

CORA Line array Datasheet



Cora is an active two-way, compact dual 8" line array system. Designed for medium size projects, boasting extreme SPL and extended low frequency capabilities for its compact design when used with the Cora-S flying subwoofer. Cora integrates a 4-point rigging system into both models, making Cora a flexible solution for both install and touring alike.

The Cora is a bi amp design with a nominal impedance of 8 ohms for both the high & low frequency section. Featuring 2 x 8" proprietary Ohm woofers in a reflex tuned enclosure with dual 4" neodymium planer wave drivers. An SPL of 143dB (peak), or in a concert array of 8 boxes SPL of 156dB (peak). Cora's frequency response is from 75 Hz to 21 kHz. This can be extended down to 29Hz when used with Cora-S subwoofer. An exposed phase plug design provides a smooth linear response and dispersion free of lobes over the entire frequency range. The waveguide generates a symmetrical horizontal dispersion of 100° x 12° vertical.

Made of high-grade Baltic birch plywood coated in tough polyurea ensures mechanical and acoustical integrity. A fully integrated 4-point rigging system designed with various angles

of up to 12° per cabinet, which ensure perfect acoustic coupling between multiple cabinets forming an array. The Cora array frame is a single and multi-point flying frame which is perfect for ground stacking or flying Cora, Cora-S and self-powered versions. The same hardware can be used when ground-stacking CORA on TRS-118/218.

Each Cora is a lightweight 21.7 Kg reducing transportation and rigging weight. With a system hang of 9 Cora flying on a Cora array frame weighs 222 Kg. which is far below most maximum load points from small portable stages and theatres. Each Cora array frame (C-AF) weighs 27.23 Kg.

The robust enclosure has a unique exposed phase plug design front, hardwearing Polyurea paint finish and two butterfly handles on each side.

The rear connection plate has two recessed 4 pin speakON® connectors fitted as standard, one input and one link. Cora is wired bi-amp with pins +1-1 for the Sub, and pins +2-2 high frequency.

Key features :

- Medium throw, full range line array component
- Touring grade cabinet
- Tough Polyurea coating
- Dual layer thermal relief driver technology
- Phase-plug controlled LF driver with Integrated HF waveguide
- Advanced active dispersion gives 100° x 12° coverage
- Unique port design gives excellent dynamics without side-lobing
- Easy ground-stacking of up to 6 cabinets per frame
- Fly up to 12 cabinets per frame.
- 8 + 8 Ohm impedance allows for 6 cabinets to be connected to a 4 output amplifier

Technical Specifications

Design

2 x 8" Full Range, Phase plug controlled coupling waveguide with ported rear cabinet

Impedance

2 x 8 Ohm, Minimum 7 ohms @ 321Hz LF / 7.5 ohms @ 600Hz HF

Power Handling (AES)

500 Watts LF / 160 Watts HF (continuous)

Max. Power Handling (AES)

1000W LF / 320W HF (prog)
2000W LF / 640W HF (peak 10 ms)

Sensitivity 2.83V / 1m

102 dB LF / 115 dB HF

Max. SPL

129 dB cont. 135 dB peak LF
137 dB cont. 143 dB peak HF

Frequency Response (± 3 dB)

82 Hz - 20 kHz

Usable Frequency Range (-10 dB)

75 Hz - 21 kHz

Dispersion

100° x 12° per cabinet, up to 100° x 90° depending on array curving

SYSTEM OPERATION

Recommended Amplification

2 x 2000 W @ 2.66 Ohm for 3 cabinets in parallel

System Controller

Ohm DSP Solutions

Speaker Cables

Min - 4 x 2.5 mm²
Preferred - 4 x 4 mm²

PRODUCT FEATURES

Components

2 x 8" OHM Driver on phaseplug coupler
2 x 4" planar wave drive

Crossover

Passive - 1.15 kHz with dispersion control phase response

Active - * LPF - 1 kHz LF
HPF - 1.15 kHz HF / 60 Hz Full range / 100Hz MH

Connectors

2 x 4 pole speakON® connectors

Dimensions (H x W x D mm)

250 x 576 x 300

Weight (kg)

21.7

Shipping Weight (kg)

23 (1 cabinet per carton)

Colour

Black

Options

Available in white or RAL colours on request

Rigging

2 x Flying Hardware sides for hanging or ground stacking

HARDWARE

Fitted as Standard

Cora Flying Hardware

Optional

C-AF Cora array frame

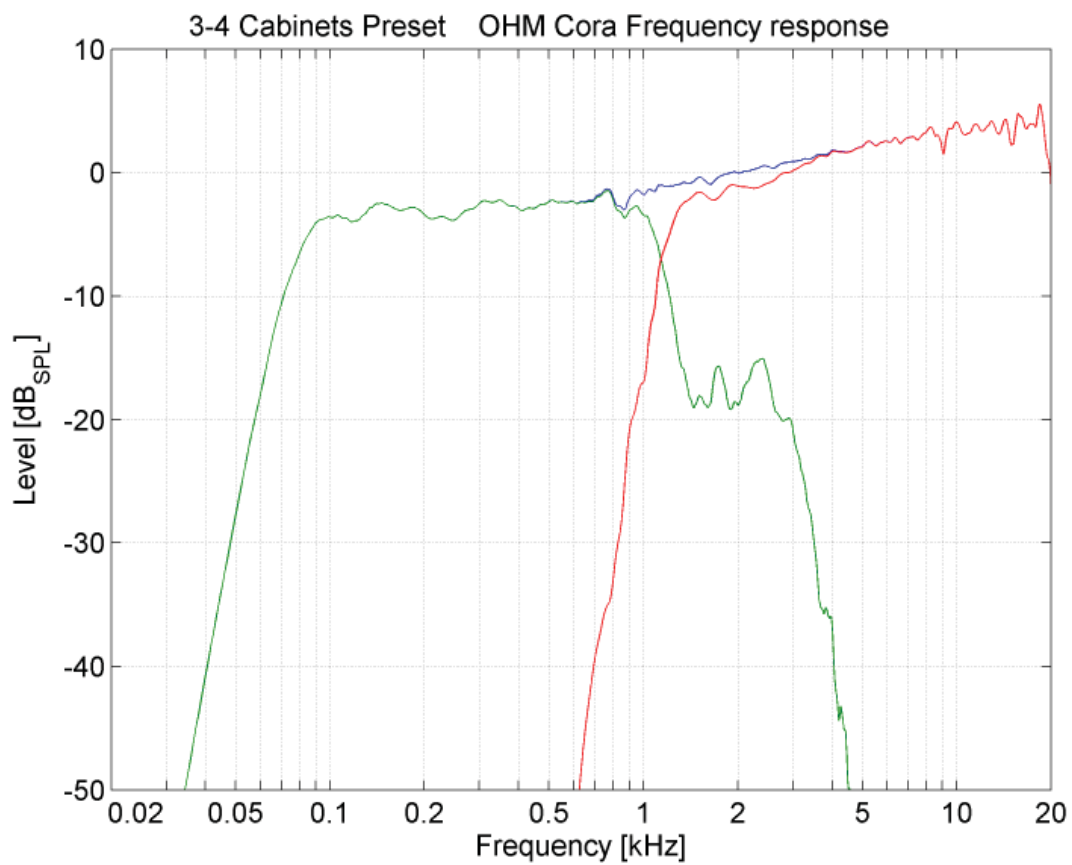
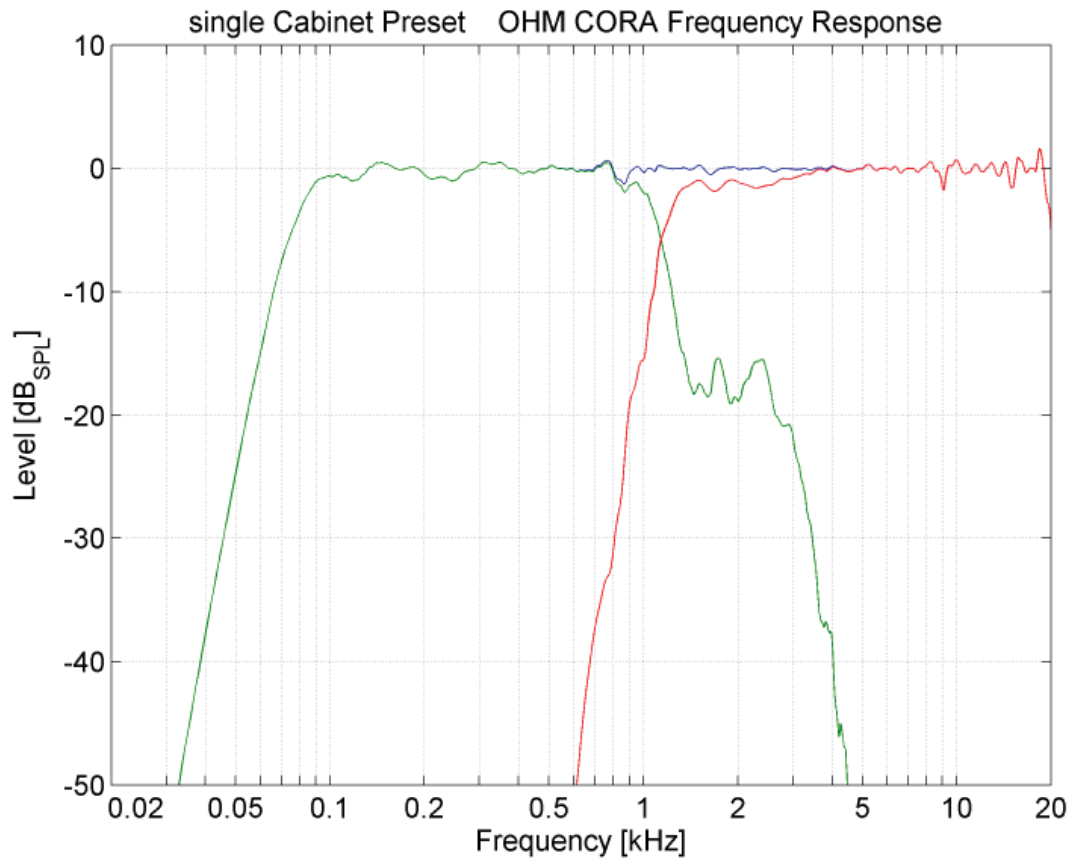
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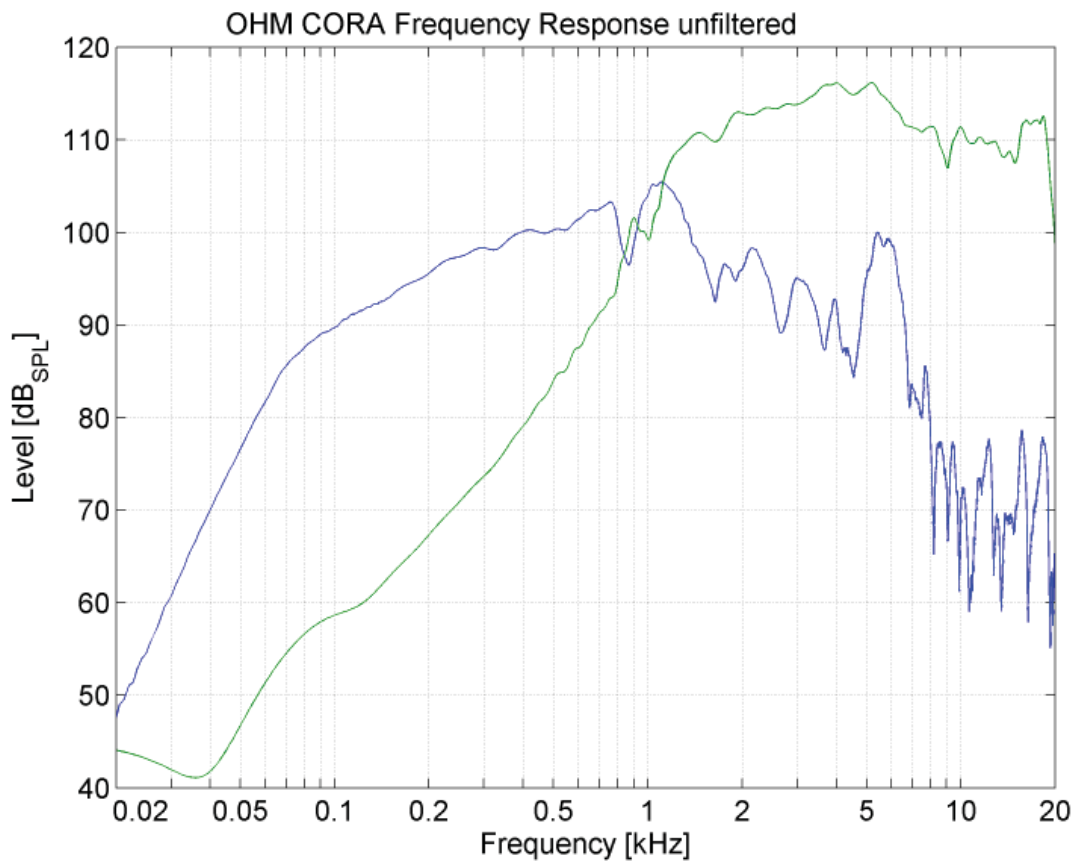
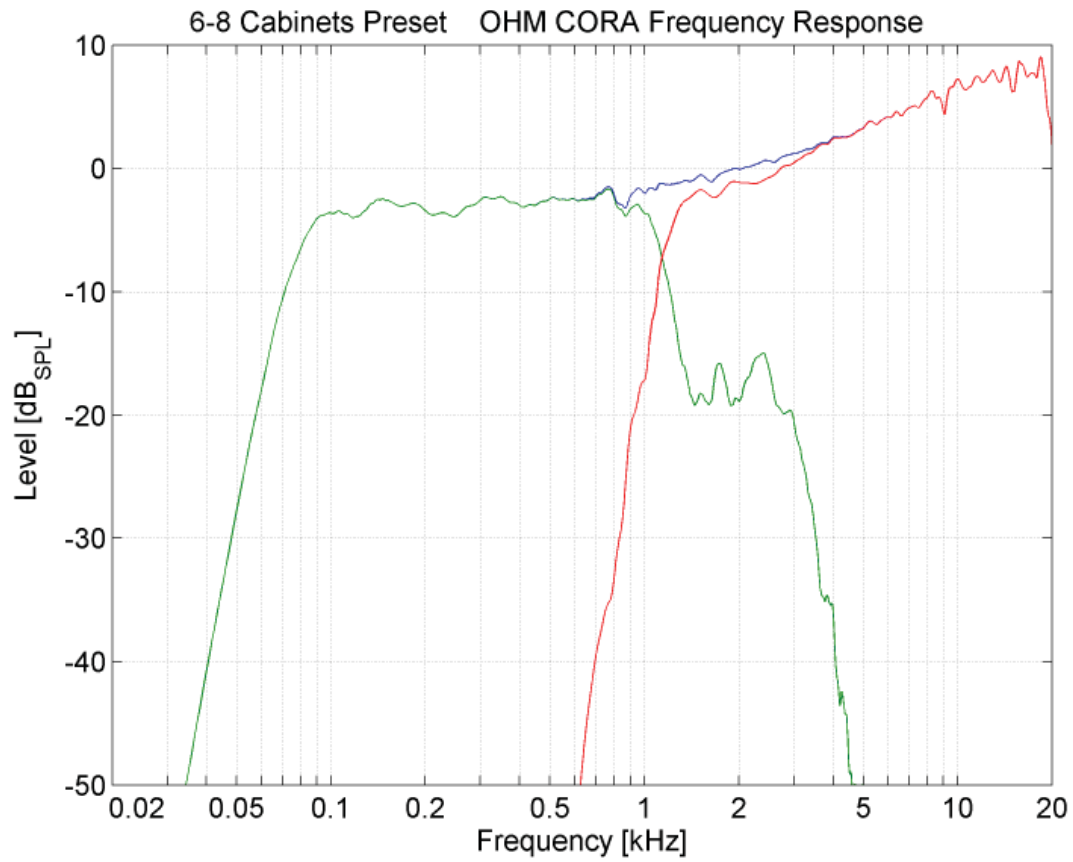
Birch plywood construction, with durable scratch resistant black polyurea paint finish with Ohm logo.

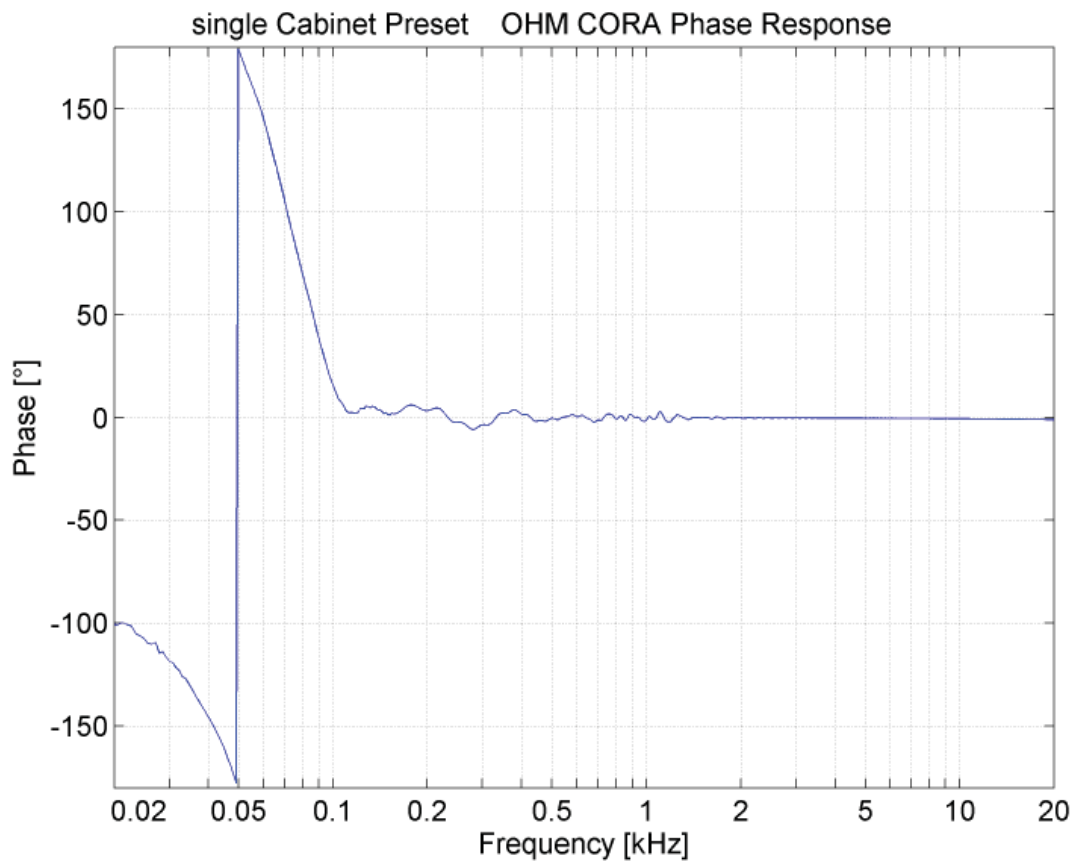
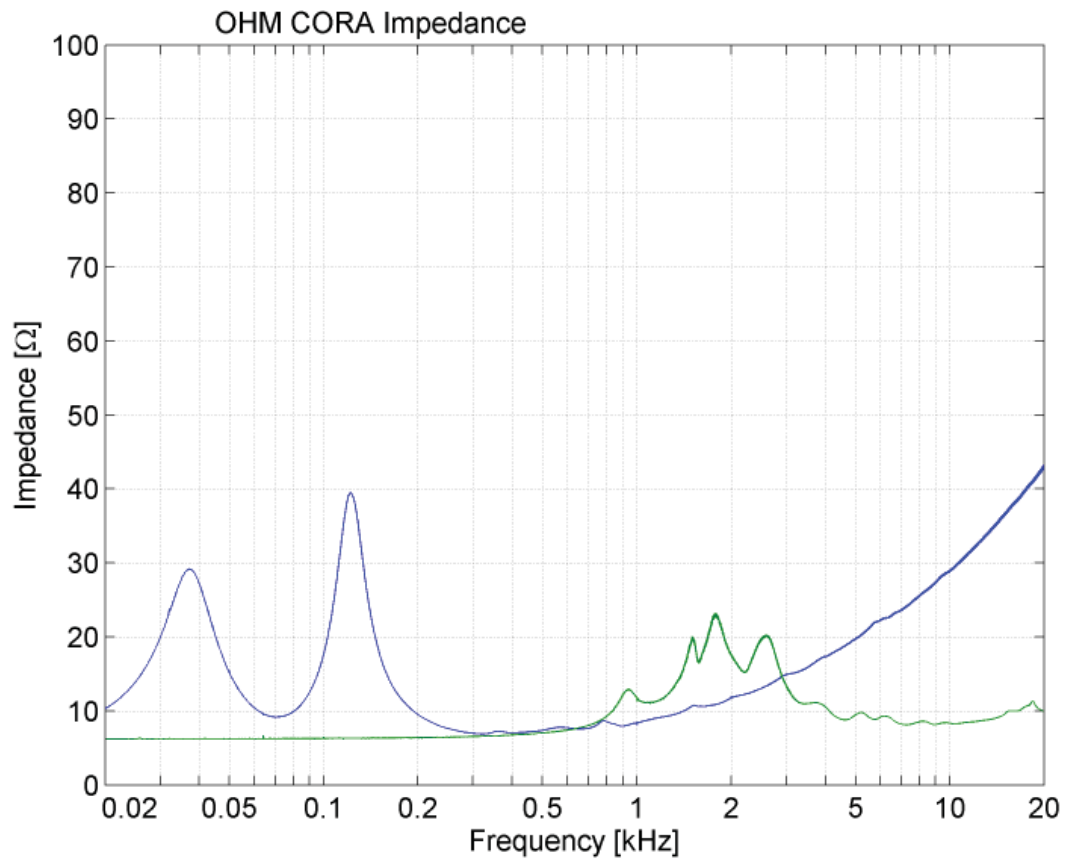
Recommended filter settings are available on the website ohm.co.uk/downloads

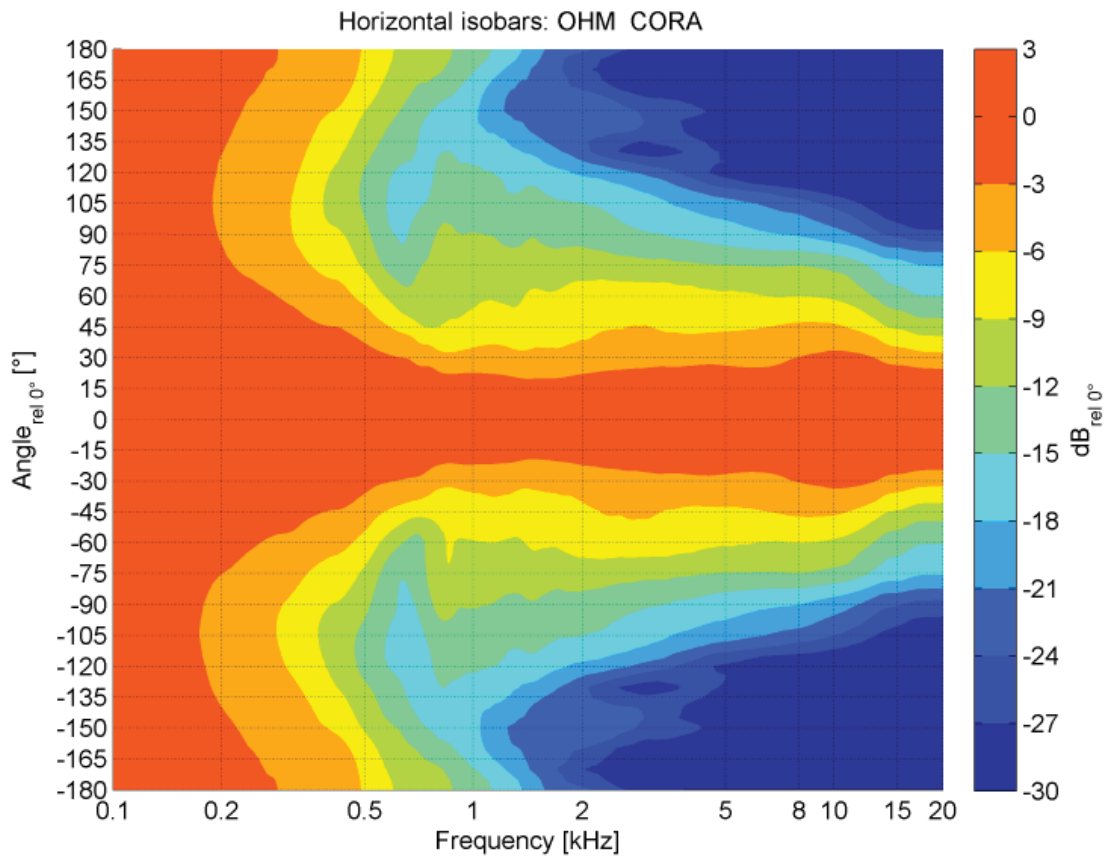
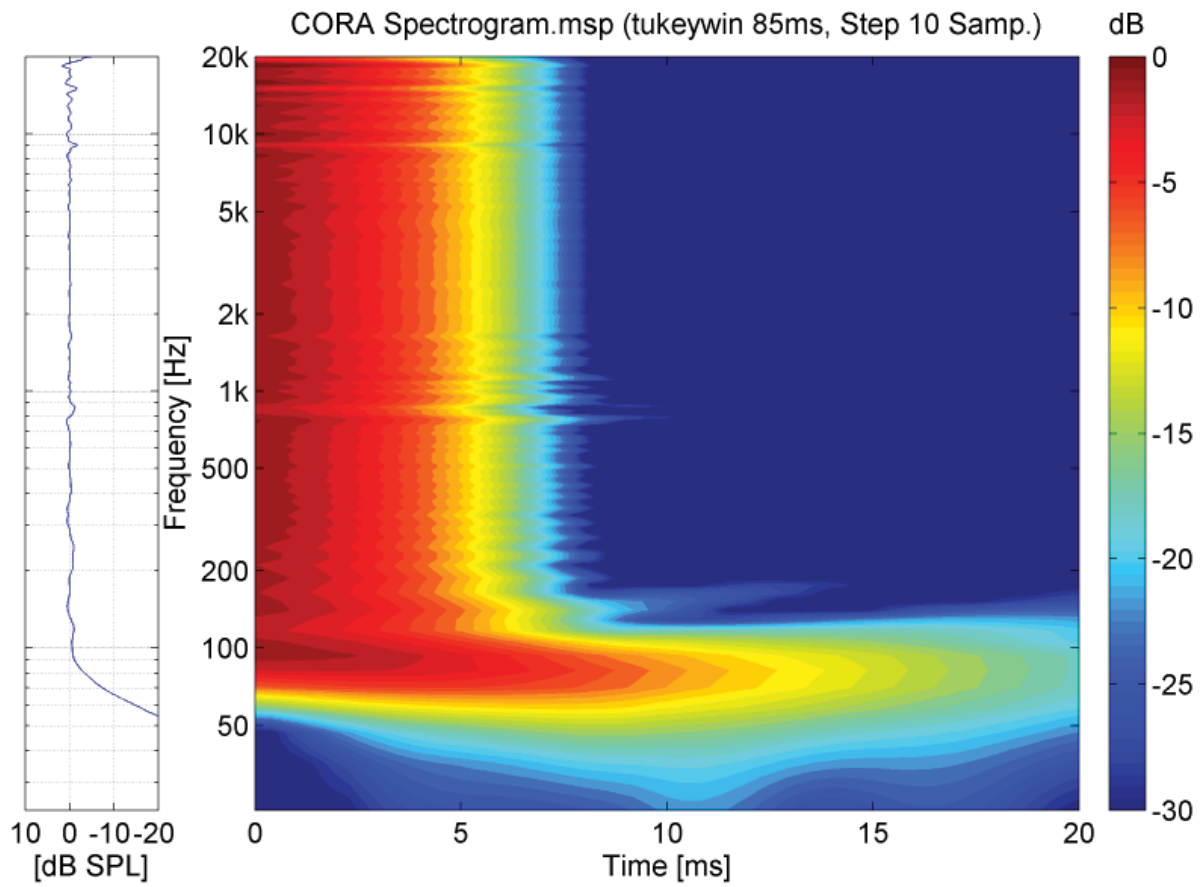
* All presets from the OHM library.

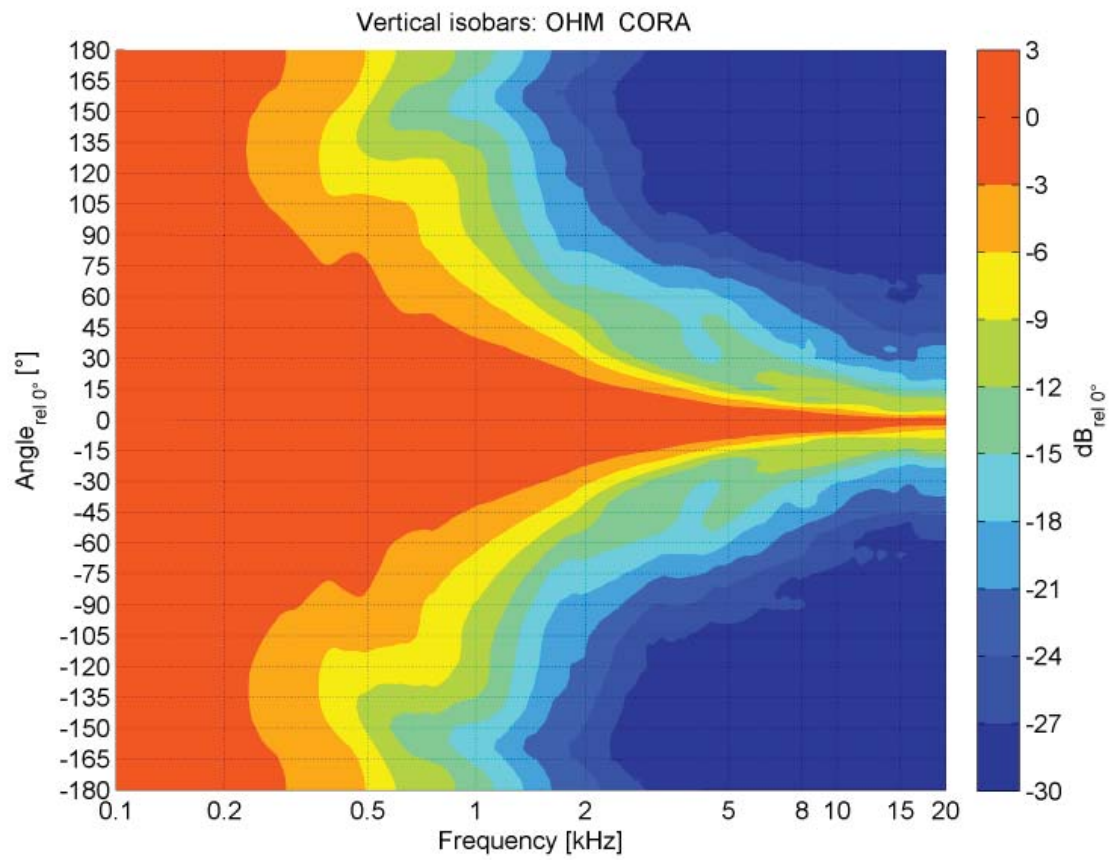
CORA Measurements







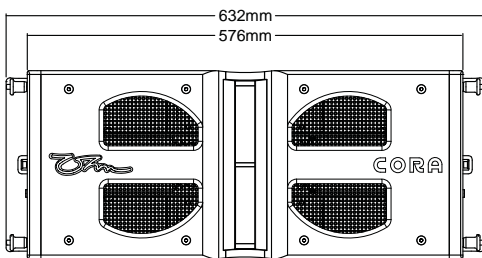




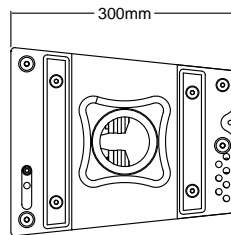
All Measurements are executed by the IFAA Institute for Acoustics in Aachen, Germany
measurement conditions 4Pi environment for full range cabinets, 2Pi environment for subwoofers.

CORA Dimensions

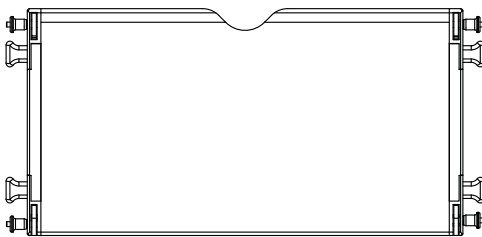
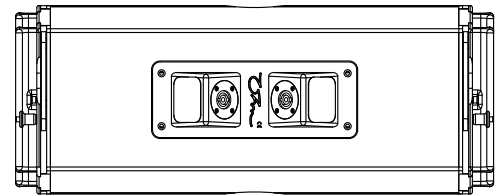
Front



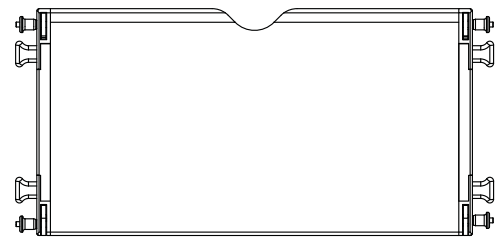
Side



Back



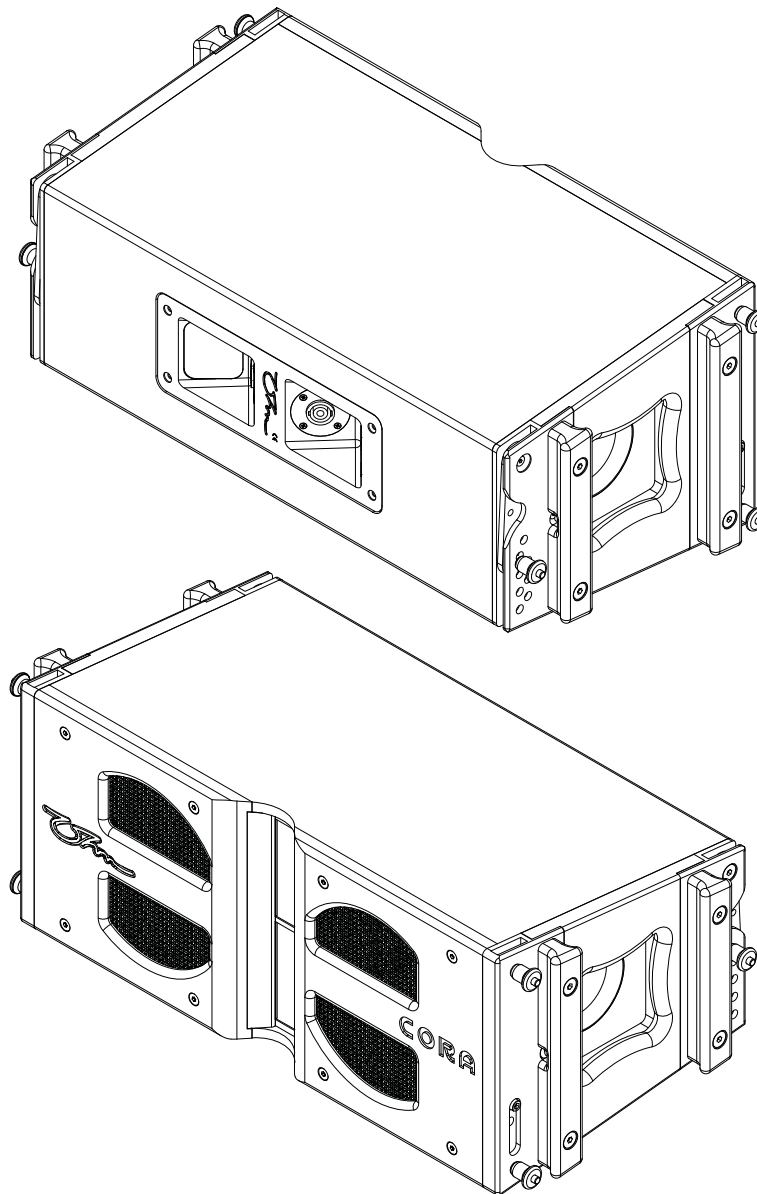
Bottom



Top

Further technical drawings for architectural requirements are available in DXF and DWG format for download on the website.

CORA 3D View



Accessories and Spare Parts

- CORA Flying Hardware
- C-AF CORA Flying Array Frame
- CORA backplate and crossover
- 8" low frequency driver
- 4" planar wave
- Steel OHM Logo

Architects' & Engineers' specifications:

The cabinet shall be a 2 way, line array cabinet incorporating a phase-plug controlled waveguide. The LF drivers will be a proprietary 8" Ohm design with dual sided, high temperature voice coils. HF will be implemented with 2 x 4" planar wave drivers mounted to a 100° x 12° waveguide that shall fully integrate both LF & HF drivers for a fully coherent phase response. The cabinet will be internally and externally ventilated giving homogenous radiating behaviour and linear response from 200 Hz. External active crossovers will control the cabinet and give active phase optimization for perfectly controlled dispersion. The cabinet shall be constructed with Baltic Birch Plywood with eco-friendly scratch resistant paint. Flying hardware will be integrated for hanging or ground stacking. Ergonomic butterfly carry handles will be integrated into the design. A recessed Ohm logo shall be fitted to the front.

Technical Data:

Frequency Response: 75 Hz - 21 kHz (-10dB), 82 Hz - 20 kHz (±3 dB), Continuous SPL: 129/137 dB/1m, Program SPL 132/140 dB/1m. Peak SPL 135/143 dB/1 m, Power Handling: 500 LF/160 HF Watt cont. IEC268 AES, Maximum Power Handling: 1000 LF/320 HF Watt prog. / 2000 LF/640 HF Watt peak, Impedance Nominal: 2 x 8 ohm, Dispersion Nominal: 100° x 12° up to 100° x 90° in array depending on curving (hor. x vert.), Connectors: 2 x speakON® connectors NL4MP (1+/1- Sub, 2+/2- HF). Dimensions (H x W x D): 250 mm x 576 mm x 300 mm, Weight: 21.7 kg. Options: Durable scratch resistant black textured paint finish. RAL colours available to order.

Safety Instructions

Professional speaker systems are able to produce sound pressure levels that could harm your health.

Never stand directly in front of loudspeakers for long periods. Whilst not immediately apparent to the listener, sound pressure levels in excess of 90dB@1m can be hazardous to the hearing.

Please refer to the following advice when setting up or dismantling OHM speaker systems.

1. Be sure to leave adequate distance between speakers and the public. Refer to your local authority for Health and Safety guidance when using loudspeaker systems.
2. Be sure to have safe and stable ground for your speakers, particularly when using speaker stands.
3. When stacking speaker systems, ensure they are secured to prevent individual speakers from falling down or moving around.
4. Only use OHM mounting hardware, as this has been specified and approved by AURAL LTD, OHM (UK) LTD for use with OHM speakers.
5. When flying speakers, appropriate materials and techniques must be employed in order to safely suspend enclosures, taking care to allow for specified enclosure weight.

Safety Instructions Cont.

6. Please observe any special instructions that appear on specific loudspeaker data-sheets.
7. Check your speaker hardware and flying material regularly for any visual or mechanical failure. Replace damaged or suspect items when necessary.
8. Only use OHM DSP Solutions. Only technicians authorised by AURAL LTD, OHM (UK) LTD are qualified to program digital controllers. Take note of recommended controllers as specified on the datasheets. Do not use OHM loudspeaker systems without the correct controller. If a system fails due to incorrect controller use, warranty is void.
9. Protect your speakers and electronics from freezing and do not expose them to humidity, water or rain without protection.

OHM loudspeakers and electronics are covered against defects in workmanship or materials for a period of two (2) years from original date of purchase. At the discretion of AURAL LTD, OHM (UK) LTD, the defective item will be repaired/replaced with no charge for materials or labour. The item is to be adequately packed and dispatched, pre-paid, to an OHM authorised distributor/service centre. Unauthorised repair shall void the warranty. The OHM warranty does not cover cosmetics or finish and does not apply to any item which in OHM's opinion has failed due to user abuse, accident, modifications or any type of misuse.

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