

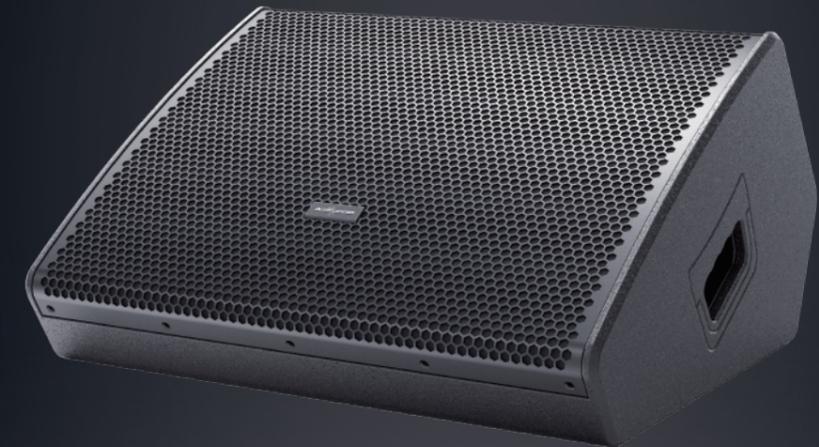
**Audiocenter**

Dynamic Audio Solutions

**BrainCore™**  
Technology Inside

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

*Together we are stronger*



## WM3210A

### Active Wedge Monitor

WM3210A is Audiocenter's latest active DSP controlled wedge monitor speaker with high-output, reliability and supreme performance.

WM3210A is specially designed for touring performance and fixed installation like Live sound reinforcement floor monitor, Touring systems, Clubs, Auditoriums, Theatres and Houses of Worship.





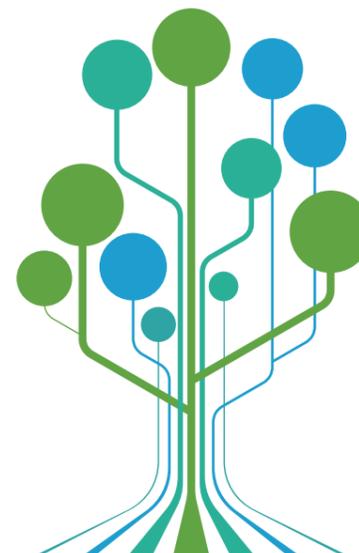
**Joan La Roda**  
Audiocenter R&D Director

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

- ① 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.
- ① To create stylish and compact loudspeaker designs with expert craftsmanship, high sound pressure levels, and versatile applications
- ① Serving the largest customer base with the best products
- ① Allow more people to enjoy the latest and most advanced technology
- ① 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.



#### Class D Amplifier

WM3210A adopts customized Class D Amplifier together with switch mode power supply technology, which ensure the system for high efficiency, exquisite and compact outlook, advanced cooling effect and high quality.



#### Advanced Cooling System

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



#### Symmetrical Wave Guide

Symmetrical wave guide makes the penetration of HF stronger, and gets cleaner and clearer sound.



#### Customized ProDriver

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



#### Active Speaker DSP

3 different presets: FLAT, VOCAL, DRUM, users can choose the preset according to their needs via the switch on the back panel.



#### Sleep mode

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



#### Solid Wood Construction

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



#### Front loaded cabinet design

Front loaded cabinet design lowers the limit of low frequency. The cabinet is very small and compact but can reach very high SPL.

## 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.



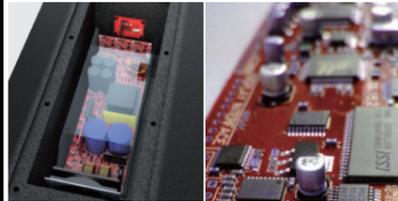
### Advanced Digital FIR Filter Technology

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 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 maximum temperature rise is 30°).

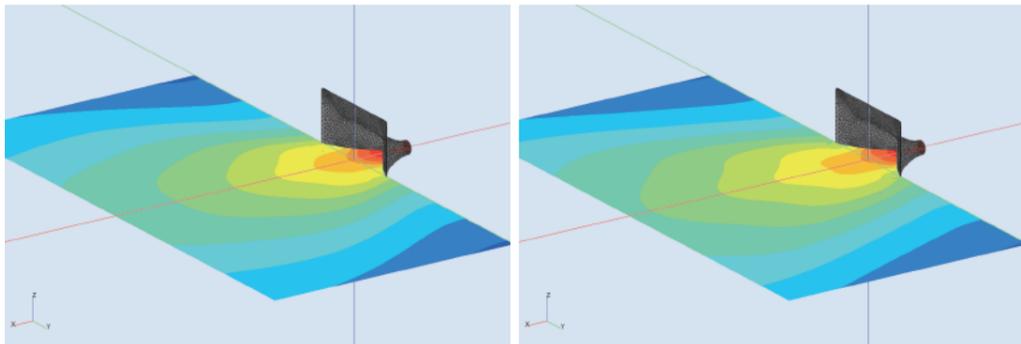
## AUDIOCENTER Horn Technology



The horn used in WM3210A 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.

WM3210A employs a unique horn design, with strong high-frequency penetration and transparency while providing a smooth coverage without sidelobes.

The high-frequency horn provides a coverage angle of 60°x90°.



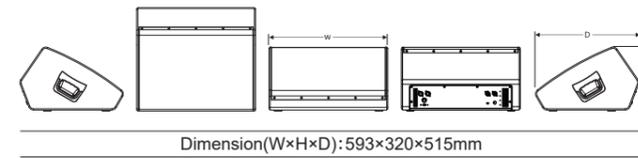
## WM3210A Active Wedge Monitor

WM3210A is Audiocenter's latest active DSP controlled wedge monitor speaker with high-output, reliability and supreme performance.

WM3210A is perfectly integrated with BrainCore™ technology, with its advanced technology and scientific methodology, BrainCore™ analyses and processes the input signal, DSP module, Class D amplifier and loudspeaker optimally, achieving smooth transitions between the LF and HF, excellent frequency response and audio reproduction even at high levels of SPL.

The wave guide of WM3210A provides a perfect coverage angle of 60° x 90°, which can achieve symmetrical sound field coverage of large and medium-sized shows and live bands. WM3210A can fulfill the requirements of artists with excellent performance and high audio reproduction.

WM3210A is specially designed for touring performance and fixed installation like Live sound reinforcement floor monitor, Touring systems, Clubs, Auditoriums, Theatres and Houses of Worship.

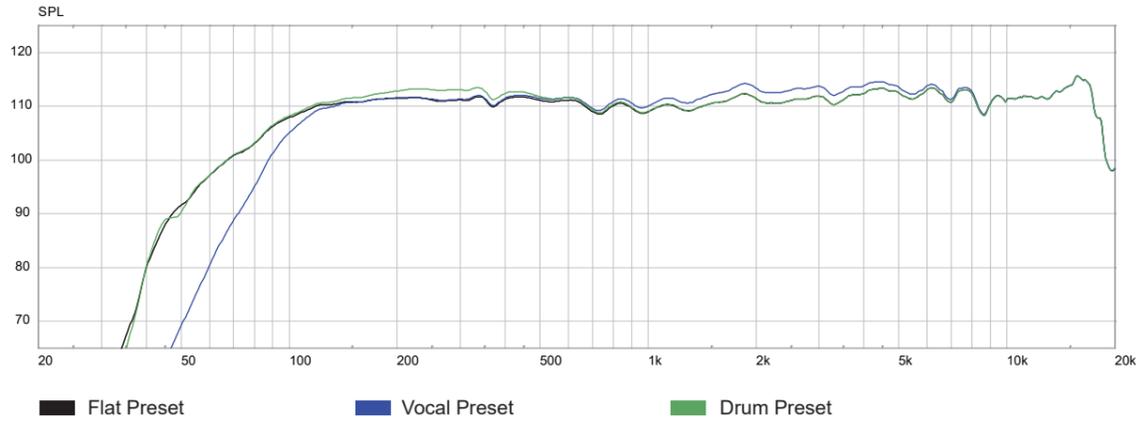


### SPECIFICATIONS

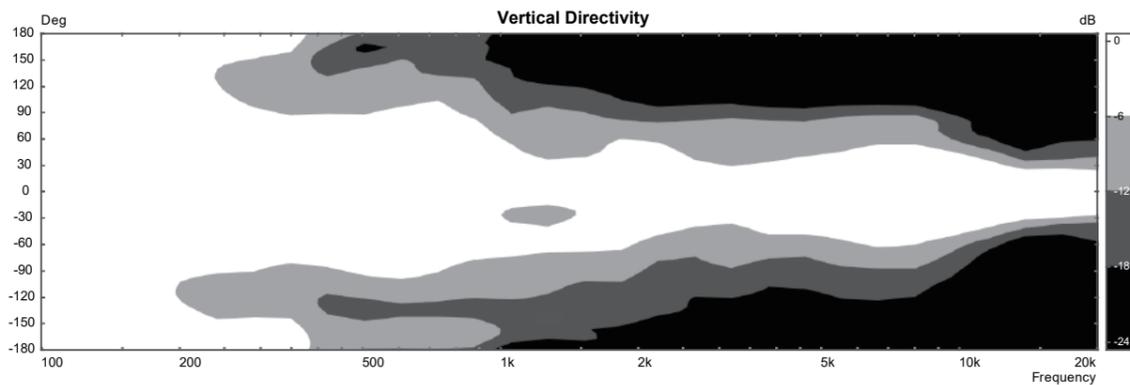
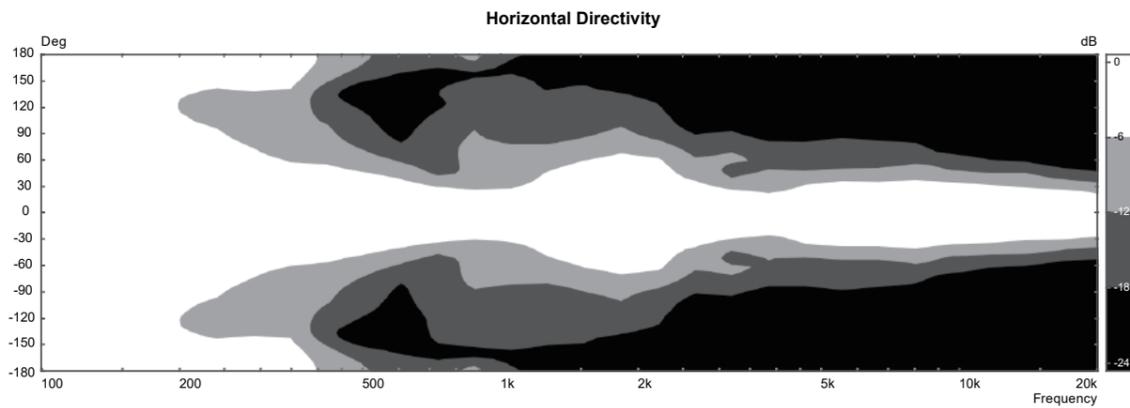
Type	Active DSP Wedge Monitor
Frequency Response(-10dB)	55Hz-20kHz
Maximum Calculated SPL/1M(Continuous/Peak)	122dB/128dB
HF Driver	Customized driver, 1.0"exit, 1.75" voice coil
LF Driver	Customized 2x10" driver, 2.0" voice coil
Coverage Angle	60° x 90°
DSP	
Processor	48kHz signal sampling frequency, FIR filtering
Presets	FLAT, VOCAL, DRUM
<b>AMPLIFIER</b>	
Amplifier Circuitry	Class D
Power (RMS standards)	1100W
Peak Power	2200W
Frequency Response	20Hz-20kHz(±0.5dB)
	<0.05%
	<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	Power connector
Power Output	Power connector
AC Power Operating Range	100V~130V or 220V~240V (±10%,50/60Hz)
Power consumption (1/8 output power)	82W
<b>CABINET</b>	
Cabinet Material	CNC made of excellent wood
Cabinet Color	Black is standard and default color, Contact Audiocenter for customization
Grille	Iron mesh
Handles	2 side
Cabinet monitoring Angle	30°
Speaker Dimension (W×H×D)	593x320x515mm
Carton Dimension (W×H×D)	571x684x418mm
Net Weight	19.0kg
Shipping Weight	22.0kg



### Frequency Response Graphs



### Normalized Isobar Plot



### WM3210A Active DSP Wedge Monitor Specifications

SPECIFICATIONS		WM3210A
Frequency Response(-10dB)		55Hz-20kHz
Directivity -6dB(H°xV°)		60° x 90°
Maximum Calculated SPL/1M	Continuous	122dB
	Program	125dB
	Peak	128dB
Drivers	HF	Customized driver, 1.0" exit, 1.75" voice coil
	LF	Customized 2x10" driver, 2.0" voice coil
DSP		
Processor		48kHz signal sampling frequency, FIR filtering
Presets		FLAT, VOCAL, DRUM
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 for input, Male XLR for output
Power Input/Output Connector		Power connector
Working Voltage		100V-130V~ or 220V-240V~(±10%,50/60Hz)
Power consumption (1/8 output power)		82W
CABINET		
Cabinet Material		CNC machined plywood
Cabinet Color		Black is the default color. Contact Audiocenter for customization
Grille		Iron mesh
Handles		2 side
Cabinet Monitor Angle		30°
Optional Accessories		Cover / Flightcase
Speaker Dimension(W×H×D)		593×320×515mm
Carton Dimensions(W×H×D)		571×684×418mm
Net Weight		19.0 kg
Shipping Weight		22.0 kg
Technical Support and After-sales Service		Global application support team

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