuitry</b>	Class D
<b>Power (RMS standards)</b>	1100W
<b>Peak Power</b>	2200W
<b>Frequency Response (1W 8Ω 2ch)</b>	20Hz-20kHz(±0.5dB)
<b>Intermodulation Distortion</b>	<0.05%
<b>Total Harmonic Distortion</b>	<0.05%
<b>Cooling System</b>	Cooling with fans, air convection
<b>Protection</b>	DC protection, short circuit protection, overheat protection, input overload protection, output overload protection, soft startup protection, overvoltage protection, undervoltage protection
<b>Output / Input</b>	
<b>Signal Input</b>	Female XLR(Mono jack 6.35)
<b>Signal Output</b>	Male XLR
<b>Power Input</b>	IEC power connector
<b>Working Voltage</b>	100V-130V~ or 220V-240V~(±10%,50/60Hz)
<b>Power consumption (1/8 output power)</b>	95W
<b>Cabinet</b>	
<b>Cabinet Material</b>	CNC machined plywood
<b>Coating</b>	Durable Polyurea Coating
<b>Cabinet Color</b>	Black is the default color. Contact Audiocenter for customization
<b>Grille</b>	Iron mesh
<b>Handles</b>	2 side
<b>Monitor Angle</b>	Symmetrical 45° monitoring Angle
<b>Hanging Hardwares</b>	M8 screw
<b>Pole Mount</b>	Base hole Φ35mm, 0° or 10° options
<b>Speaker Dimension (W×H×D)</b>	355x599x349mm
<b>Carton Dimension (W×H×D)</b>	446x688x446mm
<b>Net Weight</b>	21.0 kg
<b>Shipping Weight</b>	24.0 kg



Dimension(W×H×D):355×599×349mm

### Product Profile

The GT512A speaker has two combo inputs (2-way XLR and Mono jack 6.35). The CH A input can be switched between line balanced input or microphone input. The two audio sources can be internally mixed and output as a balanced output, transmitting the signal to multiple speakers for easy system signal cascading distribution.

The cabinet is made of high-quality wood, with an innovative and compact multi-purpose symmetrical cabinet structure CNC machined. This provides clear and powerful perfect sound quality. The base mounting holes are available in 0° or 10° options. According to different installation locations and methods, the cabinet can meet different sound reinforcement installation environments.

### Suggested Application



Multi-functional meeting room



House of worship



Museum



Lecture



DJ



Stage Monitor



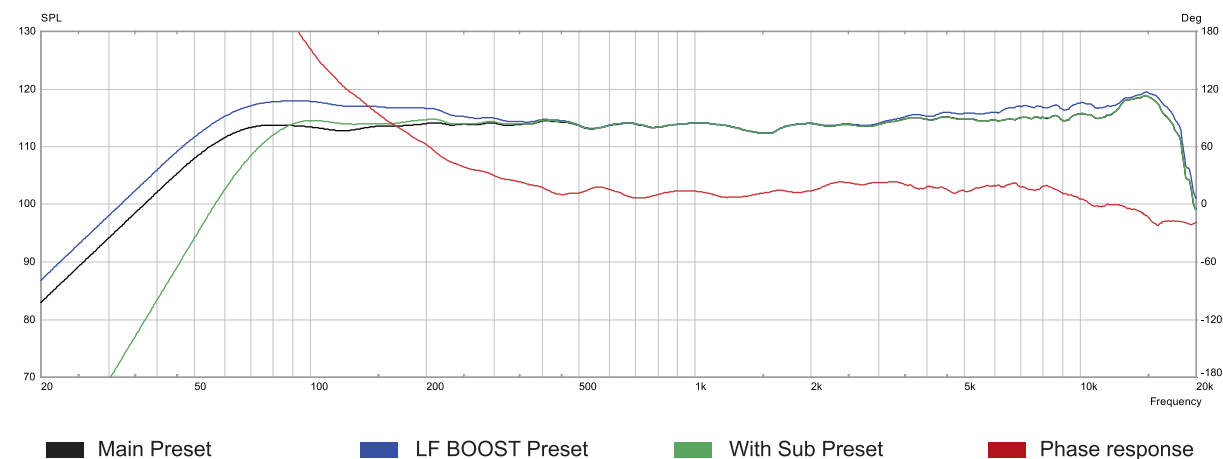
Performance



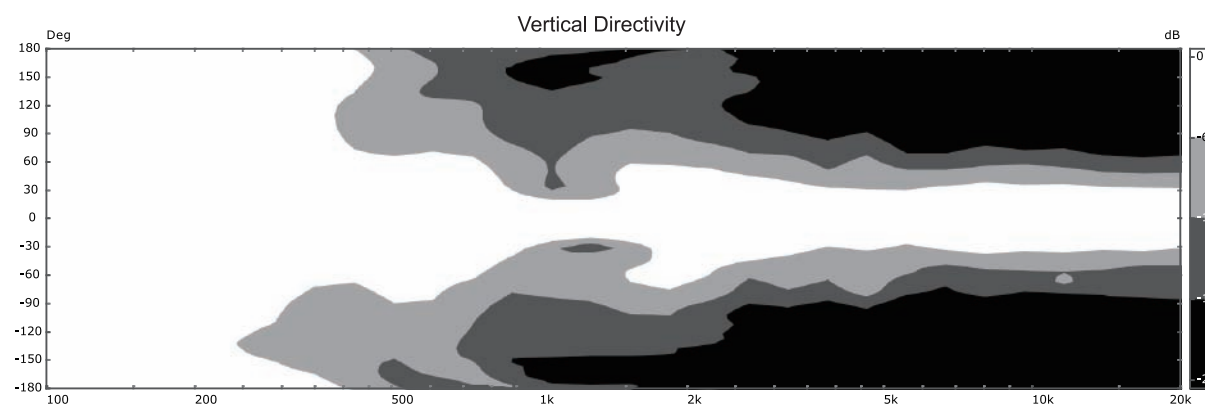
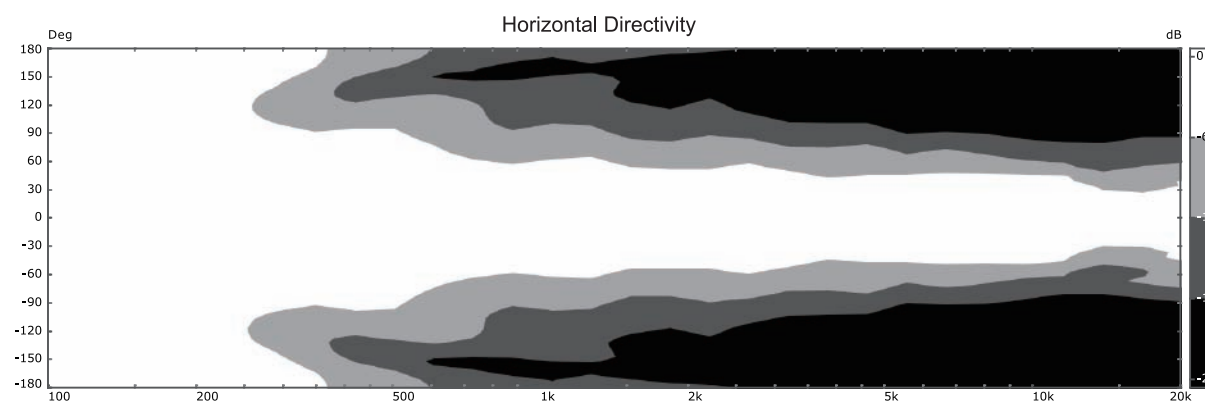
Wedding



### Frequency Response Graphs

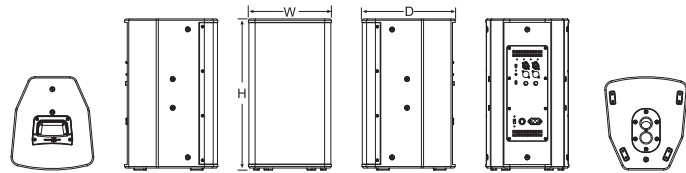
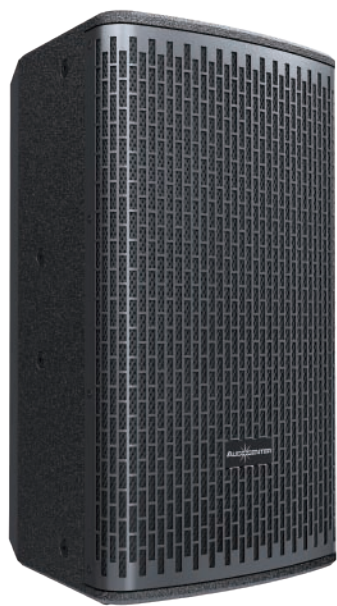


### Normalized Isobar Plot





## GT510A



Dimension(W×H×D):288×526×325mm

### Product Profile

The GT510A speaker has two combo inputs (2-way XLR and Mono jack 6.35). The CH A input can be switched between line balanced input or microphone input. The two audio sources can be internally mixed and output as a balanced output, transmitting the signal to multiple speakers for easy system signal cascading distribution.

The cabinet is made of high-quality wood, with an innovative and compact multi-purpose symmetrical cabinet structure CNC machined. This provides clear and powerful perfect sound quality. The base mounting holes are available in 0° or 10° options. According to different installation locations and methods, the cabinet can meet different sound reinforcement installation environments.

### Specification

<b>Type</b>	Active DSP-controlled full range loudspeaker
<b>Frequency Response(-10dB)</b>	55Hz-20kHz
<b>Maximum Calculated SPL/1M(Continuous/Peak)</b>	124dB/130dB
<b>HF</b>	Customized driver, 1.0" exit, 1.75" voice coil
<b>LF</b>	Customized 10" driver, 2.5" voice coil
<b>Horizontal Coverage</b>	90°/60°
<b>Vertical Coverage</b>	60°/90°
<b>DSP</b>	
<b>Processor</b>	48kHz signal sampling frequency, FIR filtering
<b>Presets</b>	MAIN, SPEECH, W/SUB
<b>AMPLIFIER</b>	
<b>Amplifier Circuitry</b>	Class D
<b>Power (RMS standards)</b>	1100W
<b>Peak Power</b>	2200W
<b>Frequency Response (1W 8Ω 2ch)</b>	20Hz-20kHz(±0.5dB)
<b>Intermodulation Distortion</b>	<0.05%
<b>Total Harmonic Distortion</b>	<0.05%
<b>Cooling System</b>	Cooling with fans, air convection
<b>Protection</b>	DC protection, short circuit protection, overheat protection, input overload protection, output overload protection, soft startup protection, overvoltage protection, undervoltage protection
<b>Output / Input</b>	
<b>Signal Input</b>	Female XLR(Mono jack 6.35)
<b>Signal Output</b>	Male XLR
<b>Power Input</b>	IEC power connector
<b>Working Voltage</b>	100V-130V~ or 220V-240V~(±10%,50/60Hz)
<b>Power consumption (1/8 output power)</b>	69W
<b>Cabinet</b>	
<b>Cabinet Material</b>	CNC machined plywood
<b>Coating</b>	Durable Polyurea Coating
<b>Cabinet Color</b>	Black is the default color. Contact Audiocenter for customization
<b>Grille</b>	Iron mesh
<b>Handles</b>	1 top
<b>Monitor Angle</b>	/
<b>Hanging Hardwares</b>	M8 screw
<b>Pole Mount</b>	Base hole Φ35mm, 0° or 10° options
<b>Speaker Dimension (W×H×D)</b>	288x526x325mm
<b>Carton Dimension (W×H×D)</b>	383x610x415mm
<b>Net Weight</b>	15.0 kg
<b>Shipping Weight</b>	18.0 kg

### Suggested Application



Multi-functional meeting room



House of worship



Museum



Lecture



DJ



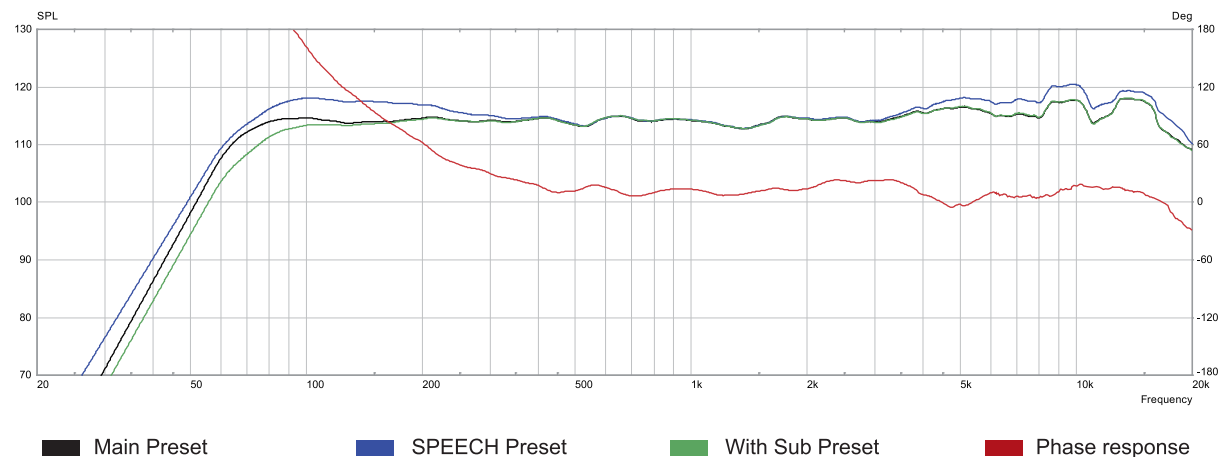
Wedding



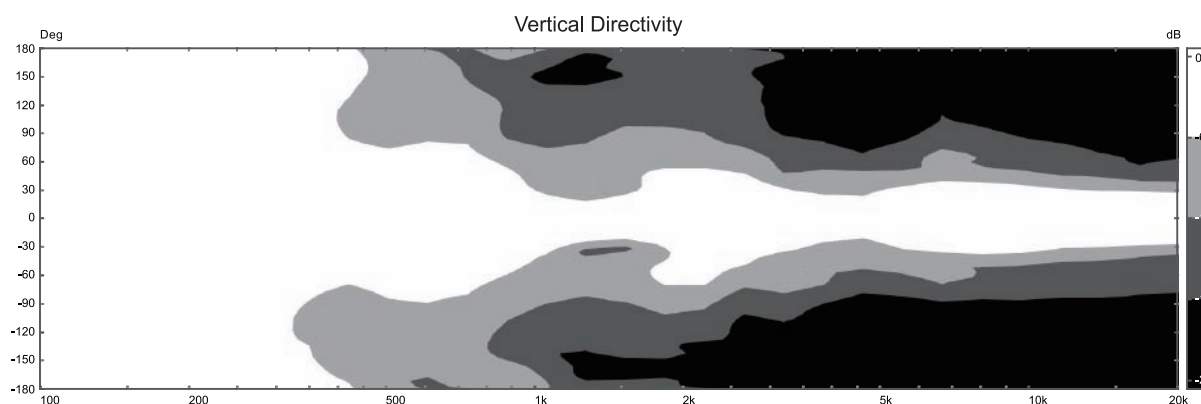
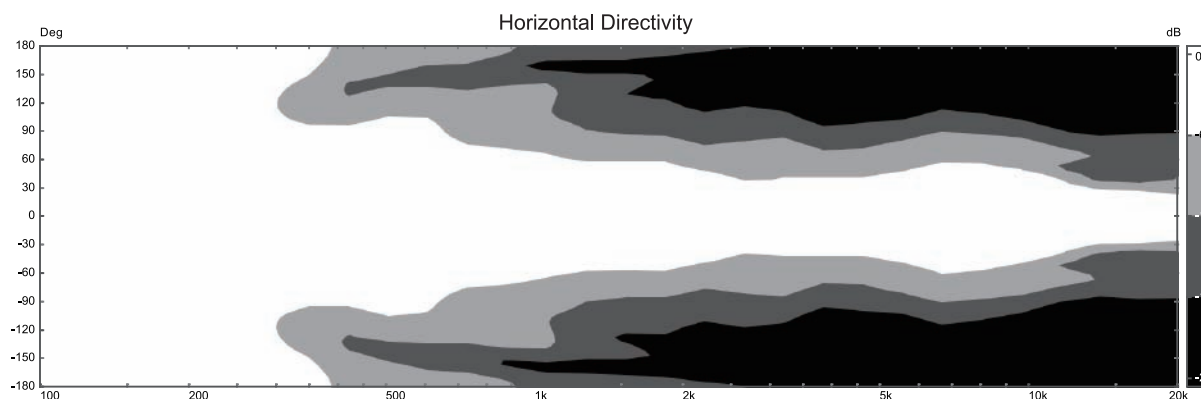
Performance



### Frequency Response Graphs

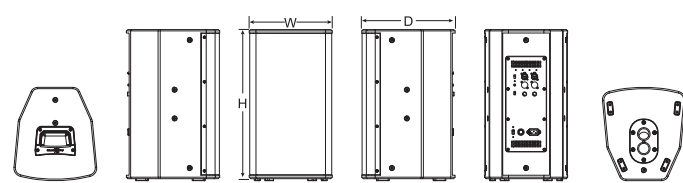
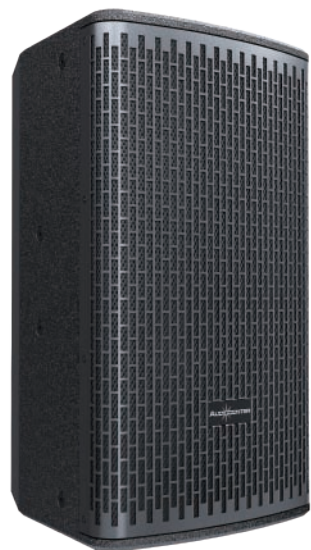


### Normalized Isobar Plot





## GT508A



Dimension(W×H×D):245×447×320mm

### Product Profile

The GT508A speaker has two combo inputs (2-way XLR and Mono jack 6.35). The CH A input can be switched between line balanced input or microphone input. The two audio sources can be internally mixed and output as a balanced output, transmitting the signal to multiple speakers for easy system signal cascading distribution.

The cabinet is made of high-quality wood, with an innovative and compact multi-purpose symmetrical cabinet structure CNC machined. This provides clear and powerful perfect sound quality. The base mounting holes are available in 0° or 10° options. According to different installation locations and methods, the cabinet can meet different sound reinforcement installation environments.

### Suggested Application



Multi-functional meeting room



House of worship



Museum



Lecture



DJ



Wedding



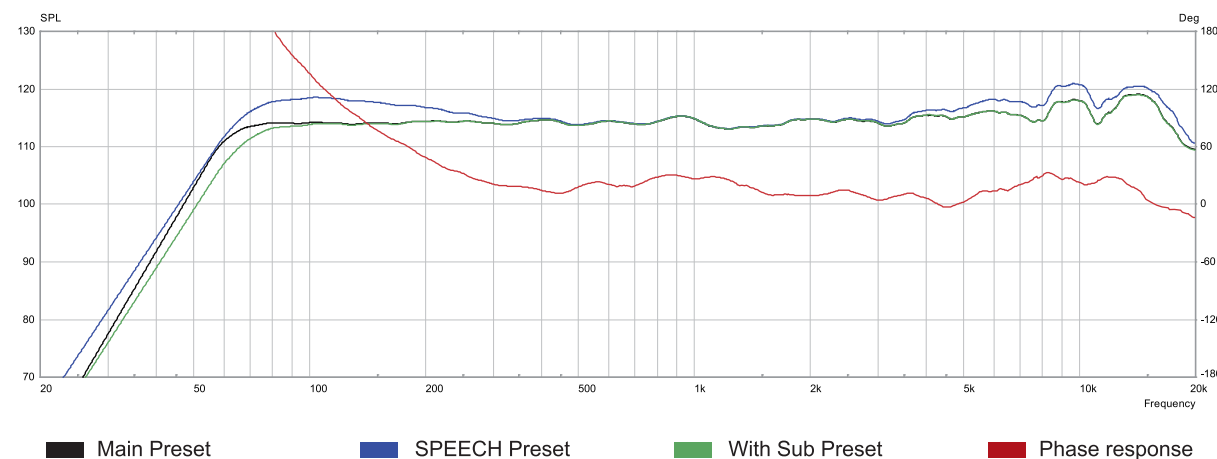
Performance

### Specification

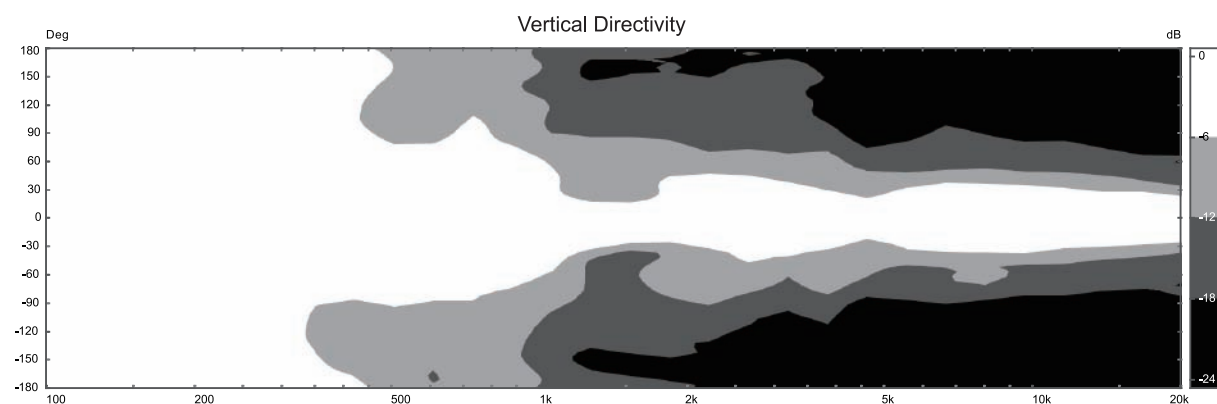
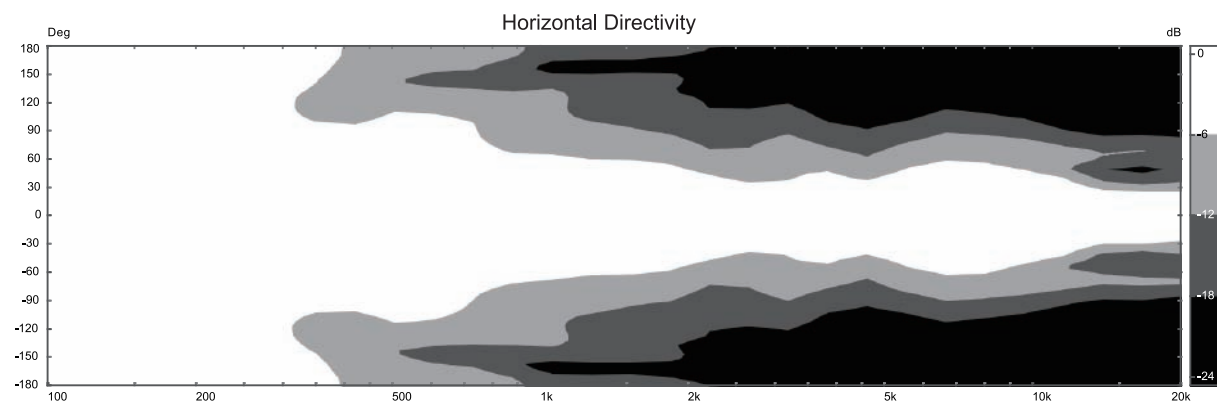
<b>Type</b>	Active DSP-controlled full range loudspeaker
<b>Frequency Response(-10dB)</b>	65Hz-20kHz
<b>Maximum Calculated SPL/1M(Continuous/Peak)</b>	119dB/125dB
<b>HF</b>	Customized driver, 1.0" exit, 1.75" voice coil
<b>LF</b>	Customized 8" driver, 2.0" voice coil
<b>Horizontal Coverage</b>	90°/60°
<b>Vertical Coverage</b>	60°/90°
<b>DSP</b>	
<b>Processor</b>	48kHz signal sampling frequency, FIR filtering
<b>Presets</b>	MAIN, SPEECH, W/SUB
<b>AMPLIFIER</b>	
<b>Amplifier Circuitry</b>	Class D
<b>Power (RMS standards)</b>	1100W
<b>Peak Power</b>	2200W
<b>Frequency Response (1W 8Ω 2ch)</b>	20Hz-20kHz(±0.5dB)
<b>Intermodulation Distortion</b>	<0.05%
<b>Total Harmonic Distortion</b>	<0.05%
<b>Cooling System</b>	Cooling with fans, air convection
<b>Protection</b>	DC protection, short circuit protection, overheat protection, input overload protection, output overload protection, soft startup protection, overvoltage protection, undervoltage protection
<b>Output / Input</b>	
<b>Signal Input</b>	Female XLR( Mono jack 6.35)
<b>Signal Output</b>	Male XLR
<b>Power Input</b>	IEC power connector
<b>Working Voltage</b>	100V-130V~ or 220V-240V~(±10%,50/60Hz)
<b>Power consumption (1/8 output power)</b>	50W
<b>Cabinet</b>	
<b>Cabinet Material</b>	CNC machined plywood
<b>Coating</b>	Durable Polyurea Coating
<b>Cabinet Color</b>	Black is the default color. Contact Audiocenter for customization
<b>Grille</b>	Iron mesh
<b>Handles</b>	1 top
<b>Monitor Angle</b>	/
<b>Hanging Hardwares</b>	M8 screw
<b>Pole Mount</b>	Base hole Φ35mm, 0° or 10° options
<b>Speaker Dimension (W×H×D)</b>	245x447x320mm
<b>Carton Dimension (W×H×D)</b>	336x531x410mm
<b>Net Weight</b>	13.0 kg
<b>Shipping Weight</b>	15.0 kg



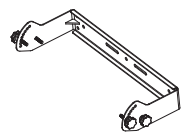
### Frequency Response Graphs



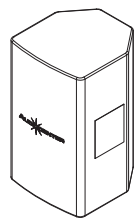
### Normalized Isobar Plot



**Accessories**



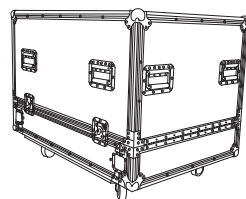
**Horizontal U bracket**  
Bearing 60KG



**Cover**

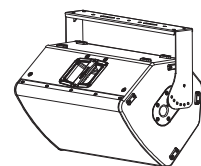
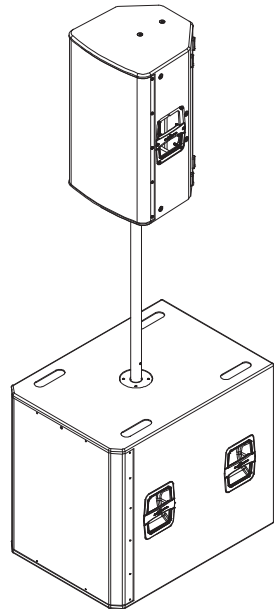
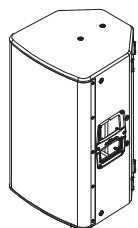
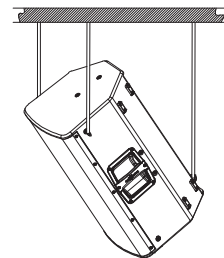
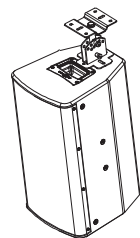
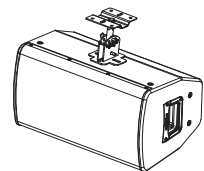


**Pole bar**  
Bearing 50KG



**Flightcase**  
For 2 cabinets,  
with 100mm wheels

**Installations**



**GT Active Series Specifications**

SPECIFICATIONS		GT515A	GT512A	GT510A	GT508A
Frequency Response(-10dB)		40Hz-20kHz	42Hz-20kHz	55Hz-20kHz	65Hz-20kHz
Directivity -6dB(H°×V°)		90°× 60°/60° × 90°			
Maximum Calculated SPL/1M	Continuous	130dB	128dB	124dB	119dB
	Program	133dB	131dB	127dB	122dB
	Peak	136dB	134dB	130dB	125dB
Drivers	HF	Customized driver, 1.75" voice coil, 1.0" exit			
	LF	Customized 15" driver, 3.0" voice coil	Customized 12" driver, 3.0" voice coil	Customized 10" driver, 2.5" voice coil	Customized 8" driver, 2.0" voice coil

DSP	
Processor	48kHz signal sampling frequency, FIR filtering
Presets	MAIN, LF BOOST, W/SUB      MAIN, SPEECH, W/SUB

AMPLIFIER	
Amplifier	Class D
Power(RMS standards)	1100W
Peak Power	2200W
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/Output Connector	Female XLR (Mono jack 6.35) for input, Male XLR for output
Power Input Connector	IEC power connector
Working Voltage	100V-130V~ or 220V-240V~(±10%, 50/60Hz)
Power consumption (1/8 output power)	95W      95W      69W      50W

CABINET	
Cabinet Material	CNC machined plywood
Coating	Durable Polyurea Coating
Cabinet Color	Black is the default color. Contact Audiocenter for customization
Grille	Iron mesh
Handles	2 side      1 top
Monitor Angle	Symmetrical 45° monitoring Angle      /
Hanging Hardwares	M8 screw
Pole Mount	1 base hole Φ35mm on the bottom, 0° or 10° options
Optional Accessories	Horizontal U bracket / Cover / Pole bar /Flightcase
Speaker Dimension(W×H×D)	421×696×416mm      355×599×349mm      288×526×325mm      245×447×320mm
Carton Dimensions(W×H×D)	516×785×516mm      446×688×446mm      383×610×415mm      336×531×410mm
Net Weight	24.0 kg      21.0 kg      15.0 kg      13.0 kg
Shipping Weight	28.0 kg      24.0 kg      18.0 kg      15.0 kg
Technical Support and After-sales Service	Global application support team