



KEY FEATURES

- Band-Pass/Bass-Reflex Active Subwoofer
- Single 21" Neodymium woofer with 4" ISV voice coil
- Water repellent cone
- Very compact enclosure
- Very good output-to-weight ratio
- 4000 Watt Class D amplifier with PFC Switch Mode Power Supply
- 96KHz / 40 bit floating point CORE processing
- Optimized presets for use in combination with AX12C line array modules
- Fully networkable with PRONET remote control software
- 18mm birch plywood enclosure
- Heavy duty castors

APPLICATIONS

- Live sound reinforcement
- Theatre
- Corporate & A/V
- Live music venues
- House of Worship
- Leisure and Fitness
- Nightclubs and Bars

TECHNICAL SPECIFICATIONS

SYSTEM

System's Acoustic Principle	Band-pass / bass-reflex
Frequency Response (-6dB)	34 Hz - 180 Hz (Processed)
Maximum (peak) SPL	132dB SPL @ 1m

TRANSDUCERS

Type	21" Neodymium magnet woofer, 4" (100mm) VC
Cone	High stiffness (Complex Composite), water repellent
Voice Coil Type	Interleaved Sandwich Voice coil (ISV)
Suspension	Triple-roll

ELECTRICAL

Input Impedance	20 kΩ balanced, 10 kΩ unbalanced
Input Sensitivity	+4dBu / 1.25 V
Signal Processing	CORE processing, 96kHz / 40bit floating point SHARC DSP, 24 bit AD/DA converters
Direct access Controls	4 Presets (2 x AX12C / 4 x AX12C / 1 x AX12C / User), Network Termination, GND Link
Remote Controls	PRONET control software
Network protocol	CANBUS
Amplifier Type	Class D with SMPS, Variable Switching Frequency
Output Power	2000W + 2000W (Out1: SW2100 - Out2: AX12C or other AXIOM loudspeakers)
Mains Voltage Range (Vac)	230V ±15% - 115 ±15% 50/60Hz (internally selectable)
IN / OUT Connectors	Neutrik XLR-M / XLR-F
IN / OUT Network Connectors	ETHERCON® (NE8FAV)
Mains Input Connector	PowerCON® TRUE1 (NAC3MPX)
Mains Link Connector	PowerCON® TRUE1 (NAC3FPX)

ENCLOSURE & CONSTRUCTION

Dimensions (W x H x D)	511 mm (20.1") x 554 mm (21.8") x 770 mm (30.3")
Depth Including Wheels	898 mm (35.3")
Enclosure Material	18mm, reinforced phenolic birch
Enclosure Finish	High resistance, black water based paint
Transport	4 x heavy duty 100mm (4") castors, 4 handles
Net Weight	61 Kg (134.2 lbs)

DESCRIPTION

The SW2100A is a very compact Band-Pass/Bass-Reflex subwoofer providing high output and extended low frequency response.

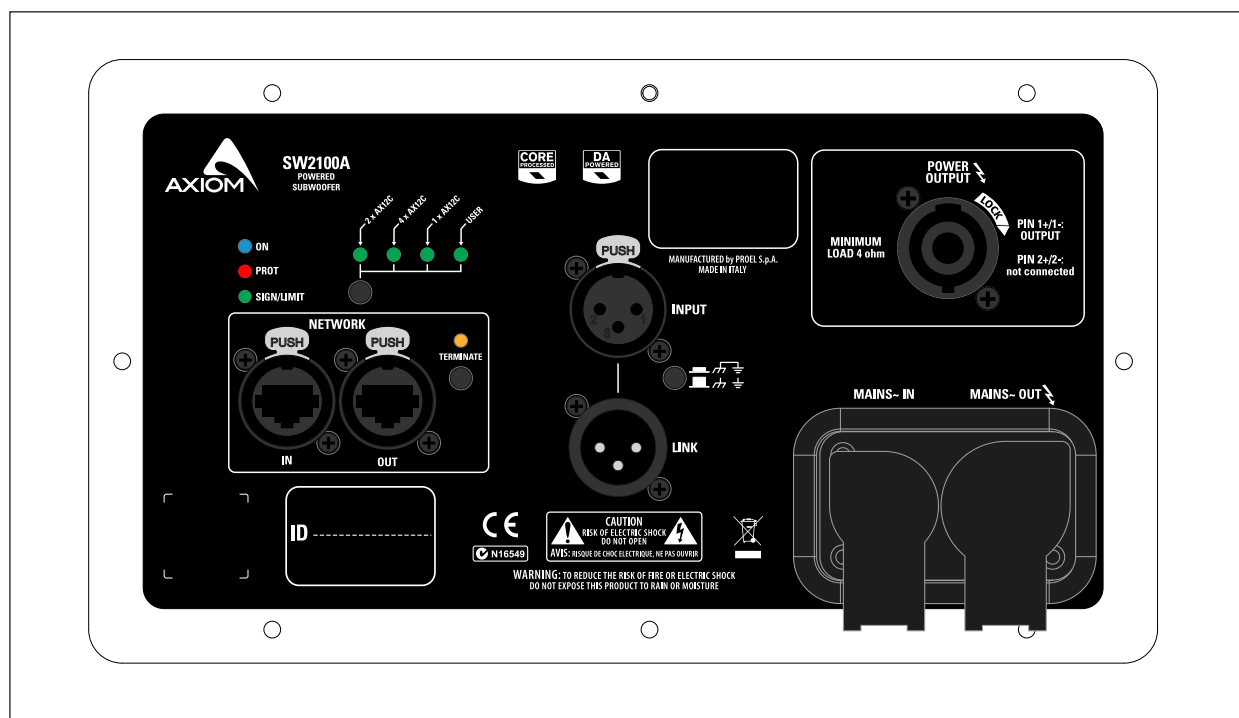
It is equipped with a single 21" neodymium transducer with a 4" ISV voice coil, large displacement suspension system, and composite reinforced, water repellent cone, able to provide clean and undistorted LF reproduction at very high SPL .

The system processing is based on the CORE DSP platform designed by the PROEL R&D Laboratories using one of the most advanced SHARC DSP for audio applications. It features 40bit, 96kHz floating point resolution and top-quality 24bit AD/DA converters, for a perfect signal integrity, dynamic range in excess of 110dB, and superior sonic performance. Thanks to its massive processing power, the CORE platform is capable of providing the most sophisticated algorithms for speaker processing, together with remote control and networking capability.

The PRONET control software, working on a solid and reliable CANBUS based network protocol, provides an intuitive interface for the remote control of the whole system, with the possibility of EQing, delaying, managing the protection functions, and monitoring the status of the amplifier.

The SW2100A is powered by a DA SERIES digital power module, a new generation of CLASS D power amplifier with digitally-controlled SMPS. The innovative technology used for these amplifiers (including also the use of a variable switching frequency) offers performance at the top of the range, such as superior sound definition at any audio frequency, very high dynamics for low level signals, and very low distortion even at maximum power. The amplifier's superior sound quality can be compared with top-of-the-range AB-class analog systems, while the DA modules feature higher dynamic range, very compact size, light weight, and efficiency above 90%.

The DA module employed for powering the SW2100A features also PFC (Power Factor Correction), a technology able to guarantee always the highest level of power regardless of any eventual fluctuations of the power supply. It delivers in an ultra-compact package 2000W from each of its two channels: one channel is used to drive the 21" woofer, the other, through an output SPEAKON connector, can power AX12C line array modules or other AXIOM speakers.

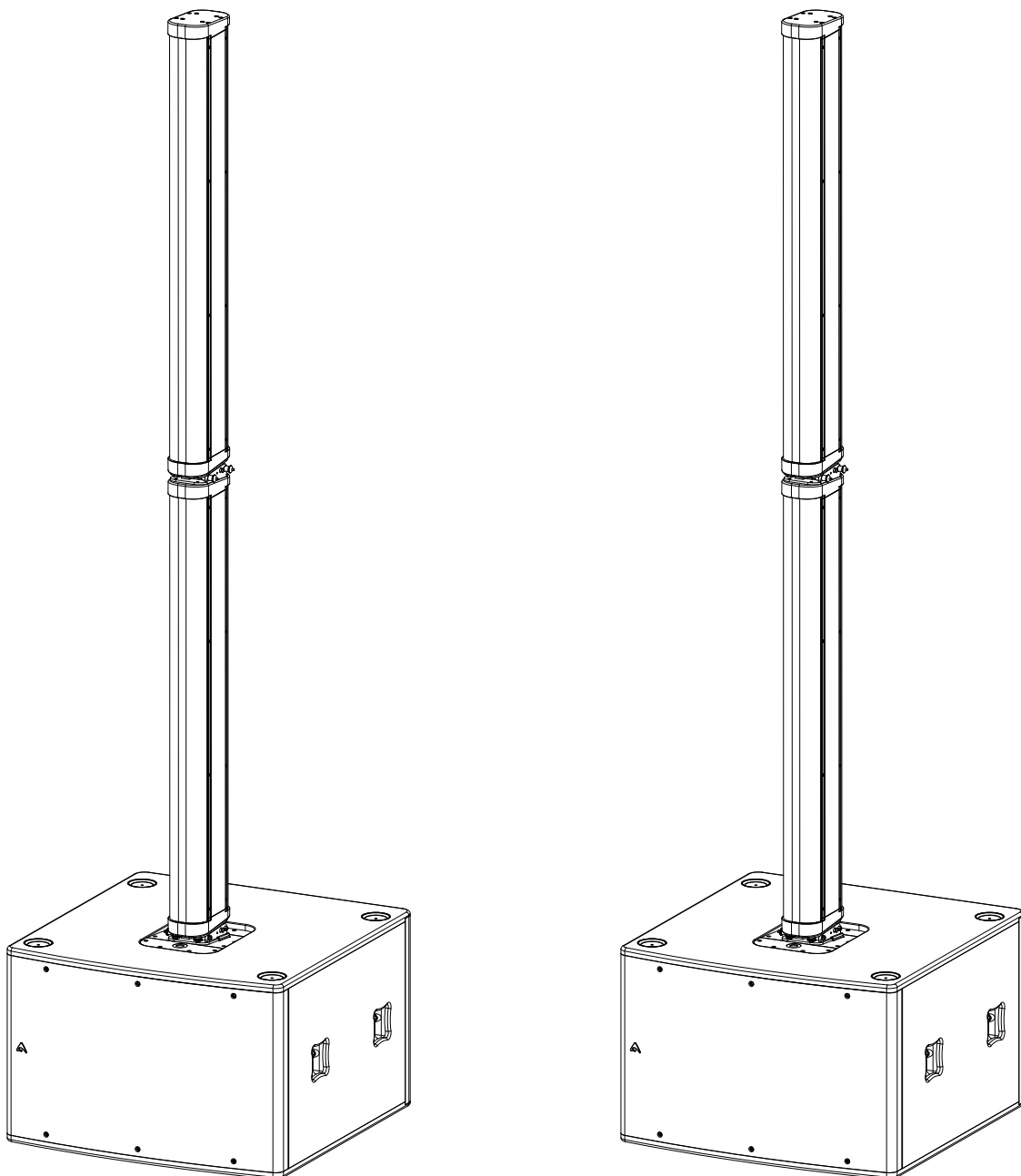


THE SYSTEM

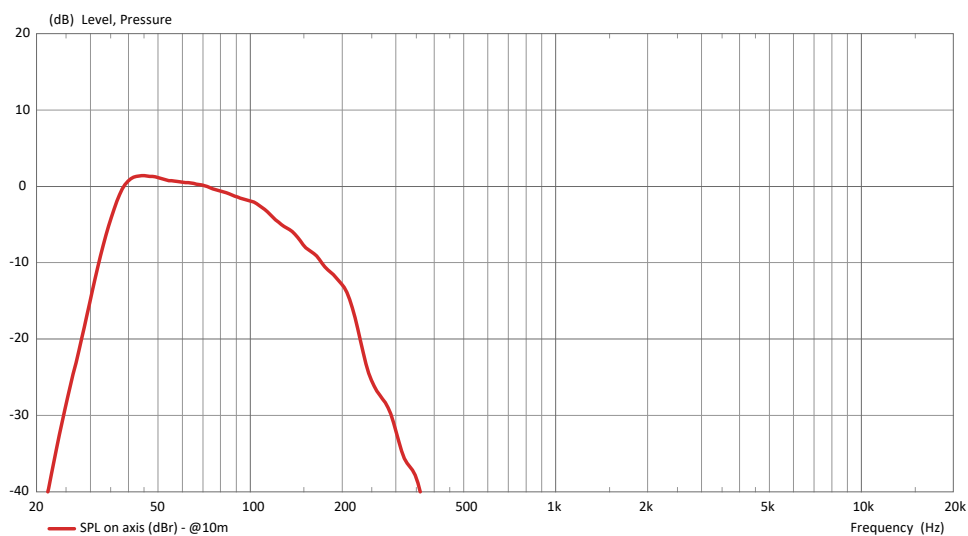
The SW2100A has been mainly designed to provide the optimal low frequency extension to the AX12C line array module. The built-in DA power module can provide 2000W to power up to four AX12C line array modules connected to the output SPEAKON. The built-in CORE DSP provides 4 presets for different combinations: 2, 4 or 1 columns plus 1 user preset (additional presets for processing other AXIOM speakers are also available).

The SW2100A features on the top panel a special metal plate and it comes with a dedicated aluminium bracket for fast coupling with the AX12C's rigging hardware. Using this simple system, up to two AX12C modules can be easily installed on an SW2100A.

The standard system, composed of four AX12C line array modules and two SW2100A subwoofers, features 8000W of total power and a line-array dispersion pattern, making it the perfect solution for high-performance portable sound reinforcement applications.



SW2100A frequency response



ENGINEERING DRAWING

