AX2022

AXIOM

COMPACT POWER.

UNCOMPROMISED CLARITY

AX2022A / AX2022P

Dual 10" Very High Output Line Array Element

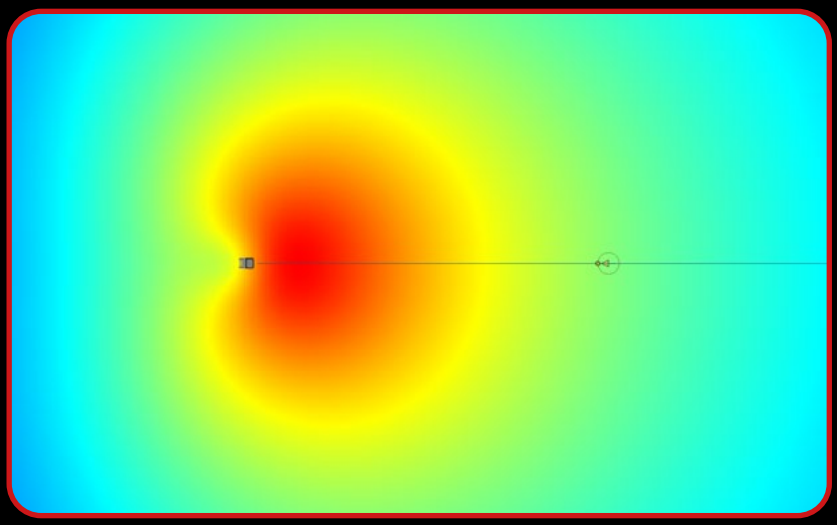
AX2022A - Powered
AX2022P - Passive

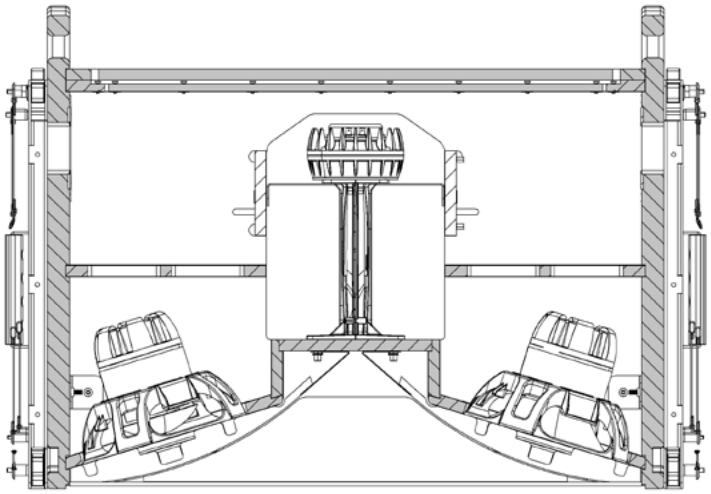
The AX2022 system represents the highest output-to-size ratio within the AXIOM line array portfolio. Designed for demanding touring productions and large-scale installations, it combines powerful acoustic output with precise broadband directivity control.

The system architecture is based on a three-way configuration featuring dual 10-inch neodymium transducers and dual coaxial MF/HF compression drivers operating through extended waveguide technology.This configuration delivers exceptional vocal clarity, controlled dispersion, and consistent coverage from the front rows to the farthest listening positions.The compact enclosure, built from reinforced phenolic birch plywood, ensures durability in touring environments while maintaining the flexibility required for fixed installations.

Gradient · DSP 5th SHARC+ · AUDIA · 70 AES 70 · milan AVB-Milan · 67 AES 67 · FIR Filters · Class D Amp · PFC · EASE Focus3 · EASE GLL files

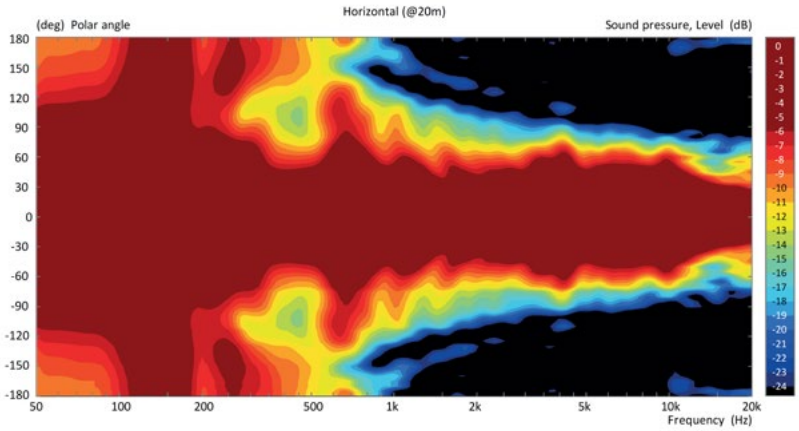
Second-generation directive control technology is employed to manage rear-facing energy, improving rejection and minimizing unwanted interactions with reflective surfaces and adjacent array elements.



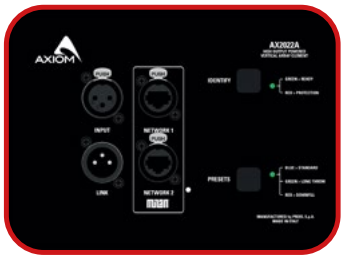


Next-generation coaxial ring radiator architecture derived from large-format compression driver design. A single acoustic center ensures extended bandwidth control and superior phase coherence.

Constructed from phenolic birch plywood, the AX2022A features a robust enclosure developed to withstand the demands of both touring and permanent installation environments.



Dual 10" ultra-high-performance woofers with advanced dual gap technology, coming from larger-format designs, deliver fast transients, exceptional output, and low distortion. Among the most powerful in their class, they ensure a tight, controlled low-end with precise phase coherence and excursion linearity.



Integrated 5th-gen SHARC+ DSP (32-bit/24-bit) and 121 dB dynamic range, available onboard in **AX2022A** and via Q-NEX+ amplification for **AX2022P**.

Dual Gigabit ports support AVB-Milan audio networking with **AES70** control, all managed through the AUDIA unified software platform.

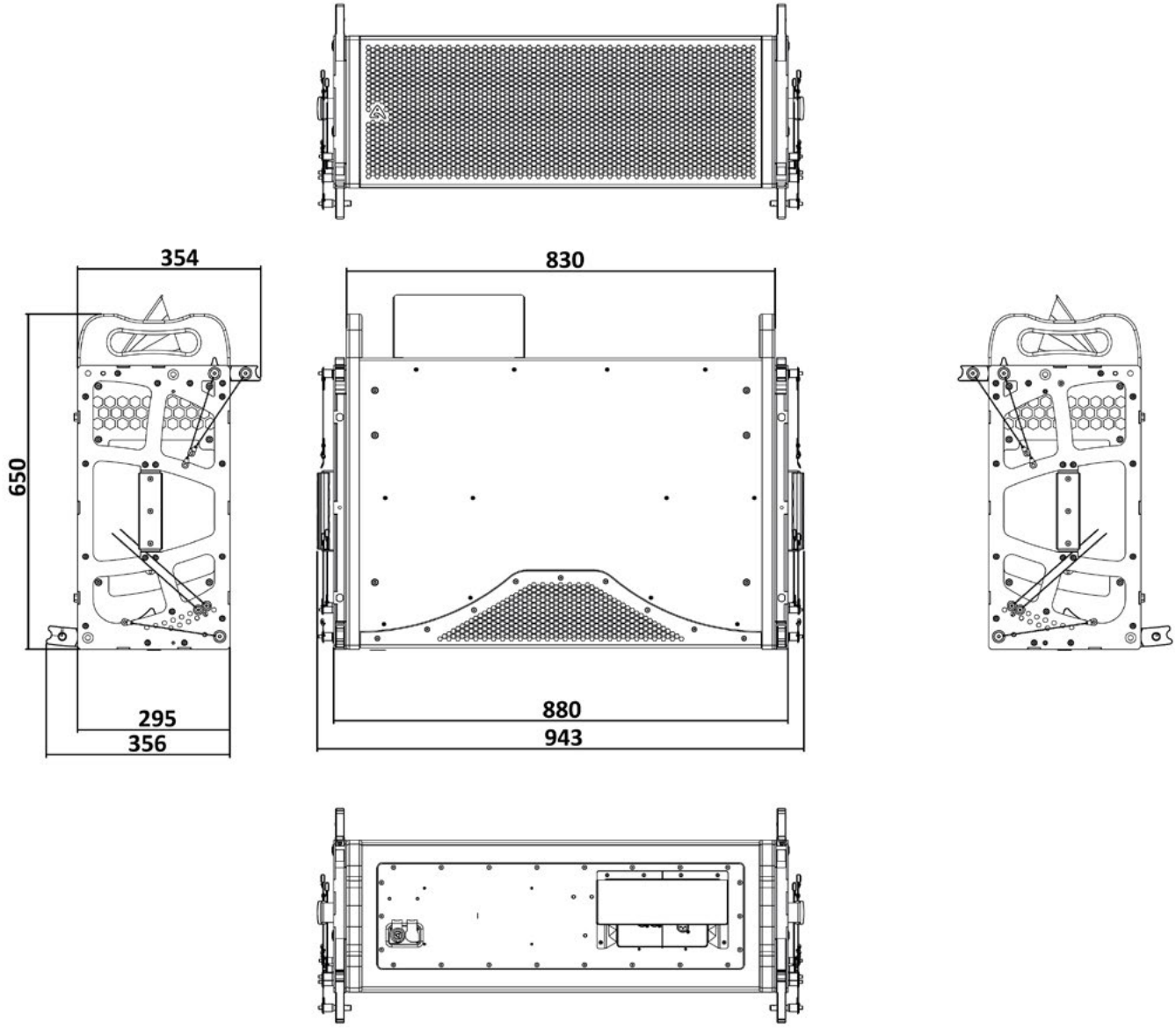
AX2022A is provided with a 4000 W Class-D Power module, SMPS and PFC, featuring high efficiency, compact design, and full dynamic headroom.

AX2022A and Q-NEX+ powered **AX2022P** systems integrate seamlessly within the same AUDIA control environment.

TECHNICAL SPECIFICATIONS

	AX2022A	AX2022P
Systemn's Acoustic Priciple	Line Array Element, LF Broadband directivity control	
Frequency Response	65 Hz - 18kHz (Processed)	
Horizontal Coverage Angle	100° Avg. 400Hz - 18kHz	160° Avg. 65 Hz. - 400 Hz.
Vertical Coverage Angle	Array Size dependent	
Nominal Impedance	N/A	8 Ω + 8 Ω
Max peak SPL	146 dB @ 1m (AES 75 Standard)	
TRANSDUCER		
LF Transducer	Dual 10" Dual Gap, 3.5" (88mm) ISV, Neodymium, 16Ω each, paralleled	
HF Transducer	Two Coaxial 2-Way, VC 3" + 2" (Mid + High), 16Ω each, paralleled	
ELECTRICAL		
Active - Amplifier Output Power	2000W + 2000W (Class D cont. Pwr.)	N/A
Passive - Input Power Ratin (AES)		1600W LF + 280W MHF
Passive - Input Power Handling (Prg)		3200W LF + 560W MHF
Amplifier Type	Class D with SMPS and PFC	Q-NEX20.4+ (Rack Power Amplifier)
Mains Voltage Range (Vac)	100 - 240V 50/60Hz with PFC	90V - 265V AC, 50Hz-60Hz
SIGNALS		
Audio Networking	AVB - Milan	
Signal Processing	5th-generation SHARC+, 32-bit floating-point DSP	
Remote Control	AUDIA software with AES70 device control standard	
ENCLOSURE & CONSTRUCTION		
Dimensions (WxHxD) mm	942mm (W) x 295mm (H) x 650mm (D)	
Net Weight	58 Kg (127.8 lbs.)	55 Kg (121.3 lbs.)
Enclosure	30mm & 15mm, Reinforced Phenolic Birch Plywood	
Paint	Black, High resistance, water based paint	
Rigging	External Frame suspension system, back hinge	
Mains connectors	PowerCON True1™	N/A

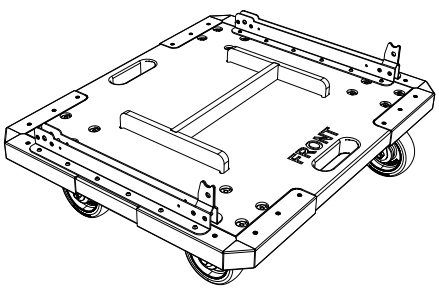
MECHANICAL DRAWING



ACESSORIES

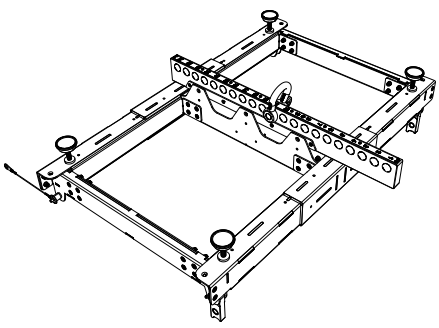
AXSKATE2022B

Transport dolly for AX2022A/P Stacks of up to 4 cabinets



KPTAX2022

Flybar for AX2022A/P arrays, for suspension of flown systems and ground-stacked configurations. Supports up to 16 cabinets



SW2421CFA / SW2421CFP

24" + 21" Very High Output Flyable Multi-Pattern Gradient Subwoofer

SW2421CFA: Flyable Sub - Active
SW2421CFP: Flyable Sub - Passive
SW2421CA: Floor Sub - Active
SW2421CP: Floor Sub - Passive

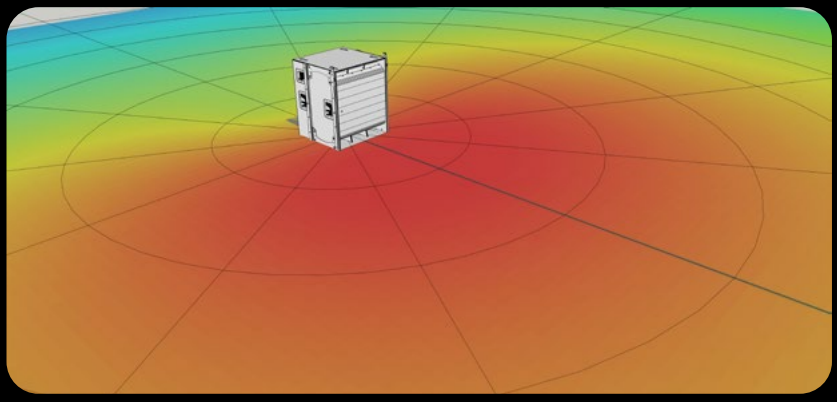
The SW2421CF system is a very high-output 24" + 21" flyable native cardioid subwoofer designed to extend system bandwidth while maintaining precise low-frequency directivity. Engineered for seamless integration with AX2022 line array systems, it enables full-range performance with controlled dispersion down to the lowest frequencies

Its acoustic design combines high-efficiency transducers with an optimized enclosure and loading architecture to deliver deep, controlled low-frequency reproduction with exceptional output capability.

Gradient | DSP 5th SHARC+ | AUDIA | 70 AES 70 | AVB-Milan | 67 AES 67 | FIR Filters | Class D Amp | PFC | EASE Focus3 | EASE GLL files

Unlike traditional cardioid systems that require specific cabinet positioning or array configurations, the SW2421CP achieves directional control within a single enclosure.

This simplifies deployment, improves consistency, and enables rapid mode switching without physical reconfiguration.

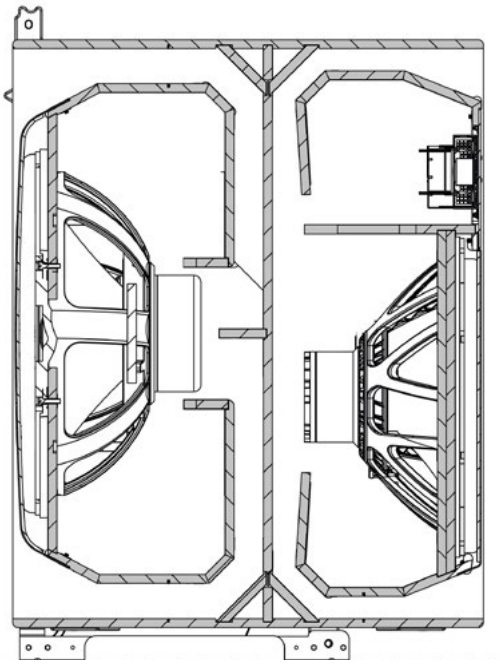


The 24-inch driver serves as the primary low-frequency radiator, optimized for maximum displacement and acoustic output at the lowest frequencies.

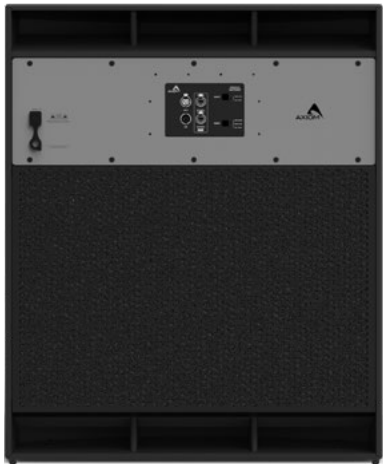
The 21-inch driver operates as an active rear element, and through precise amplitude, phase, and delay management between the two transducers, directional radiation patterns are generated and controlled entirely through DSP presets.

The interaction between these transducers generates directional radiation patterns fully controlled by DSP presets. Three operating modes are available:

1. **Cardioid** for maximum rear rejection and stage control
2. **Hyper** (Hypercardioid) for narrower forward coverage with stronger focus and moderate rear energy
3. **End Fire** for maximum forward summation and output, suited to high-impact applications.

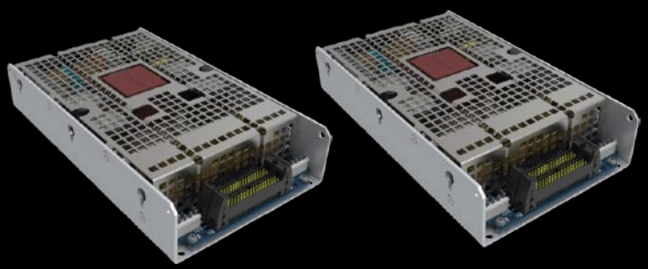


The enclosure and internal loading are engineered to support very high acoustic pressure levels with minimal distortion while preserving transient response and definition across the operating bandwidth.



Integrated 5th-gen SHARC+ DSP (32-bit/24-bit) and 121 dB dynamic range, available onboard in **SW2421CFA** and via Q-NEX+ amplification for **SW2421CFP**.

Dual Gigabit ports support AVB-Milan audio networking with **AES70** control, all managed through the AUDIA unified software platform



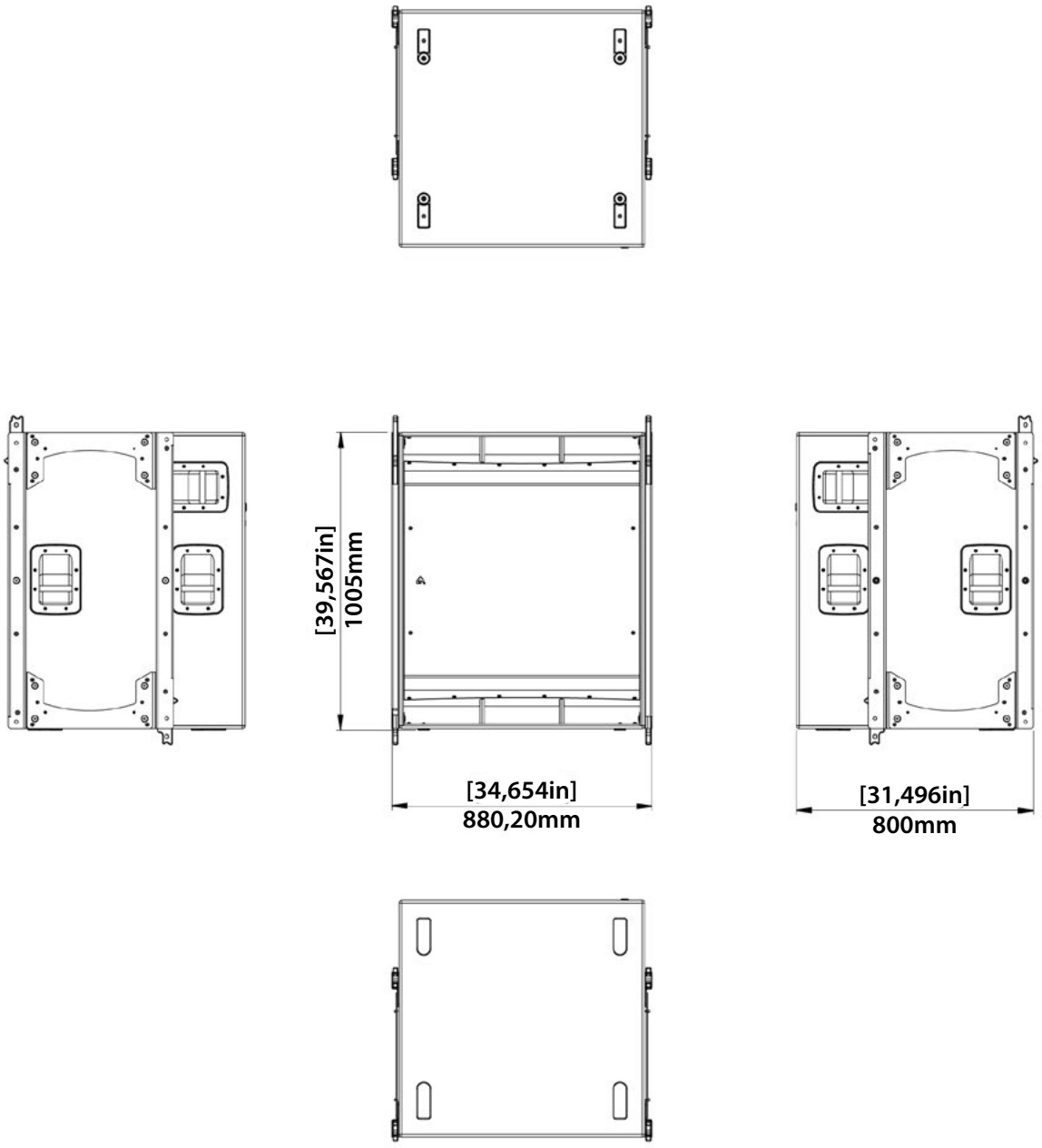
SW2421CFA features two 4000 W Class-D power modules with SMPS and PFC, delivering high efficiency, compact design, and full dynamic headroom, for a total of 8000 W continuous power.

SW2421CFA and Q-NEX+ powered **SW2421CFP** systems integrate seamlessly within the same AUDIA control environment.

TECHNICAL SPECIFICATIONS

SYSTEM	SW2421CA	SW2421CP
Systemn's Acoustic Priciple	Multipattern Gradient Subwoofer	
Frequency Response	31 Hz - 90kHz (Processed)	
Polar Pattern	Cardioid - Hyper - End-fire	
Nominal Impedance	N/A	8 Ω + 8 Ω
Max peak SPL	146 dB @ 1m (AES 75 Standard)	
TRANSDUCER		
Front Woofer	24" Cone - 6" Voice coil, Neodymium Subwoofer, 4Ω	
Back Woofer	21" Cone - 4,5" Tetracoil, Neodymium Subwoofer, 4Ω	
ELECTRICAL		
Active - Amplifier Output Power	4000W + 4000W (Class D cont. Pwr.)	N/A
Passive - Input Power Ratin (AES)		2500W Front + 1800W Back
Passive - Input Power Handling (Prg)		5000W Front + 4000W Back
Amplifier Type	Two Units - Class D with SMPS and PFC	Q-NEX20.4+ (Rack Power Amplifier)
Mains Voltage Range (Vac)	100 - 240V 50/60Hz with PFC	90V - 265V AC, 50Hz-60Hz
SIGNALS		
Audio Networking	AVB - Milan	
Signal Processing	5th-generation SHARC+, 32-bit floating-point DSP	
Remote Control	AUDIA software with AES70 device control standard	
ENCLOSURE & CONSTRUCTION		
Dimensions (WxHxD) mm	830mm (W) x 1013mm (H) x 800mm (D)	
Net Weight	135 Kg	129 Kg
Enclosure	18mm, Reinforced Phenolic Birch Plywood	
Paint	Black, High resistance, water based paint	
Rigging	External Frame suspension system, back hinge (only Flyable ver. SW2421C FA/FP)	
Mains connectors	PowerCON True1™	N/A

MECHANICAL DRAWING



ACCESSORIES

AXSKATE2022B

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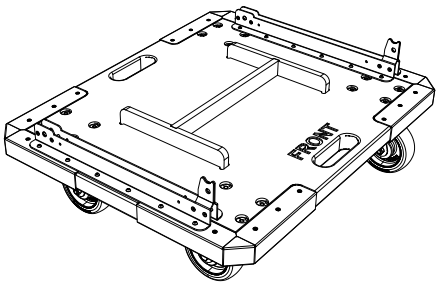

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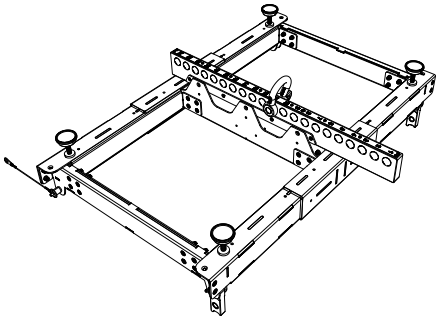


Q-NEX+

Advanced DSP Amplifiers with AVB-Milan Networking

Q-NEX10.4+ : 4 x 2500W model
Q-NEX20.4+: 4 x 5000W model

Q-NEX+ amplifiers are high-performance 4-channel power amplifiers with advanced DSP, designed for large touring systems and high-profile installations. Optimized for the AXIOM product range, they provide processing, networking, and power delivery for passive loudspeaker systems. When used with AUDIA control software, Q-NEX+ amplifiers can operate alongside powered AXIOM loudspeakers on the same network, enabling unified system management and consistent control across passive and active configurations.

When used with AUDIA control software, Q-NEX+ amplifiers can operate alongside powered AXIOM loudspeakers on the same network, enabling unified system management and consistent control across passive and active configurations.

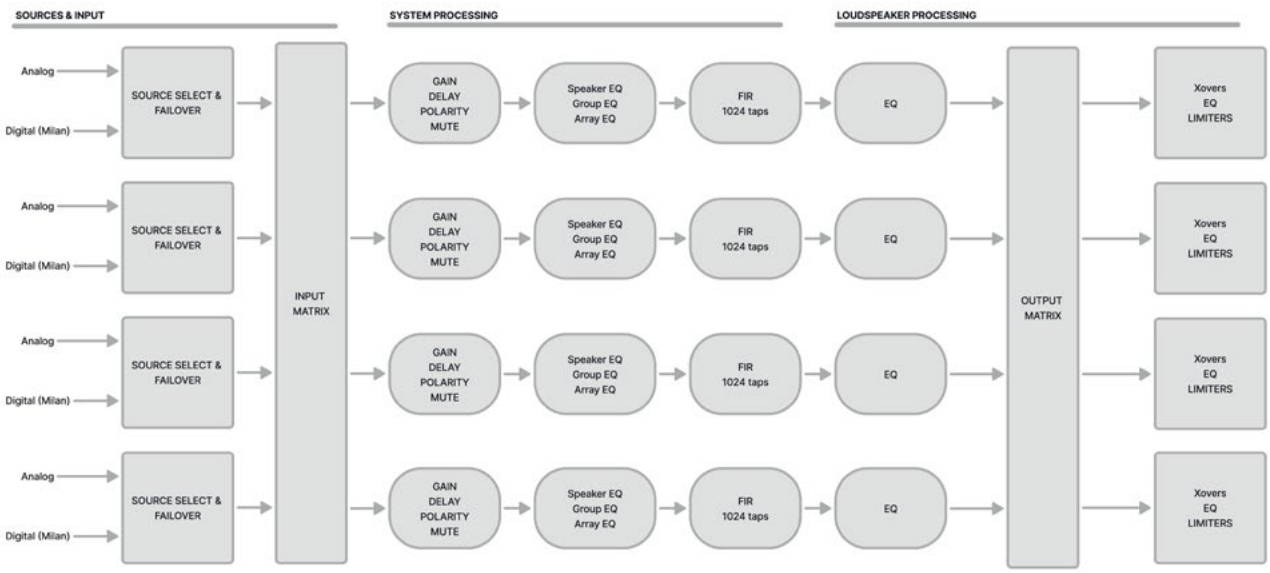
Q-NEX+ amplifiers use high-efficiency Class D topology with Switch Mode Power Supply, delivering up to 20,000 W (Q-NEX+ 20.4) or 10,000 W (Q-NEX+ 10.4) across four channels. The PFC-equipped power supply ensures stable operation under varying mains conditions.

An advanced Power Management system dynamically distributes power across channels, with the ability to deliver maximum output to a single channel when required.

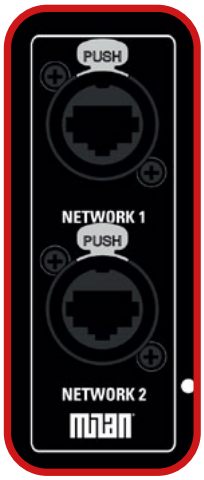
With over 90% efficiency, compact size, and low heat dissipation, Q-NEX+ amplifiers reduce energy consumption and operating costs, particularly in large-scale systems.

A comprehensive protection system includes soft-start, transient suppression, thermal and DC protection, short-circuit and load monitoring, power supply protection, and clip limiting.

The inverted chassis design minimizes dust accumulation, while removable filters simplify maintenance and extend operational life.



Q-NEX+ processing is based on a fifth-generation SHARC+ floating-point DSP platform with 32-bit AD converters and 121 dB dynamic range, delivering high signal integrity and precise control.The system provides four independent processing channels with full loudspeaker tuning and group-level control.Processing functions include EQ, delay, gain, polarity, mute, and advanced filtering.



Dual Gigabit Ethernet ports support AVB-Milan audio networking at 96/48 kHz, ensuring deterministic, low-latency audio transport.

Each input channel supports automatic failover between analog and network sources.

Control and device management are handled via AES70 over Ethernet, enabling full system configuration and monitoring within a unified network infrastructure.

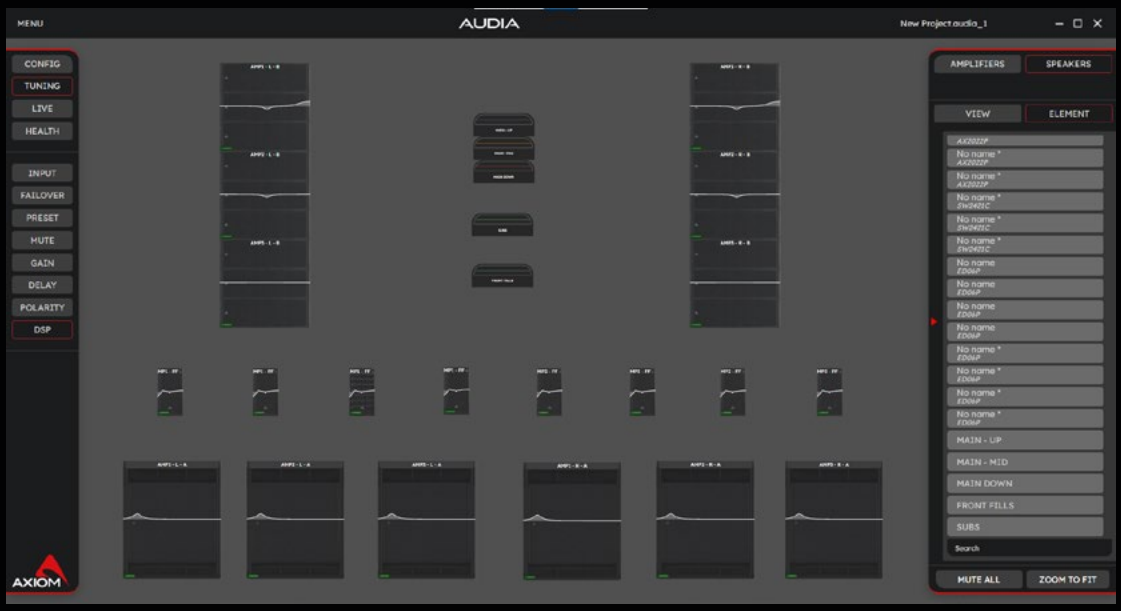
The AUDIA software platform provides centralized control, allowing Q-NEX+ amplifiers and AXIOM active systems to coexist within the same workspace for consistent operation and streamlined workflows.

Q-NEX+ TECHNICAL SPECIFICATIONS		
	Q-NEX10.4+	**Q-NEX20.4+**
Number of channels	4	4
Total output power	10000 W	20000 W
Output Power* (All ch driven/single ch)		
2 ohms	4x 2500 / 1x 2500 W	4x 5000 / 1x 5000 W
2.67 ohms	4x 2500 / 1x 3300 W	4x 5000 / 1x 6700 W
4 ohms	4x 2500 / 1x 2500 W	4x 5000 / 1x 6000 W
8 ohms	4x 1250 / 1x 1300 W	4x 2500 / 1x 3000 W
4 ohms Bridged	2x 5000 W	2x 10000 W
8 ohms Bridged	2x 5000 W	2x 10000 W
Hi-Z 100V	4x 2500 / 1x 2500 W	4x 5000 / 1x 5000 W
Hi-Z 70V	4x 2500 / 1x 2500 W	4x 3500 / 1x 3500 W
Power Supply	90V - 265V AC, 50Hz-60Hz	
Dimensions W x H x D	483x89x388 mm (19"x3.5"x14")	
Weight Net (kg-Lb)	7 kg (15.4 lbs)	9 kg (19.8 lbs)

** IEC filtered pink noise signal (40Hz-5kHz, 12dB crest factor)*

AUDIA

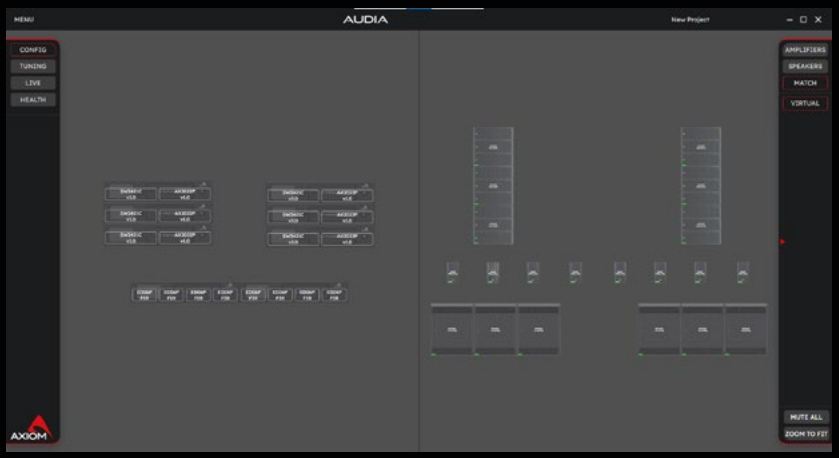
REMOTE CONTROL SOFTWARE



AUDIA is AXIOM's next-generation control platform, designed to manage complex audio systems through a unified environment that integrates device control, signal processing, and networked audio distribution.

Built around high-performance SHARC+ 5th generation DSP architecture, AUDIA introduces a dual-layer approach where control and audio transport coexist over Ethernet, enabling scalable and future-ready system design.

AUDIA introduces a loudspeaker-centric control philosophy where every element, powered or passive, is treated as part of a single, coherent system.



Two Views. One System.

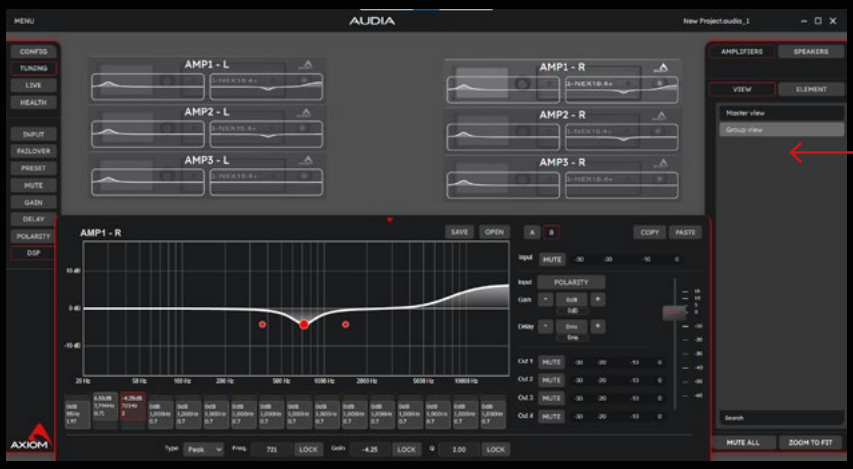
Switch seamlessly between loudspeaker and amplifier domains depending on the workflow.

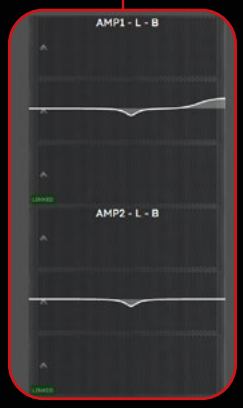
Consistent User Experience

No operational difference between powered and passive systems. Engineered FlexibilityFrom intuitive system tuning to detailed infrastructure control.

Alternatively, the amplifier view provides full access to the underlying hardware structure for advanced configuration and system-level control.

CONTROL THE LOUDSPEAKER
NOT JUST THE AMPLIFIER





AUDIA introduces a flexible control paradigm where engineers can operate either in a loudspeaker-centric or amplifier-centric environment.

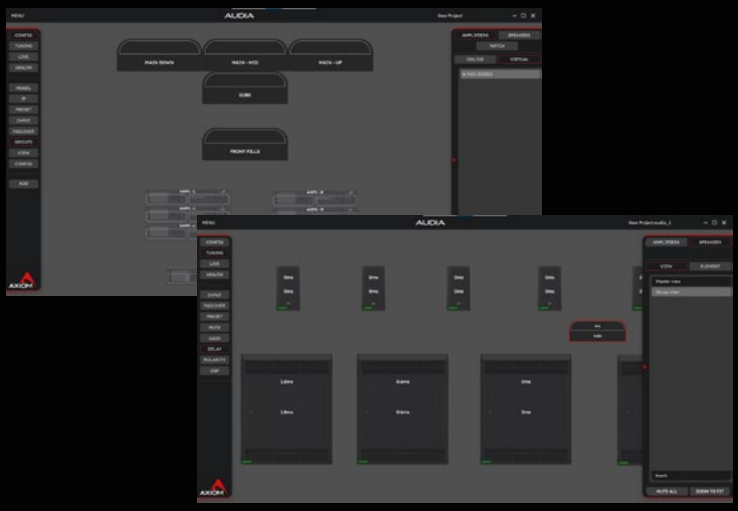
When working in loudspeaker view, users can interact directly with the acoustic system, adjusting EQ, level, delay, and processing, while AUDIA automatically maps all parameters to the assigned amplifier channels.

SYSTEM CONTROL
& ORGANIZATION

The interface allows intuitive grouping and management of devices within complex systems:

- Logical grouping of loudspeakers and amplifiers
- Fast access to key parameters
- Customizable layouts for different workflows

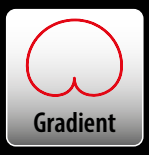
Snapshots enable saving and recalling complete system states, including routing, processing, and device configuration.



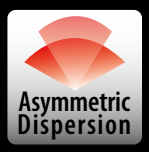
TECHNOLOGY
REFERENCE GUIDE

A reference guide to AXIOM technologies and system features. Use this page to quickly identify and understand the icons used throughout the catalog.

Electroacoustic Design



Gradient design achieves low-frequency directivity control through pressure gradient principles. It minimizes rear radiation and improves stage conditions using passive or active approaches, including acoustic loading, resistive ports or dedicated cancellation drivers.



Asymmetric Dispersion provides a variable horizontal coverage pattern optimized for real listening environments. The horn is wider in the lower section for improved near-field coverage and narrower in the upper section for better long-distance control.

Dual Gap motor design enhances transducer symmetry and overall acoustic performance. It reduces power compression and distortion while improving efficiency and power handling compared to conventional single-gap designs

System Design & Simulation

AXIOM supports the EASE Focus 3 software platform for accurate line array aiming and acoustic prediction. GLL files are available as a free download from the AXIOM website to perform detailed coverage simulations and system design.

AXIOM GLL files allow accurate acoustic simulations within the EASE platform. They enable system designers to predict coverage, reverberation behaviour, speech intelligibility and other acoustic parameters during the system design phase.

Signal Processing

System processing is based on advanced DSP platforms developed by PROEL R&D laboratories. High-quality A/D and D/A converters ensure excellent signal integrity and a dynamic range exceeding 110 dB

Next-generation audio processing is powered by 5th generation SHARC+ DSP architecture. This high-performance floating-point platform provides the computational power required for advanced filtering, FIR processing and complex protection algorithms while maintaining extremely low latency.

Finite Impulse Response (FIR) filters enable highly accurate signal processing with linear phase characteristics. This technology preserves waveform integrity and minimizes phase distortion, improving overall system clarity and coherence.

TECHNOLOGY
REFERENCE GUIDE

Control & Management

PRONET AX is a proprietary software platform for remote control and monitoring of AXIOM systems. Based on a reliable CANBUS communication protocol, it provides access to equalisation, delay settings, system protection and amplifier status monitoring.

AUDIA proprietary control software provides a unified workspace for configuration, monitoring and remote control of AXIOM audio systems. Built on a modern dual-layer networking architecture, AUDIA uses AES70 for device control and management over Ethernet, enabling scalable system integration across complex audio networks.

Network & Protocols

AES70 enables standardized control and monitoring of professional audio devices over Ethernet networks. Based on the Open Control Architecture (OCA), it ensures scalable system integration and consistent device management across complex installations.

AVB-Milan enables deterministic, low-latency audio networking over standard Ethernet infrastructure. Based on IEEE AVB standards and the Milan interoperability protocol, it guarantees precise clock synchronization, reliable stream management and seamless integration between certified professional audio devices.

AES67 is an open interoperability standard for professional Audio-over-IP networks. It enables audio stream exchange between different networked audio systems, allowing interoperability with technologies such as Dante, Ravenna, Livewire and Q-LAN.

CAN-BUS enables reliable system control and monitoring through dedicate communication networks.It is the communication backbone of PRONET AX, providing stable data exchange and consistent device management.

Amplification & Power

High-efficiency Class D amplifier modules deliver powerful and clean audio performance. Combined with Switch Mode Power Supply (SMPS) technology, they achieve efficiency above 90% while maintaining compact size, lightweight construction and minimal heat generation.

Power Factor Correction (PFC) improves the efficiency and stability of the amplifier power supply. It optimizes the power factor and ensures consistent output performance even when AC mains voltage fluctuates.

AXIOM

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