

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 crewmember 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 pictures from you!

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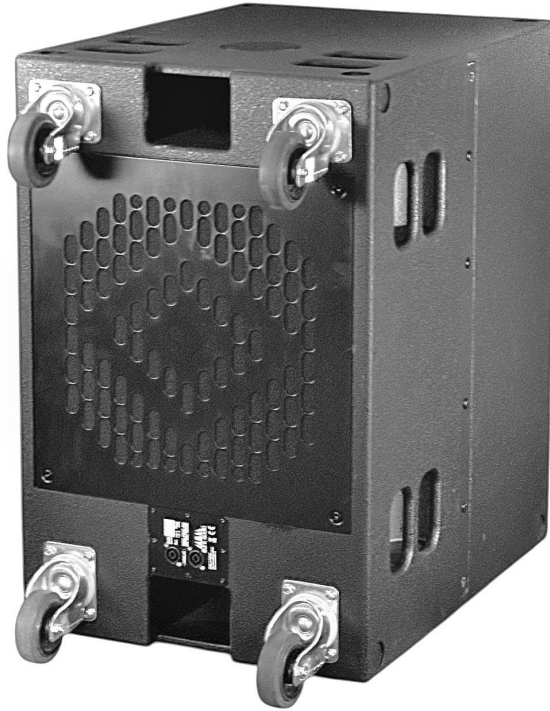
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INTRODUCTION

S28C is a passive high power subwoofer. Featuring US- and EP-patented hybrid enclosure design, a combination of folded horn together with a separate reflex-loaded enclosure gives this subwoofer its unique directional character. The key innovation Passive End Fire Technology perfectly matches the phase responses of the front firing horn-loaded 18" cone driver to reflex-loaded rear firing 18" cone driver and as a result the two waveforms sum at the front of the cabinet and cancel behind the cabinet. Because this is accomplished purely acoustically there is no need for additional processing and S28C can be driven with only one amplifier channel greatly reducing the overall system cost.

S28C is covered with water resistant semi-matt black coating and equipped with flying tracks, CNC-machined handles, M20 pole mount adapter, 100mm heavy duty wheels and stacking studs for easy and safe ground stacking.



SIMULATION WITH EASE Focus 3

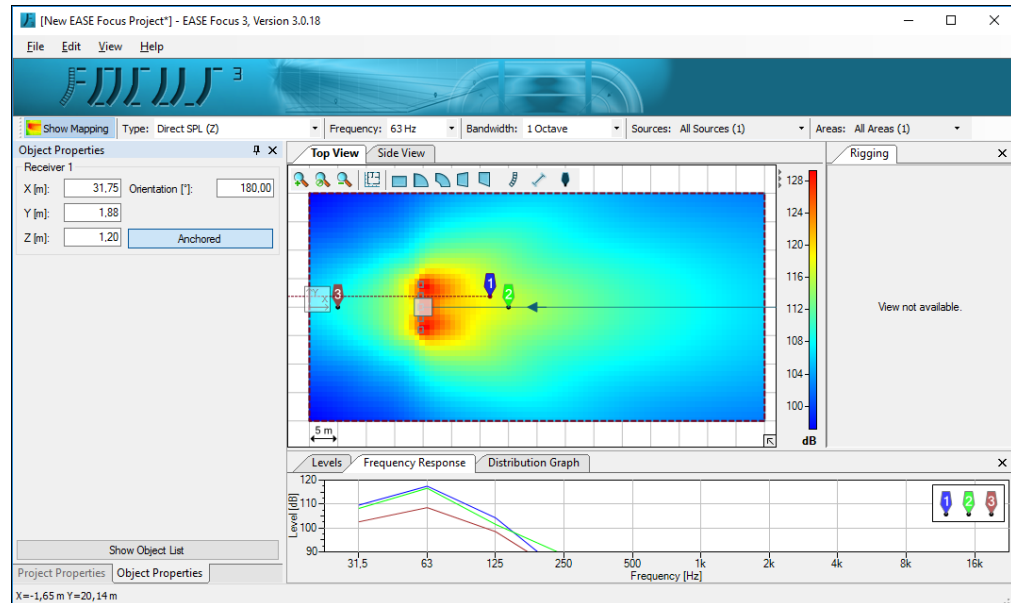
For simulation purposes A28 GLL file is used for S28C and S28Ci.

EASE Focus 3 is 3D system design software developed by AFMG GmbH. Before using the software visit “downloads” section in Aura Audio website to download A28 GLL file and download EASE Focus 3 software from <http://afmg.eu>

Install the software and import A28 file to your project:

Edit / Import System Definition File...=> Add Sound Source

You can choose two modes of operation when choosing A28 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 are determined. Another option is Single Source and setting all subwoofers one by one. This enables placing subs freely and adding delay and gain to each unit separately.



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 microphone reflections at low frequencies.

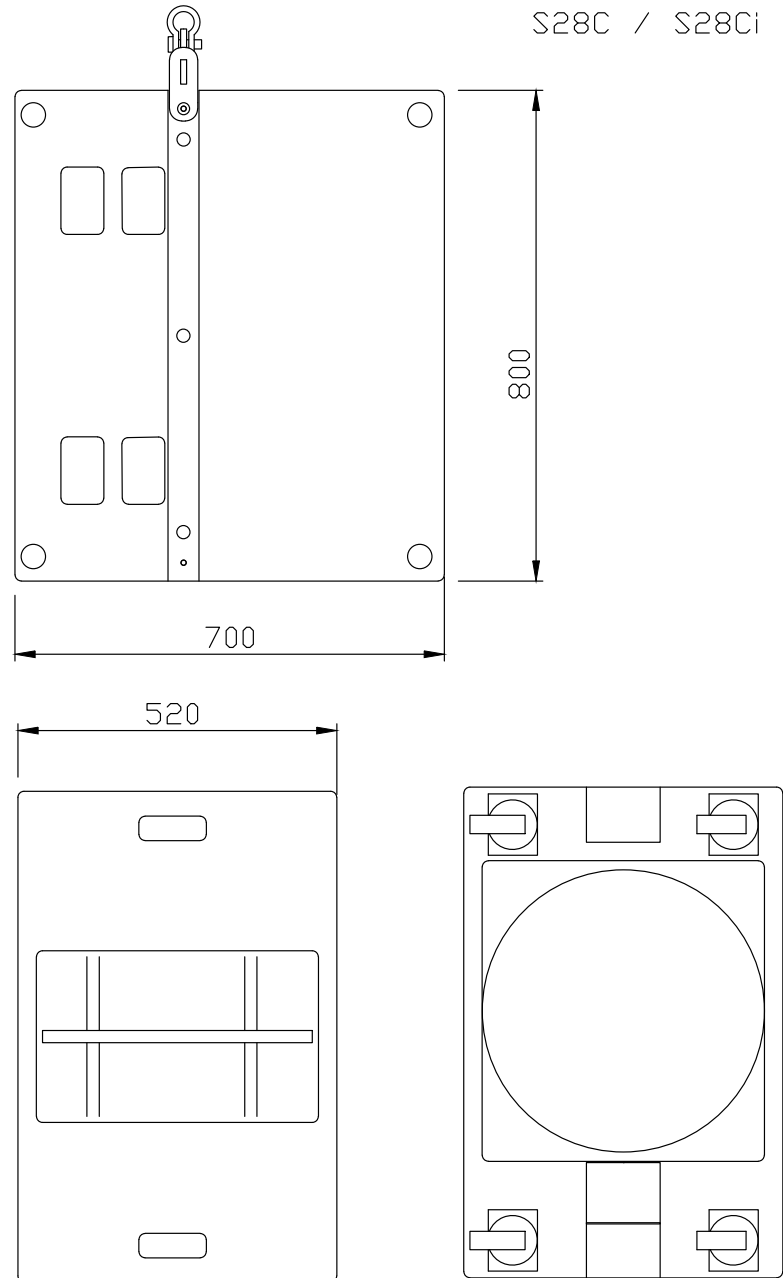
APPLICATIONS

- Touring in mid and large size venues
- Subwoofer for drum fills or side fills
- Medium and large size installations
- Low frequency extension for C12 and C15
- Low frequency extension for S1, S2 and S3

FEATURES

- Passive end fire technology
- Cardioid polar pattern without external processing
- Unique patented hybrid loading design
- Very accurate and dynamic low frequency reproduction
- Double 18" high power long excursion cone drivers
- Rugged birch plywood construction
- Textured semi-matt black paint finish

DIMENSIONS



Dimensions: 800mm x 520mm x 700mm (830 w/ wheels)

Weight: 65 kg (60kg without wheels)

SPECIFICATIONS

Frequency Response (-6 dB): 44 Hz – 250 Hz

Coverage (-6 dB): 150 degrees

Max SPL (cont/peak): 133/139 dB (free space)

Sensitivity, 1w/1m: 101 dB (free space)

Impedance: 6 ohms (nominal)

Power handling: 1800 W(rms) 7200W(peak)

DRIVERS

LF (front): (1) x 18" cone driver, 4" voice coil

LF (rear): (1) x 18" cone driver, 3" voice coil

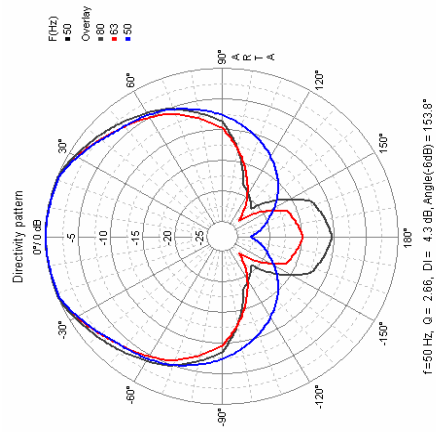
ENCLOSURE

Material: Birch plywood, textured black paint finish

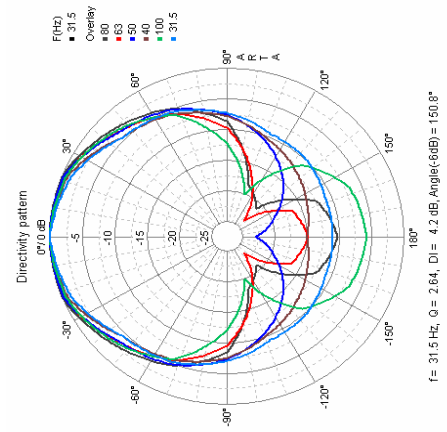
Grille: Cold rolled steel grille, textured black paint finish

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

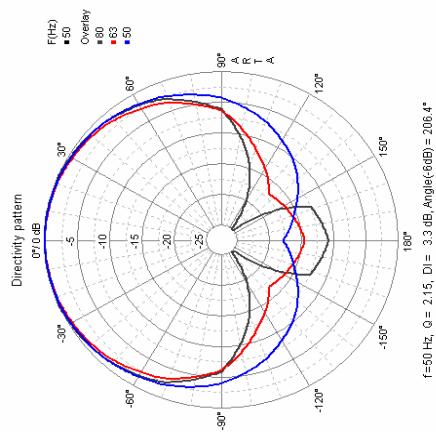
DIRECTIVITY MEASUREMENTS



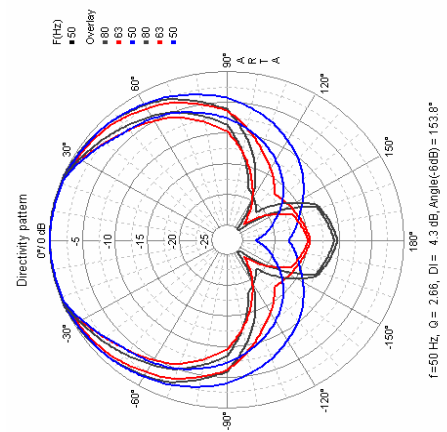
2x18" v2 horizontal



2x18" v2 horizontal 2oct



2x18"v2 vertical



2x18" v2 hor+ver



EC DECLARATION OF CONFIRMITY (CE symbol)



Aura Audio Oy
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Finland

States that the following product:

D05k, D1k, D2w, D2k, D5k, F1A and F10A amplifiers

Is in conformity with the provisions of the respective EC directives including all applicable amendments:

2006/95/EC: Low Voltage Directive
2004/108/EC: Electro-Magnetic Compatibility Directive
2011/65/EU: ROHS2 directive

List of tests and standards applied:

Radiated Emissions / EN 61000-6-3
EN 55022B

Conducted Emissions / EN 61000-6-3
EN 55022B

Radiated RF Immunity / EN 61000-6-1
10V/m / IEC 61000-4-3

Conducted RF Immunity / EN 61000-6-1
3V / IEC 61000-4-6

Electrical Fast Transient Immunity (EFT) / EN 61000-6-1
1,0/0,5kV / IEC 61000-4-4

Surge Immunity / EN 61000-6-1
1,0/2,0kV / IEC 61000-4-5

Electrostatic Discharge Immunity / EN 61000-6-1
6kV Contact / 8kV Air Discharge / IEC 61000-4-2

Established at Lieto, Finland, November 20, 2013

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