

KORA-A Line array Datasheet



KORA is a self powered 2 kW, 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-SUB flying subwoofer. KORA integrates a 4-point rigging system into both models, making KORA-A a flexible solution for both install and touring alike.

Using high-power Class D amplifiers with integrated DSP, this self-powered cabinet has 4 dedicated amplification channels allowing each component to be directly driven, this removes crossover distortion and increases audio quality. Full FIR filtering adds further detail and definition, this coupled with RMS and Peak limiters ensure the system stays within safe working parameters.

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-A's frequency response is from 74 Hz to 21 kHz. This can be extended down to 28Hz 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 a 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-A, KORA-S and self-powered versions. The same hardware can be used when ground-stacking KORA-A on TR-118/218.

Each KORA-A is a lightweight 22.4 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 an input (female XLR), a link (male XLR) connector and a powerCON®True1 connector input and link fitted as standard.

Key features:

- Medium throw, full range line array component
- Touring grade cabinet
- Dual layer thermal relief driver technology
- Phase-plug controlled LF driver with Integrated HF waveguide
- Advanced active dispersion gives 100° x 12° coverage
- Easy ground-stacking of up to 6 cabinets per frame
- Fly up to 12 cabinets per frame.
- Integrated Class D Power module
- World-wide voltage compatibility
- Full FIR-filtered DSP with linear phase outputs
- Fully integrated Look-Ahead and RMS limiters
- Full input and output protection modes
- 32 bit floating-point signal processing
- Analog Devices Sharc processor
- Wide dynamic range 128dB(A) input converter

Technical Specifications

Design

Active Linearray with integrated FIR-DSP,
2 x 8 " Mid-bassunits phaseplug coupled to
a common waveguide with 2 x 4" Mid-high
Planar Wave Drivers

Internal Power Amps

1000w +1000w

Internal DSP

Full FIR-DSP with linear phase X-over and
linear phase loudspeaker equalization

Sensitivity Chassis 1w/1m

101 dB LF / 114 dB HF

Max. SPL

134 dB cont. / 142 dB peak (frequency
dependent)

Frequency Response (±3 dB)

81 Hz - 20 kHz

Usable Frequency Range (-10 dB)

74 Hz - 21 kHz

Dispersion

100 x 12°

SYSTEM OPERATION

System Controller

Omega DSP Solutions

Input connection

Sym . XLR input, 2 x 10 K ohm Impedance
with parallel link out

Protection

Internal multiband Peak and RMS Limiter,
thermal limiter and protection on Amplifier

PRODUCT FEATURES

Components

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

Crossover

1.15 kHz FIR Filter

Connectors

1 x XLR female, 1 x XLR male and 1 x
powerCON® True1 connector.

Dimensions (H x W x D mm)

250 x 576 x 300

Weight (kg)

22.4

Shipping Weight (kg)

24.3 (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 Cora array frame

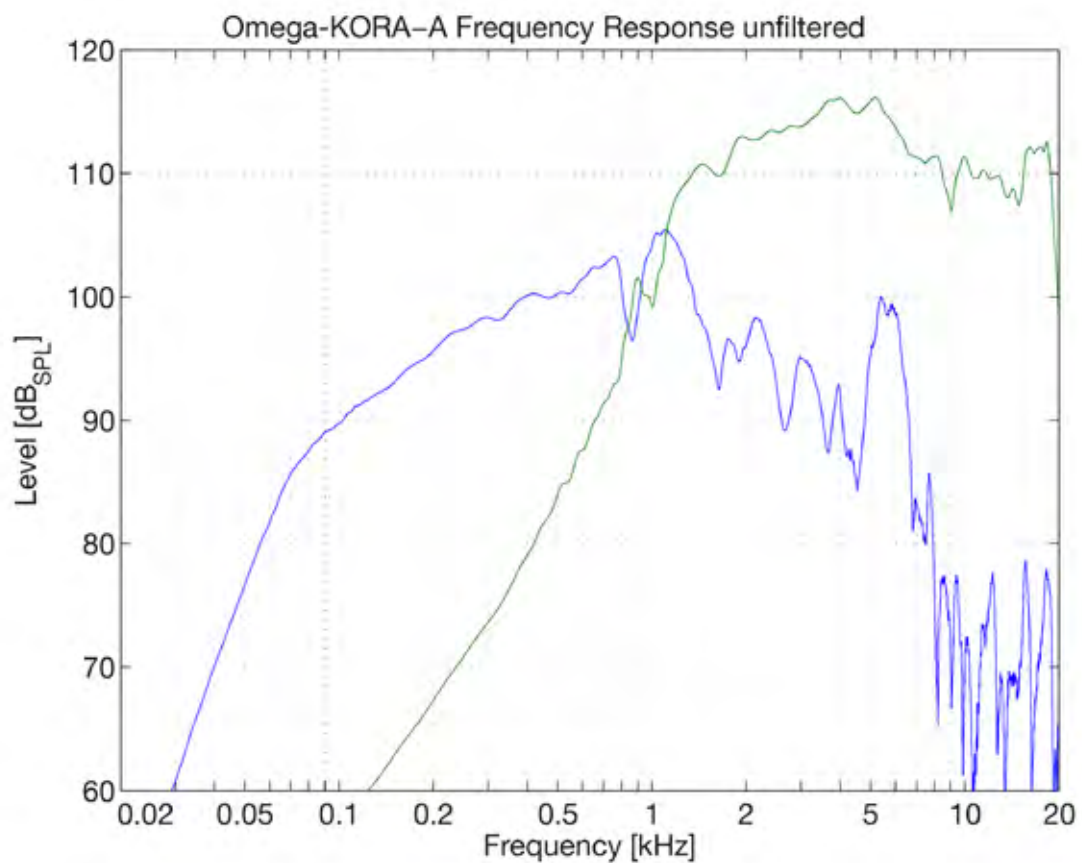
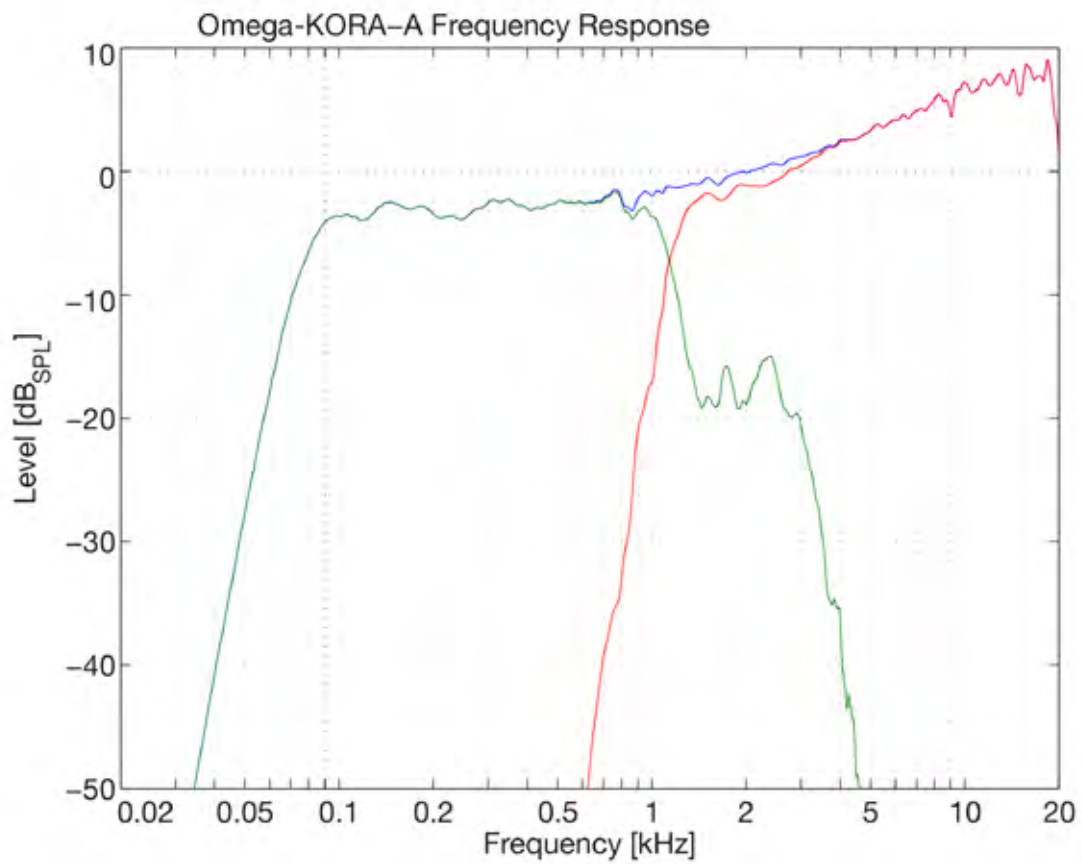
Additional Descriptive Data

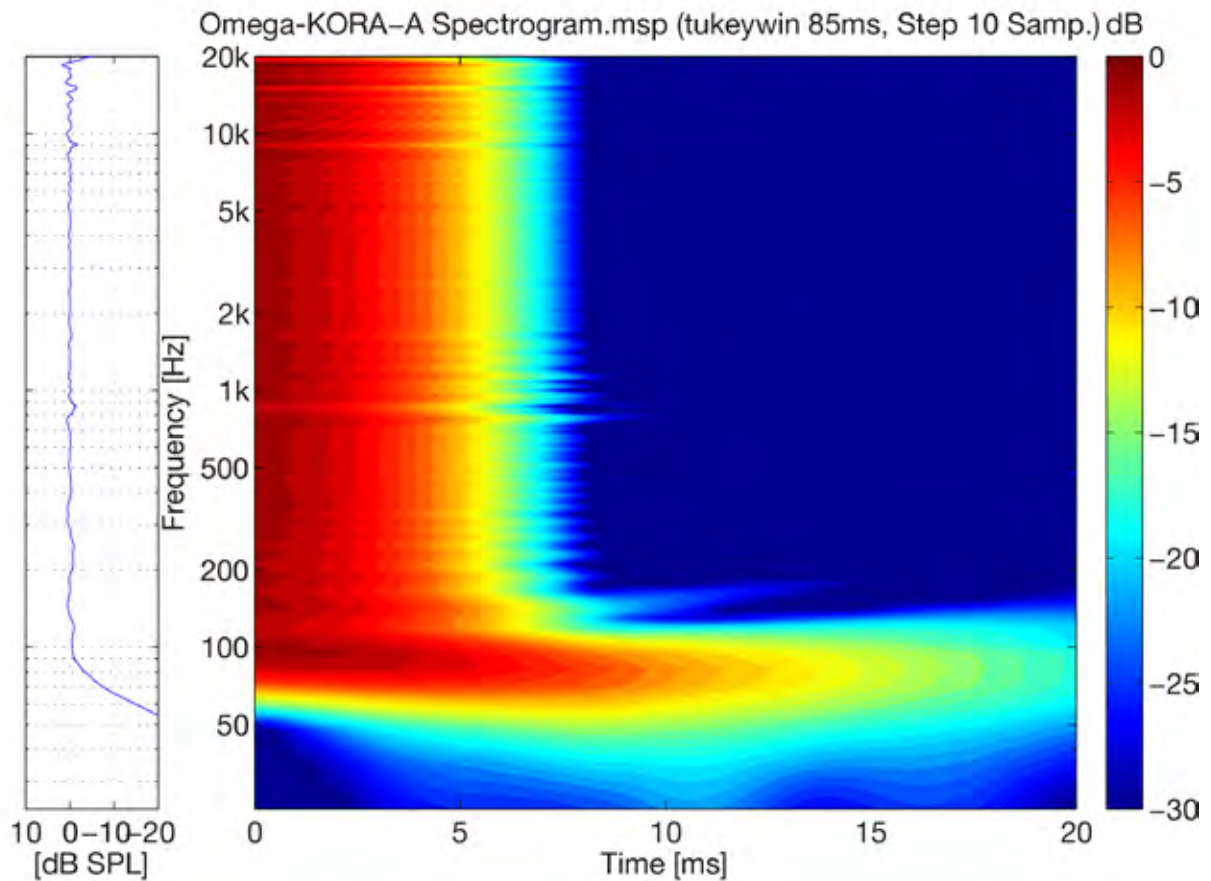
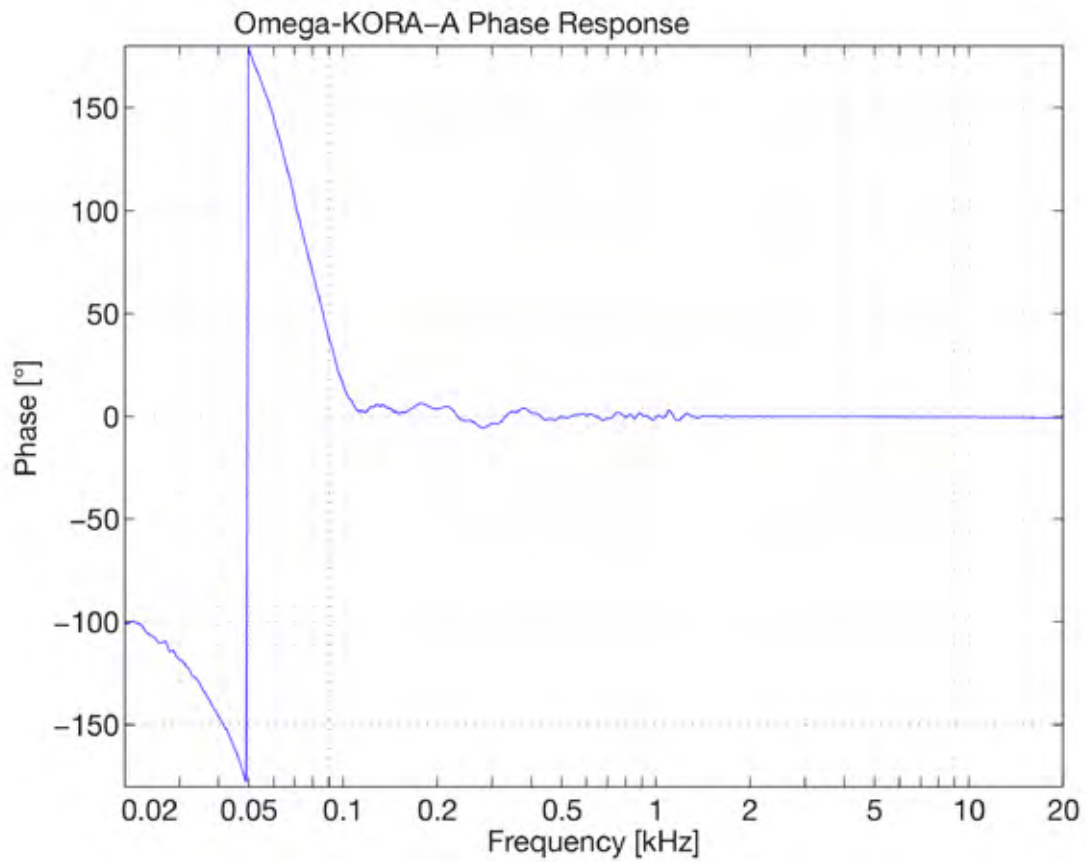
Birch plywood construction, with durable
scratch resistant black polyurea paint finish
with Omega logo.

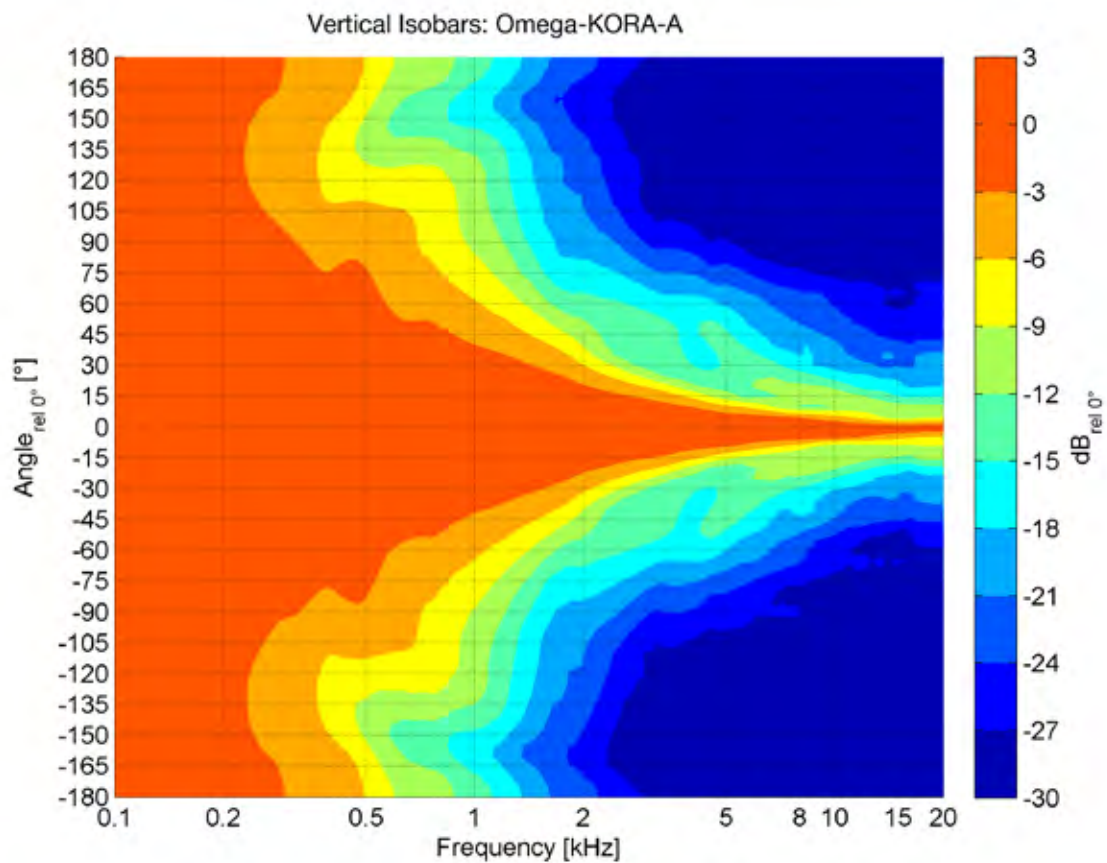
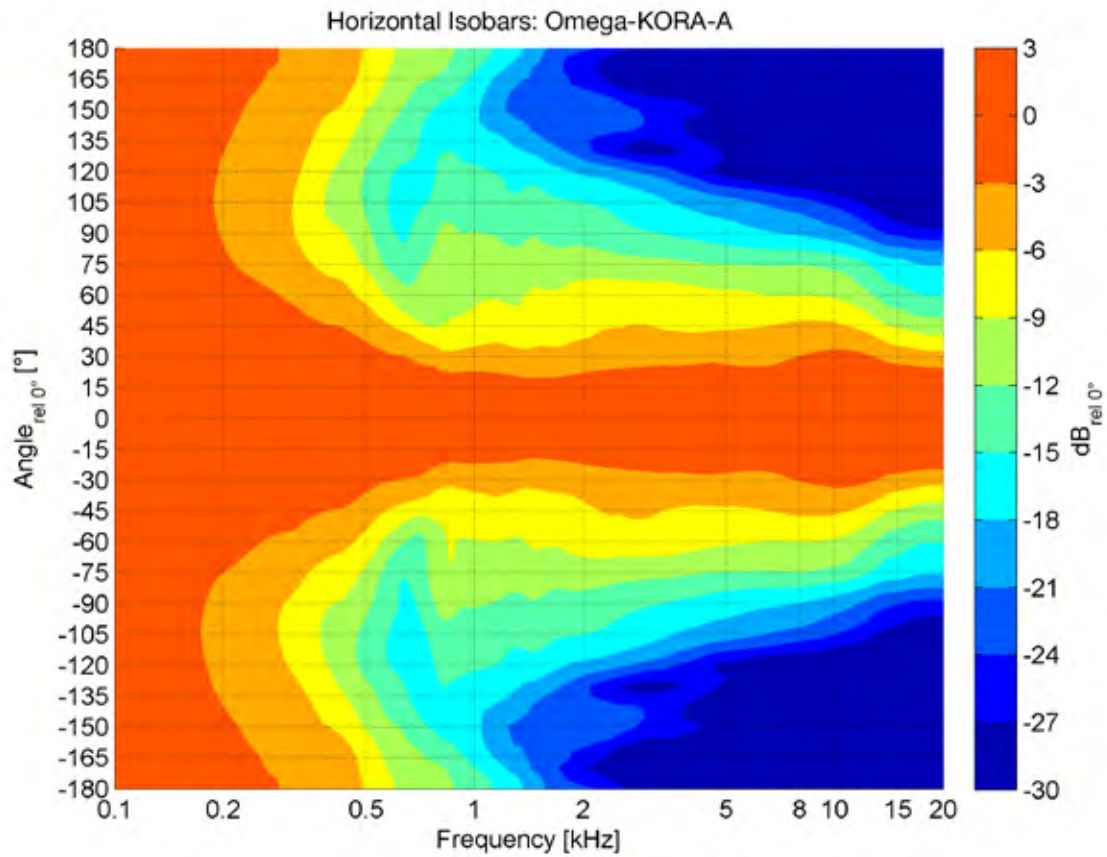
**Recommended filter settings are available on
the website omegaproaudio.co.uk/downloads**

* All presets from the Omega library.

CORA-A Measurements



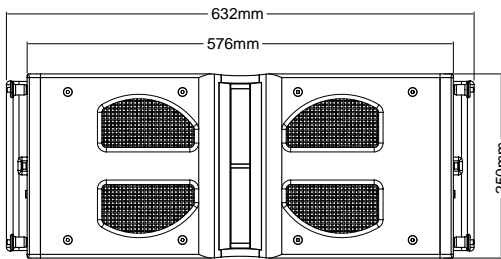




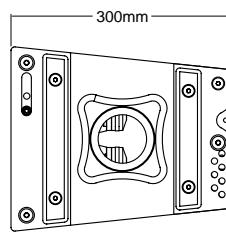
All Measurements are executed by the IFAA Institute for Acoustics in Aachen, Germany
measurement conditions 4Pi environment for full range cabinets, 2Pi environment for subwoofers.

CORA-A Dimensions

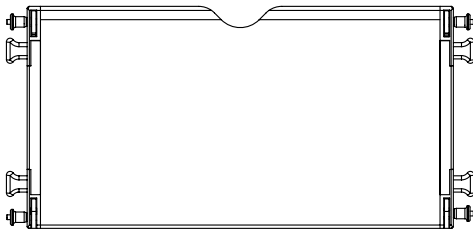
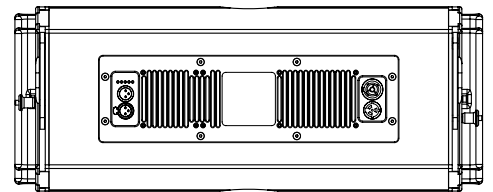
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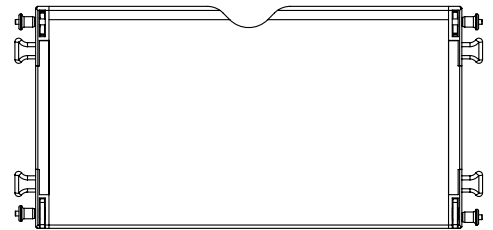
Side



Back



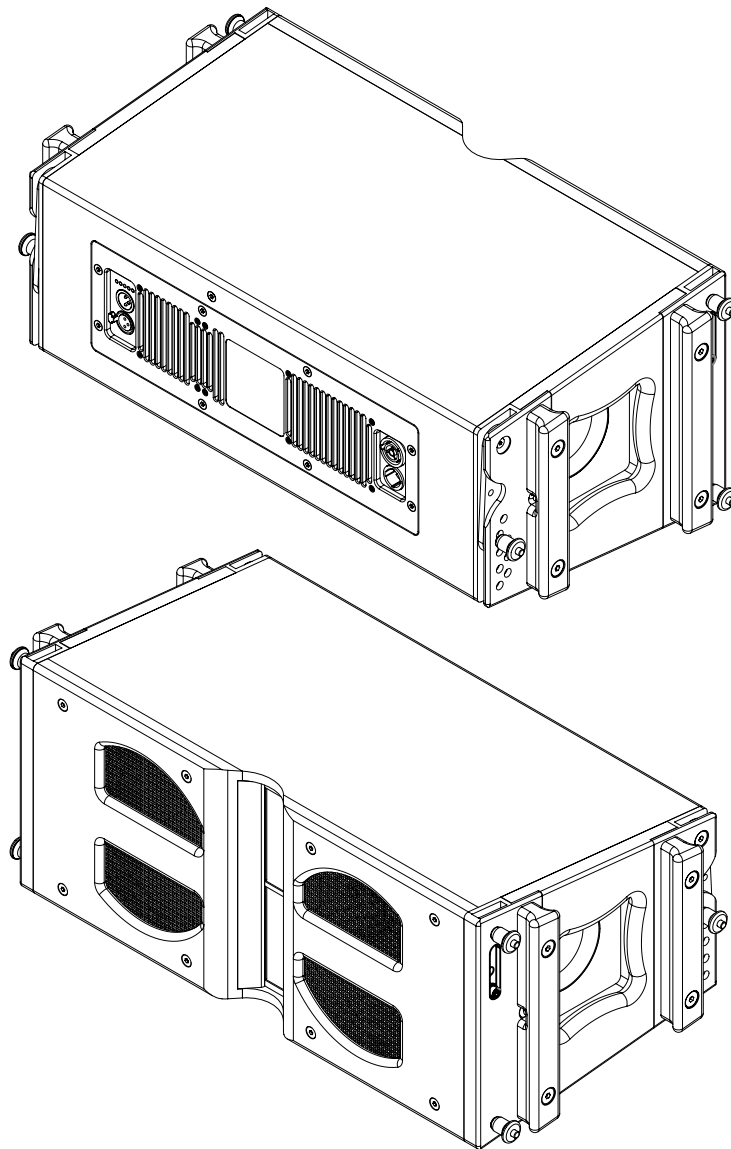
Bottom



Top

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

CORA-A 3D View



Accessories and Spare Parts

- KORA Flying Hardware
- K-AF KORA Flying Array Frame
- KORA steel grill assembly
- KORA amplifier
- 8" low frequency driver
- 4" planar wave
- Steel Omega logo

Architects' & Engineers' specifications:

2 way dynamic line array cabinet incorporating a phase-plug controlled waveguide. Housing 2 x 8" proprietary drivers, internally and externally ventilated double sided high temperature voice coil, 2 x 4" planar wave drivers mounted to a 100° x 12° waveguide integrated LF & HF drivers for a fully coherent phase response. Homogeneous radiating behaviour and linear response from 200 Hz. Integrated active amplifier. Constructed from different multi-laminated wood, eco friendly scratch resistant polyurea paint. Integrated Flying hardware for hanging or ground stacking. Ergonomic butterfly carry handles and recessed Omega logo.

Technical Data:

Frequency Response: 74 Hz - 21 kHz (-10dB), 81 Hz - 20 kHz (±3 dB), Continuous SPL: 128 LF / 136 HF dB/1m, Program SPL 131 LF / 139 HF dB/1m. Peak SPL 134 LF / 142 HF dB/1m cont. IEC268 AES, Maximum Output: 1000 Watt RMS LF + 1000 Watt HF, Dispersion Nominal: 100° x 12° (hor. x vert.), Connectors: 1 x XLR female, 1 x XLR male and 1 x powerCON® True1 connector. Dimensions (H x W x D): 250 mm x 576 mm x 300 mm Weight: 22.3 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 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.

Safety Instructions Cont.

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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