

SAFETY INSTRUCTIONS

Read this user manual and keep it with the product.

Always follow all safety instructions and local security regulations.

Never use accessories not manufactured or approved by Aura Audio with Aura Audio products.

Make sure no audience or crew member is too close to loudspeakers when operating with high sound pressure levels (SPL). Professional loudspeaker systems are capable of producing sound pressure levels high enough to cause permanent hearing damage even at exposure times less than couple of minutes.

Please check the Aura Audio website on a regular basis for latest downloads and updates.

In case of any questions please don't hesitate to contact us for more information via info@auraaudio.fi

We also welcome all comments and system pics from you!

TABLE OF CONTENTS

1.	Safety Instructions	1
2.	Introduction	2
3.	Installation	3
4.	Simulation with EASE Focus 3	4
5.	Specifications	5
6.	Dimensions	6
7.	Declaration of Conformity	7



INTRODUCTION

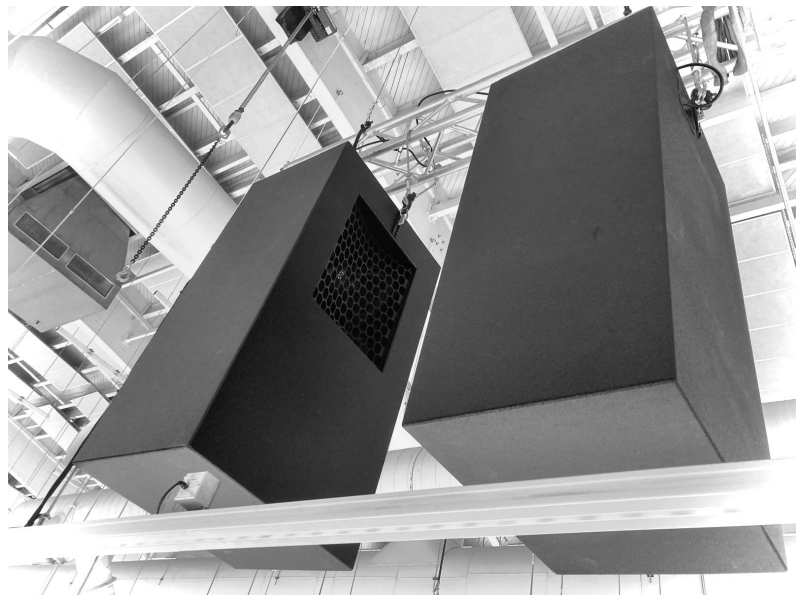
XQ48 is a unique quad 18" hybrid horn-loaded subwoofer.

Featuring US-patented enclosure design, a combination of asymmetric dual horn combined with a common volume band-pass loading gives the subwoofer high efficiency, speed and extremely low distortion figures while minimizing the off-band problems common to bass reflex and direct radiating designs. The usable frequency range also increases compared to common designs together with detail and transient output through out the whole usable bass region. Drivers are arranged in opposite facing arrangement so that they cancel out the natural vibrations from cone movement, making the enclosure much more stable without extra reinforcement, thus reducing the weight of the enclosure. The reduced X_{max} (linear cone movement) due to horn-loading increases the efficiency while maximizing the life of the driver.

INSTALLATION

XQ48 is designed to be installed either next to a wall on the floor or flown in the center of the venue. Depth of only 600mm enables near wall placement while saving floor space in a night club or a live music venue while relatively light total weight of 99kg helps to avoid unnecessarily heavy rigging structures.

XQ48 is not equipped with flying gear by default. Flying options include brackets or standard cargo tracks that can also be installed afterwards if needed. Please consult your local dealer or Aura Audio sales about requirements before ordering.



Dual XQ48 subwoofer flown array pictured from below in an arena system. Multiple subwoofers facing one point create a virtual single omni-directional source and even 360 degree distribution of low frequencies when placed in the center of the arena ceiling.

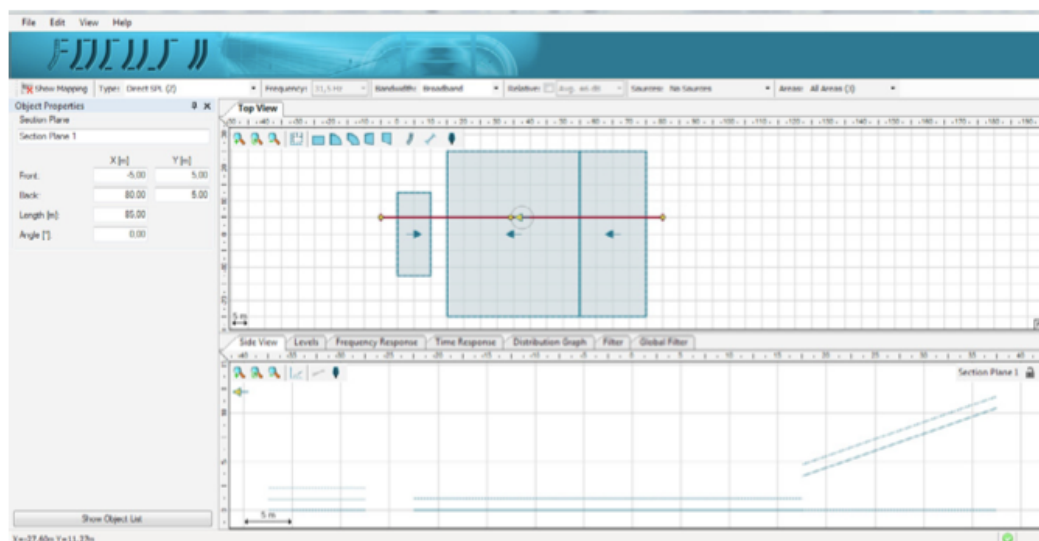
SIMULATION WITH EASE Focus 3

EASE Focus 3 is a 3D system design software developed by AFMG GmbH. Before using the software visit “downloads” section in Aura Audio website to download (XQ48 product page) XD30 GLL file and then download EASE Focus 3 software from <http://afmg.eu>

Install the software and import XD30 file to your project:
Edit / Import System Definition File... => Add Sound Source

You can choose two modes operation when choosing a subwoofer model from the library: Subwoofer Array or Single Source. When Subwoofer Array mode is used the software calculates the necessary delays when quantity of subwoofers, array width and target coverage angle is determined. Second option is to set all subwoofers one by one. That way you can do any possible configuration from single unit to stereo, end-fire or other cardioid arrays, using delay, gain and physical spacing of the units.

Please refer to the EASE Focus 3 User Manual for more details or contact Aura Audio user support via email [info\(at\)auraaudio.fi](mailto:info(at)auraaudio.fi)



It is always necessary to time align subwoofers to the flown array (tops) by measuring both separate and summed frequency and phase responses from subs and tops and adjust delay to one or both groups accordingly. Ground plane measurement is recommended to minimize near mic reflections.

APPLICATIONS

Optimized for large venues center subs
Subwoofer for night clubs and extreme drum fills
Medium and large installations
Noise measurement lab work

FEATURES

Unique patented “boxer-motor” design
Very accurate and low distortion low frequency reproduction
Quad 18” high power long excursion cone driver
Best in class power to size ratio
Rugged but light birch plywood construction

SPECIFICATIONS

Frequency Response (-6 dB): 33 Hz – 120 Hz
Coverage (-6 dB): 360 degrees
Max SPL (cont/peak): 144/150 dB (free space)
Sensitivity, 1w/1m: 107 dB (free space)
Impedance: 2 Ohms (4+4 Ohms)
Power handling: 5000 W(rms) 20000W(peak)

DRIVERS

LF: (4) x 18” neodymium driver, 4” voice coil

DIMENSIONS

ENCLOSURE

Enclosure material: Birch plywood, textured black paint finish

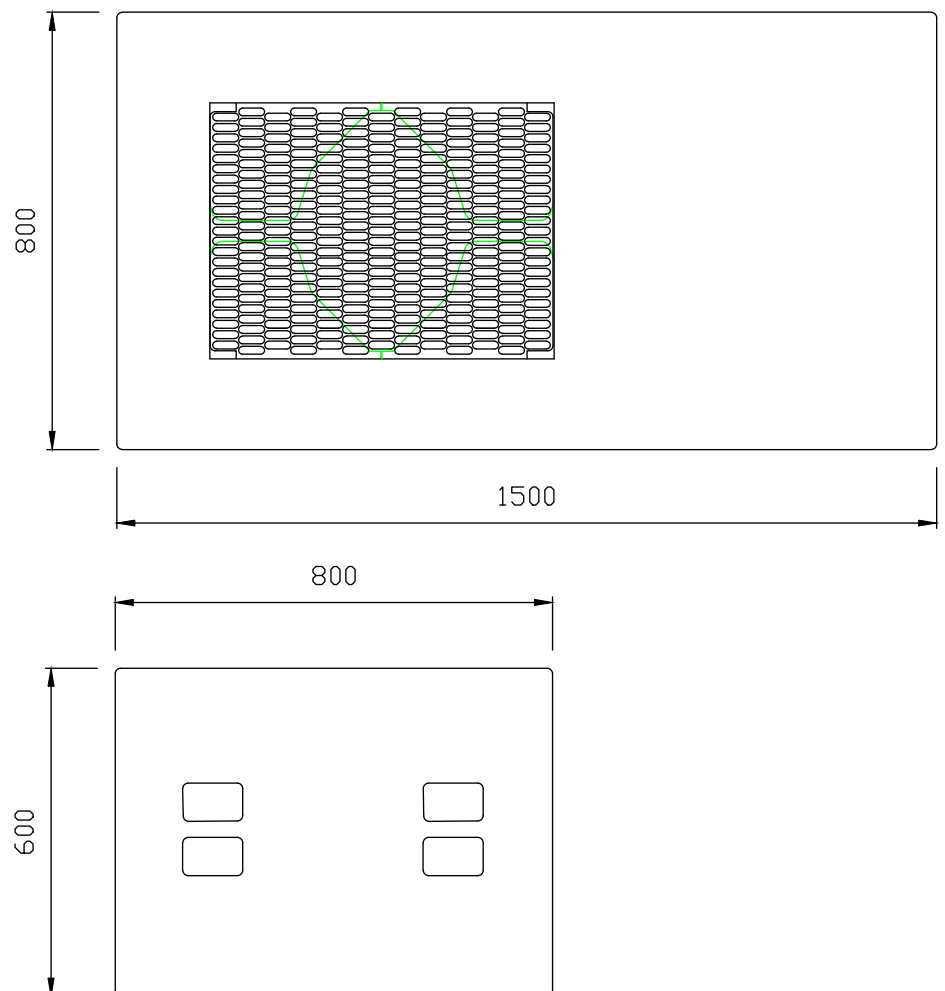
Grille: Cold rolled steel grille, textured black paint finish

Connectors: (2) x NL4, +/-1: Input, +/-2: Input (parallel)

Dimensions (H/W/D): 1500 mm x 800 mm x 600 mm

Weight: 99 kg

XQ48



EC declaration of conformity Manufacturer:

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Finland

We declare the under our sole responsibility the following product models:

A-Series,
C-series,
F-Series,
XD-series,
XQ-series,
i-series and

S-series products are intended to be used as loudspeakers and are in conformity with the following EC Directives, including all amendments, and with national legislation implementing these directives:

BS EN 60065:2002

BS EN 55103-1/-2

March 2024

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke extending to the right.

Mika Isotalo
Managing Director