

## KORA Line array Datasheet



Kora 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 Kora-S flying subwoofer. Kora integrates a 4-point rigging system into both models, making Kora a flexible solution for both install and touring alike.

The Kora is a bi amp design with a nominal impedance of 8 ohms for both the high & low frequency section. Featuring 2 x 8" proprietary woofers in a reflex tuned enclosure with dual 4" neodymium planer wave drivers. An SPL of 142dB (peak), or in a concert array of 8 boxes SPL of 155dB (peak). KORA's frequency response is from 74 Hz to 21 kHz. This can be extended down to 28 Hz when used with Kora-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 Kora array frame is a single and multi-point flying frame which is perfect for ground stacking or flying Kora, Kora-S and self-powered versions. The same hardware can be used when ground-stacking KORA on TR-118/218.

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

101 dB LF / 114 dB HF

## Max. SPL

128 dB cont. 134 dB peak LF  
136 dB cont. 142 dB peak HF

## Frequency Response ( $\pm 3$ dB)

81 Hz - 20 kHz

## Usable Frequency Range (-10 dB)

74 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

Omega DSP Solutions

### Speaker Cables

Min - 4 x 2.5 mm<sup>2</sup>  
Preferred - 4 x 4 mm<sup>2</sup>

## PRODUCT FEATURES

### Components

2 x 8" 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

Kora Flying Hardware

### Optional

K-AF Kora array frame

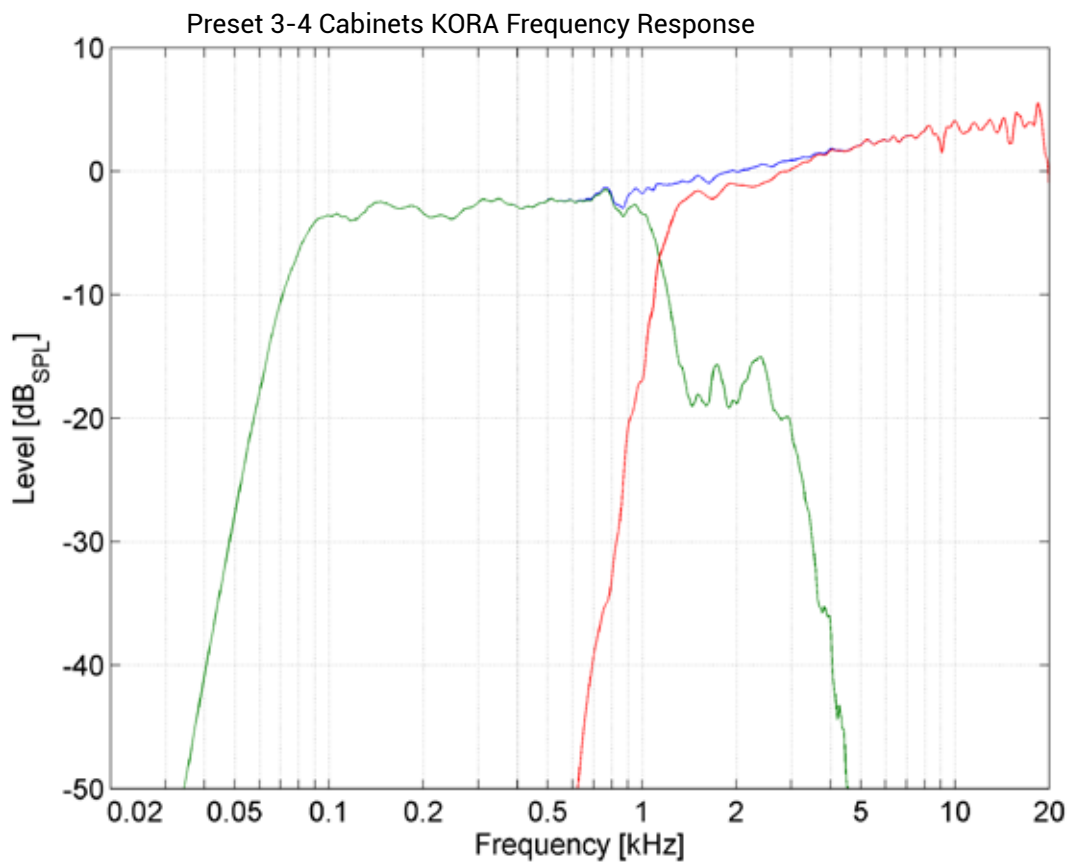
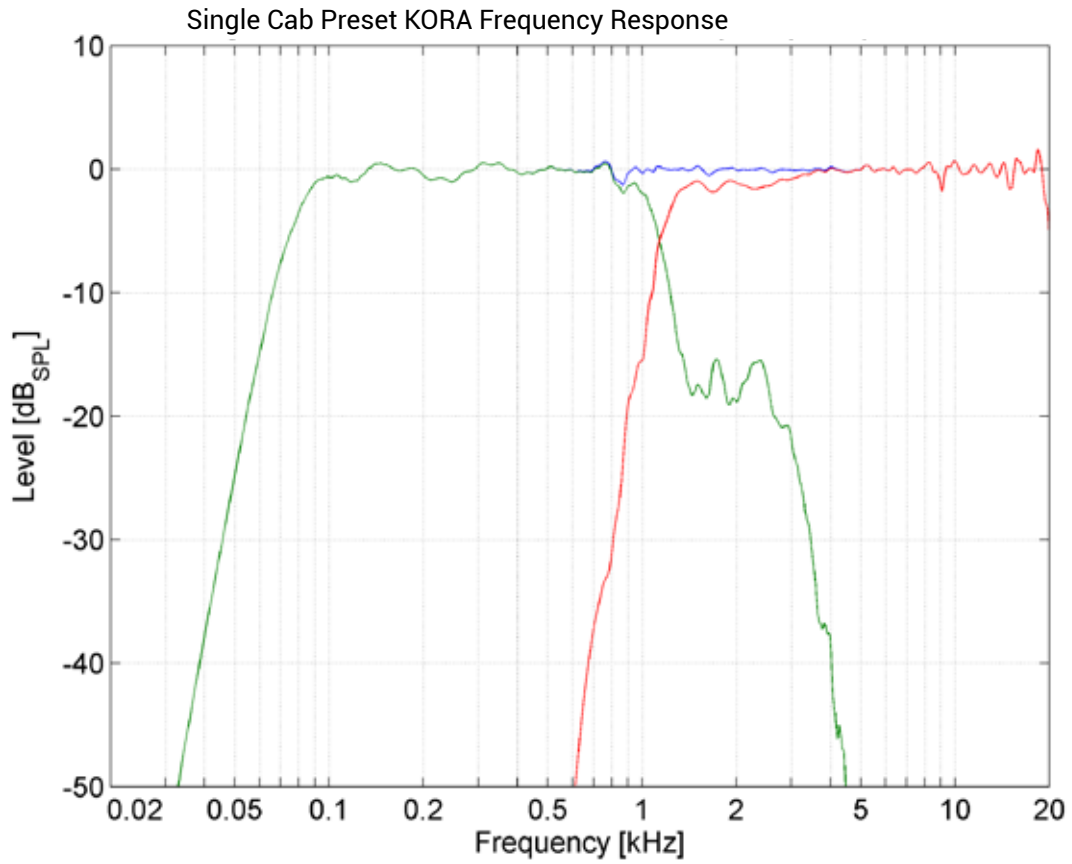
### Additional Descriptive Data

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

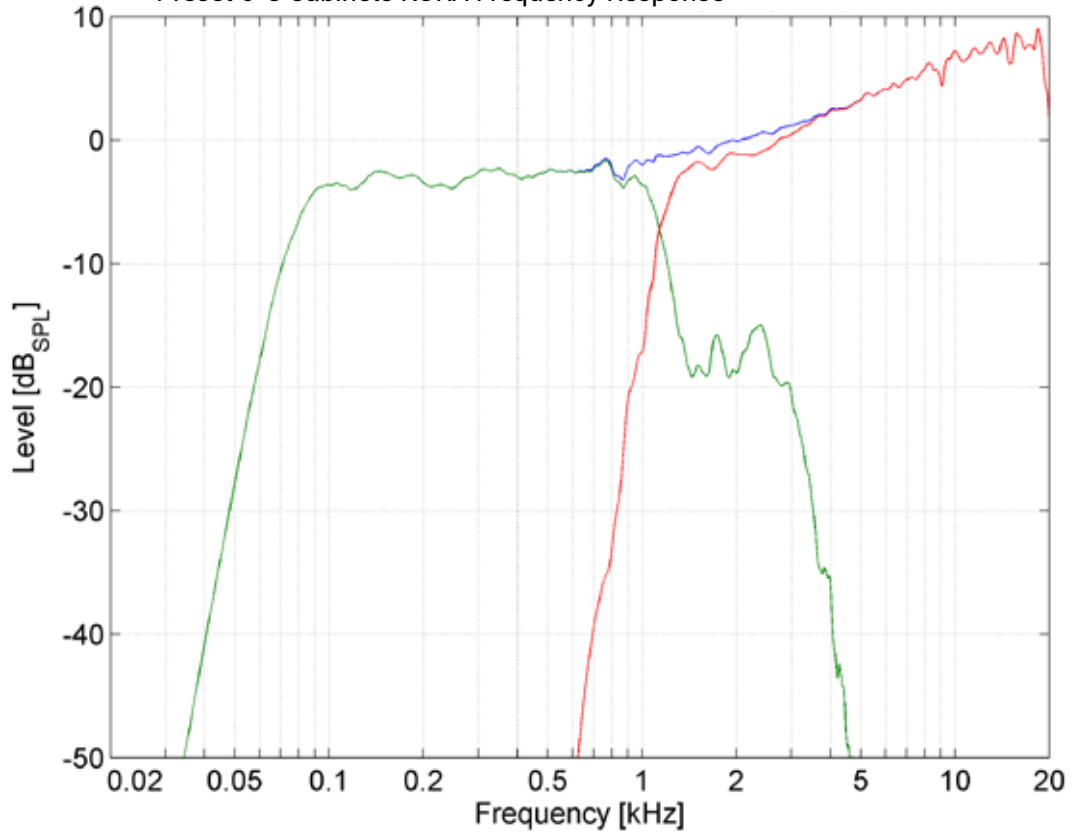
**Recommended filter settings are available on the website [Omegaproaudio.co.uk/downloads](http://Omegaproaudio.co.uk/downloads)**

\* All presets from the Omega library.

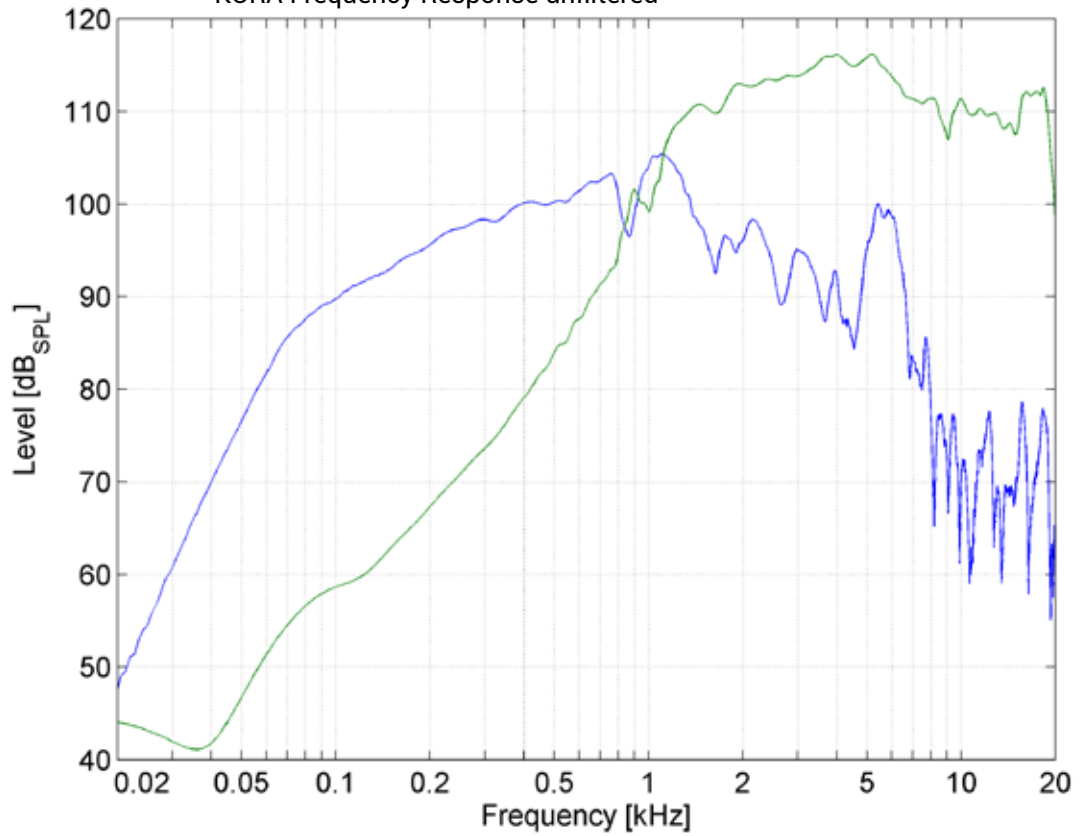
## KORA Measurements

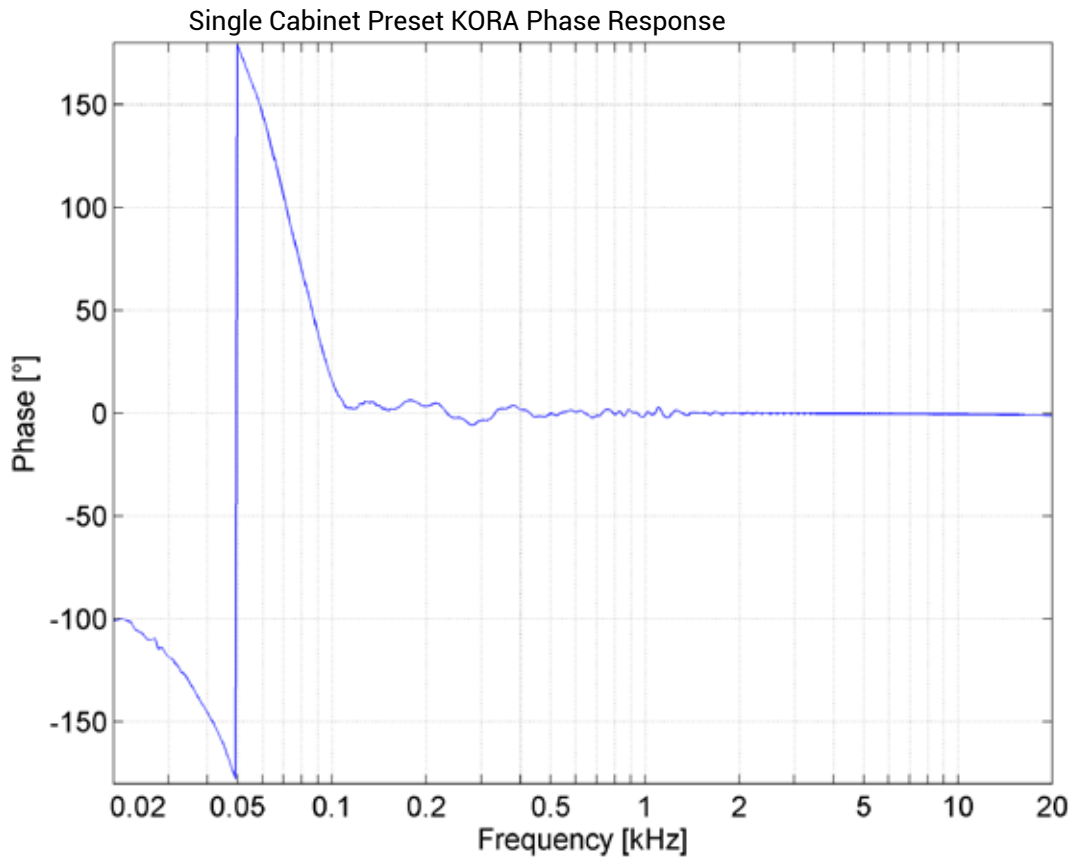
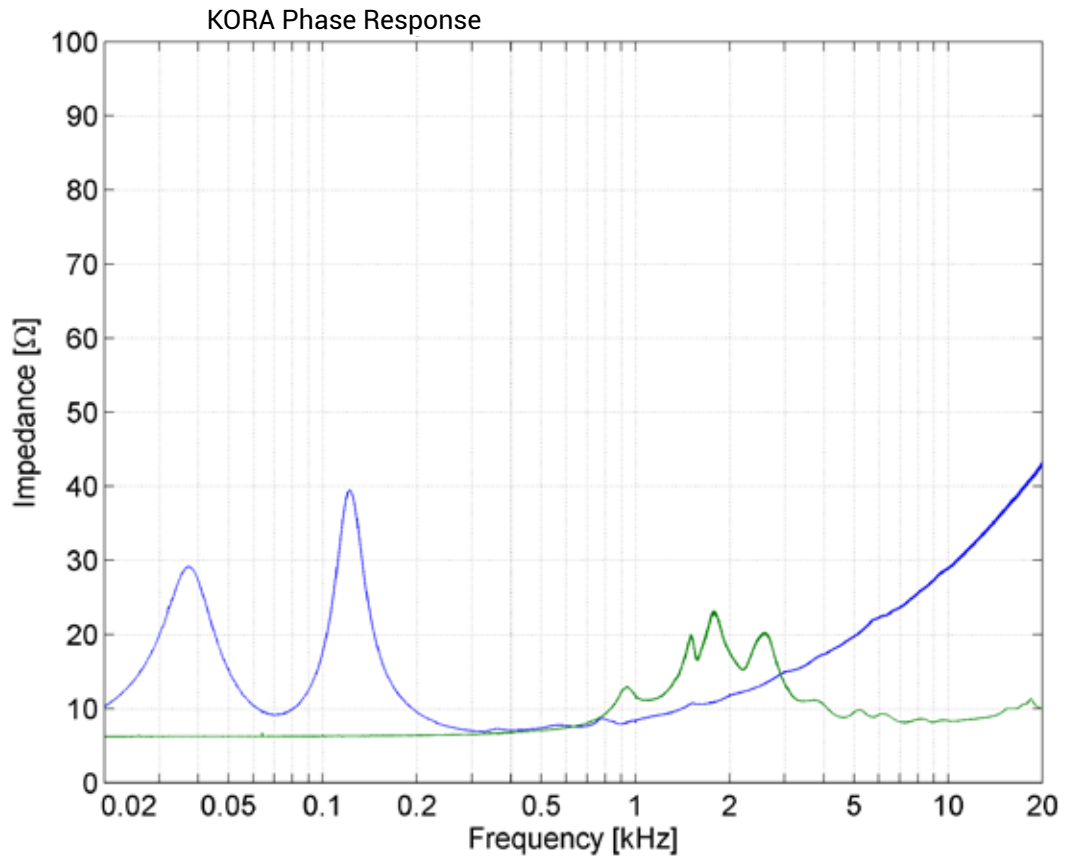


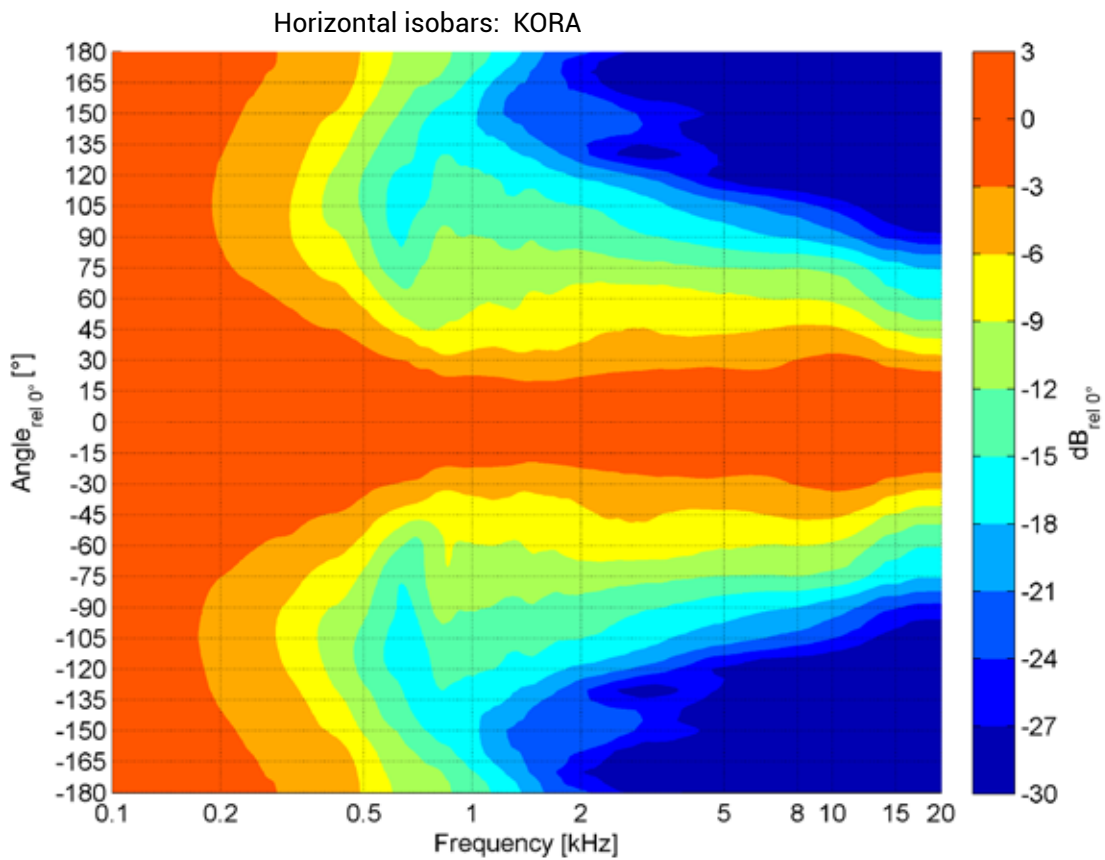
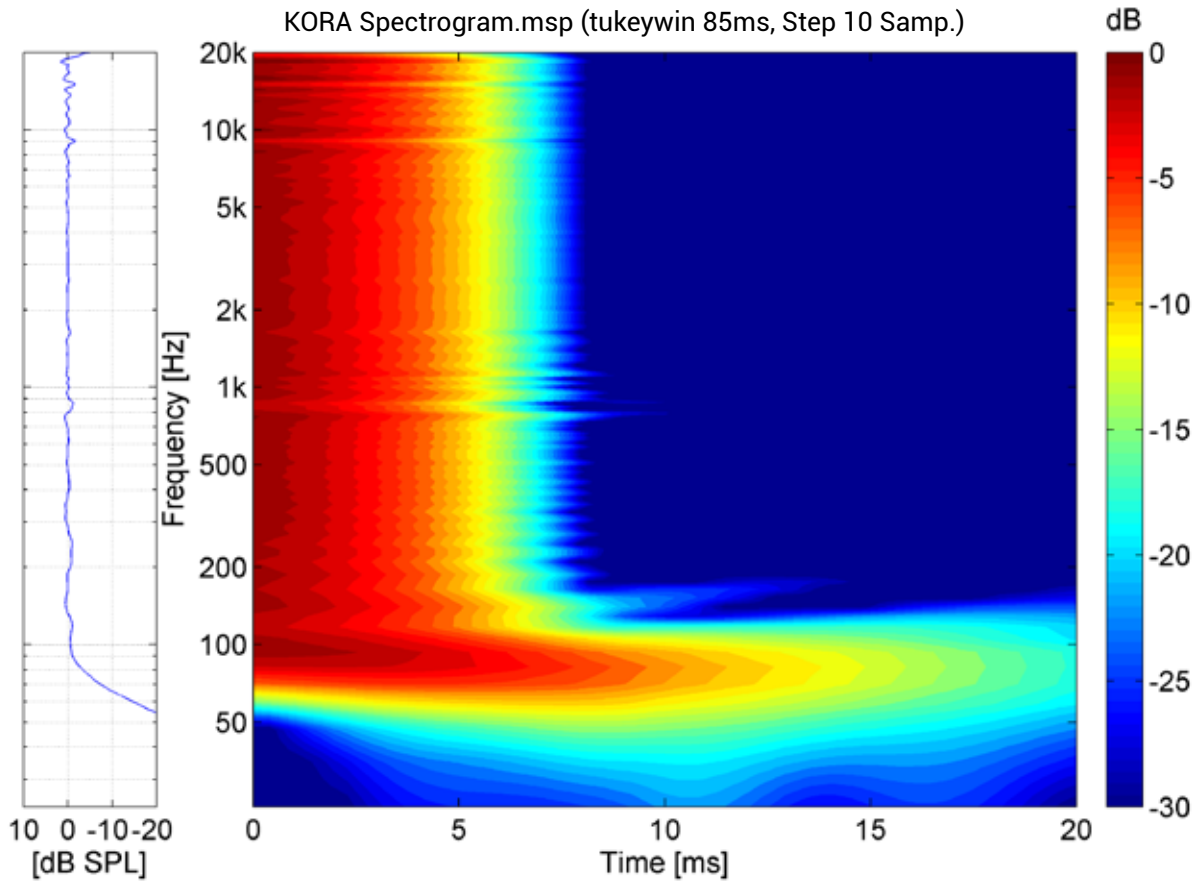
Preset 6-8 Cabinets KORA Frequency Response



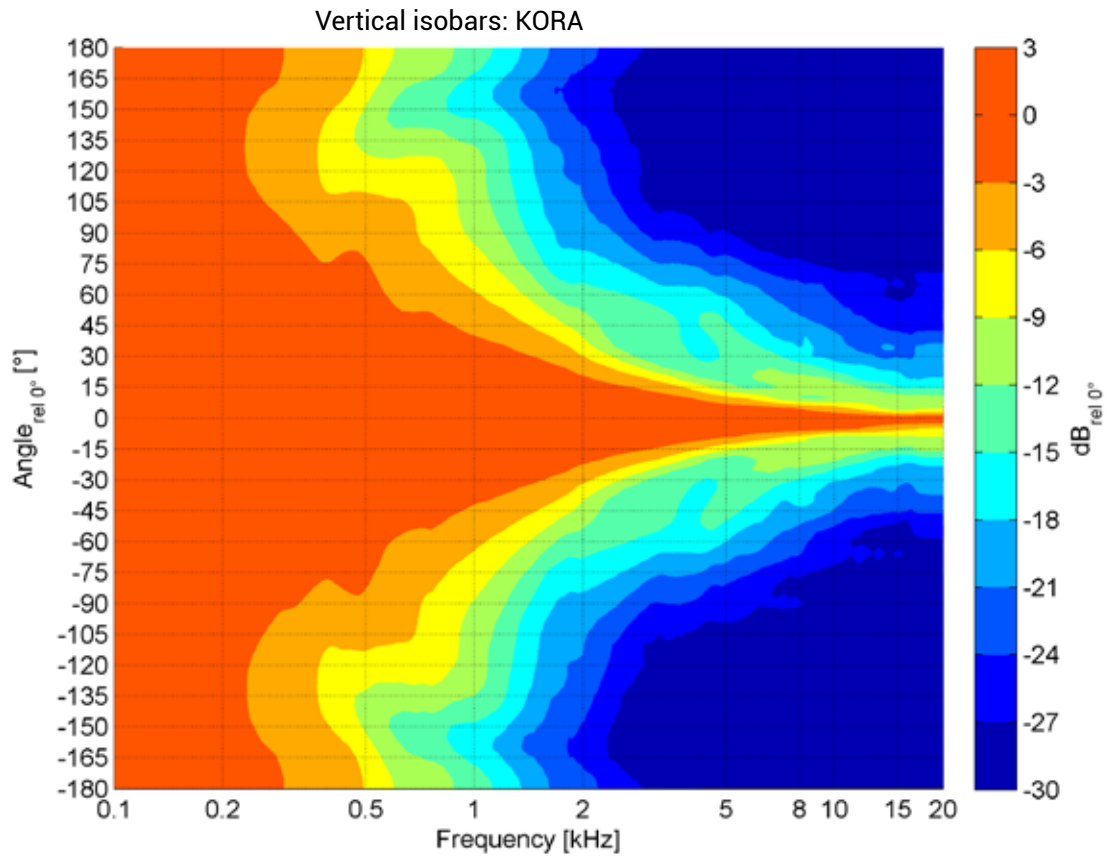
KORA Frequency Response unfiltered









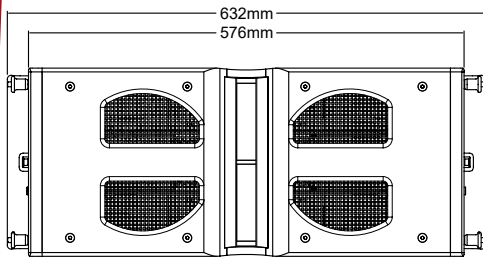


All Measurements are executed by the IFAA Institute for Acoustics in Aachen, Germany  
measurement conditions 4Pi environment for full range cabinets, 2Pi environment for subwoofers.

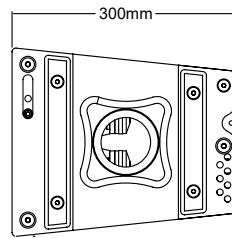


## KORA Dimensions

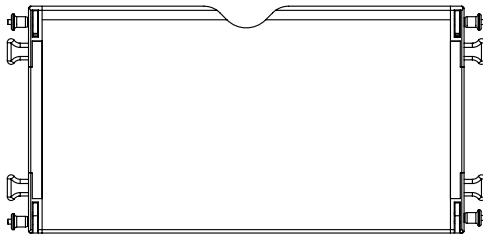
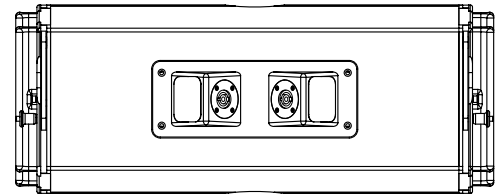
Front



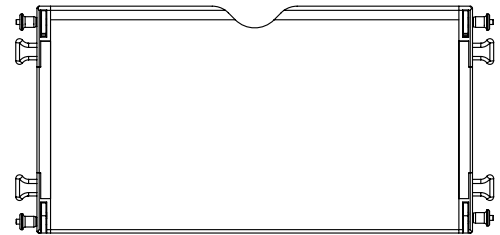
Side



Back



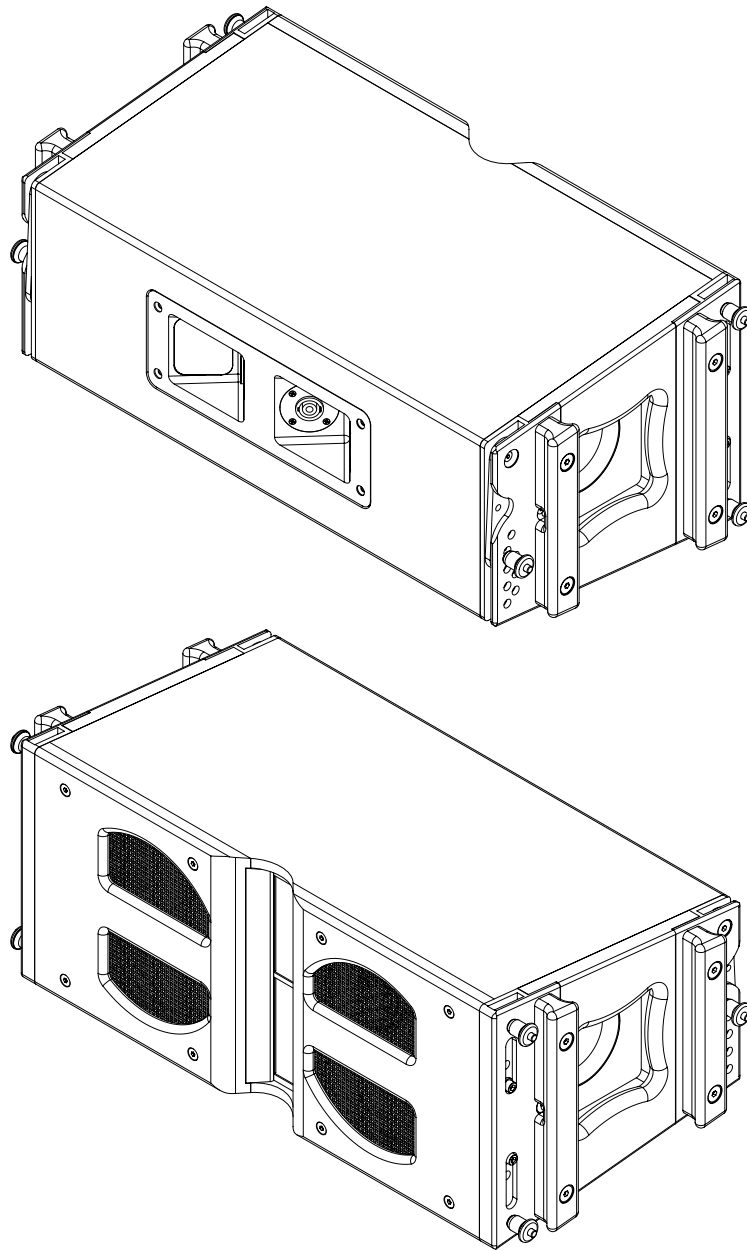
Bottom



Top

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

## KORA 3D View



## Accessories and Spare Parts

- KORA Flying Hardware
- K-AF KORA Flying Array Frame
- KORA backplate and crossover
- 8" low frequency driver
- 4" planar wave
- Steel Omega 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" 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 Omega logo shall be fitted to the front.

## Technical Data:

Frequency Response: 74 Hz - 21 kHz (-10dB), 81 Hz - 20 kHz ( $\pm 3$  dB), Continuous SPL: 128/136 dB/1m, Program SPL 131/139 dB/1m. Peak SPL 134/142 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 OMEGA 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 OMEGA mounting hardware, as this has been specified and approved by KHZ LTD, for use with OMEGA speakers.
5. When flying speakers, appropriate materials and techniques must be employed in order

## Safety Instructions Cont.

to safely suspend enclosures, taking care to allow for specified enclosure weight.

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 OMEGA DSP Solutions. Only technicians authorised by KHZ LTD are qualified to program digital controllers. Take note of recommended controllers as specified on the datasheets. Do not use OMEGA 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.

OMEGA 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 KHZ 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 OMEGA authorised distributor/service centre. Unauthorised repair shall void the warranty. The OMEGA warranty does not cover cosmetics or finish and does not apply to any item which in OMEGA's opinion has failed due to user abuse, accident, modifications or any type of misuse.

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