



AiRAY Systems incorporate Coda's most advanced technologies; including the DDP-Driver (Dual Diaphragm Planar-wave-driver), the unique AiCOUPLER, the award winning sensor controlled subwoofer technology and linear phase DSP processing.

FEATURES:

- 2x 12", 3-way high output system
- Exceptionally compact (674 x 359 x 570 mm)
- Exceptionally light ~38 kg
- High power handling of 2000 W
- Frequency range: 50 Hz – 22 kHz
- Variable horizontal coverage of 110° or 80° or 95° asymmetrical (40°+55°)
- Superior sound with linear phase response
- Vertical curving 0.25°, 1° to 8° in 1°-steps
- Integrated 3 point rigging system for flown or ground stacked arrays compatible to ViRAY, SC2-F and SCV-F
- Multiplex enclosure with Polyurea coating for extreme durability and water protection
- System integration with LINUS RACKS

OVERVIEW

The AiRAY is a fully integrated compact 2x 12" / 3-way line array system, designed for wide varieties of applications where high output, even coverage and outstanding intelligibility is required.

The AiRAY unique package brings together the high output of a large system with the flexibility of a compact system creating a new category in large reinforcement systems.

BENEFITS

Reduced cost of operation:

Designed to be set up from a single person, AiRAY considerably reduce the operating cost of the system, increasing the profitability of the sound company:

Half the size of conventional 2x 12" systems (674 x 350 x 560 mm)

Half the weight of conventional 2x1 2" systems (~38 kg)

Half the transport dimensions of conventional 2x 12" systems (8x AiRAY on one transport dolly)

Half the setup time of conventional 2x 12" systems

Half the amplifier channels needed (2 channels)

Half the loudspeaker multicore cables needed

FULL OUTPUT AND BANDWIDTH

Sharing system components with ViRAY reduces the investment cost:

Usually a sound system is a package of different system components like low-extensions, subwoofers, frames, amplification etc. Therefore investing in a new system requires the purchase of its specific system components increasing considerably the cost.





AiRAY shares the same system components like ViRAY, including SC2-F – low extension, SCV-F – flyable subwoofer, LINUS RACKs and of course all sensor controlled subwoofers like SCP or SC8. Even the cabling of AiRAY and ViRAY in bi-amp is identical. The FR-AR frame can carry AiRAY, ViRAY, SC2-F and SCV-F.

AiRAY and ViRAY are acoustically and rigging compatible and can be used together in the same array.

It allows ViRAY users to upgrade easily to AiRAY using their existing SC2/SCV cabinets, LINUS RACKs, cables etc.

VERSATILITY

Conventional 2x 12" systems are usually used for larger events like Arena shows, large theaters, festivals etc. The large size, weight and less flexibility of those systems as well as higher operating costs make them not well suitable for small and medium applications like corporate events, club tours or small theaters. Therefore sound companies need to keep different systems for different applications.

AiRAY changes the rules. The system actually combines the size, weight, rigging, flexibility, amplification and cabling of a compact system with the high SPL of a large system.

As a result a sound company can cover all those applications using the same AiRAY system.

UNIQUE SOLUTIONS

In various venues (like older theaters) the load capacity of the ceiling is limited, as a result suspending large line array systems is impossible. The usual compromise is to use smaller sound systems resulting in insufficient sound pressure.

AiRAY is an excellent solution for such applications providing high SPL from a compact and light system with outstanding clarity.

STRAIGHTFORWARD SETUP

All you need is ONE RACK, ONE CABLE and 12 AiRAYs each side for 8.000 to 10.000 venue (plus subs on demand).

ACOUSTICAL DESIGN

Dual Diaphragm Planar-wave-driver (DDP)

At the heart of the AiRAY are two 6" dual diaphragm planar-wave-drivers.

Each driver is in fact a 2-way coaxial system employing two concentric annular ring diaphragms. Each diaphragm covers a smaller frequency range for increased power handling, high dynamic and extremely low distortion.

The larger annular midrange diaphragm covers the frequency range 350 - 6.500 Hz with a smooth, linear response. The extended diaphragm excursion of max. + / - 0,8 mm results in high output and increased power handling up to 1300 W peak.

The ultra light annular diaphragm for the high range offers exceptional transient response with very high efficiency from 6 to 22 kHz.

This distinctive new transducer was engineered to radiate a true coherent planar wave front from a rectangular piston without internal diffraction for superior dispersion control and high fidelity sound.

The patented design is a result of extensive, dedicated research and development providing dramatic improvement in dynamic response, clarity and transparency.



Low frequency

The AiRAY contains double 12" neodymium ultra low distortion cone drivers with 4" voice coils. The new developed extreme efficient long excursion drivers have high flux linear motors with four demodulation rings for constant inductance, ultra low distortion and reduced power compression. The carbon fiber diaphragm minimizes the moving mass while improving cone stiffness and internal damping to achieve high sensitivity and outstanding clarity.

AiCOUPLER

The AiCOUPLER sums the energy from all transducers into a large mutual horn that performs as a single source, without phase distortions achieving a coherent and uniform wavefront. In fact the horn occupies the entire front of the cabinet increasing efficiency and providing uniform power response and directivity control over a wide frequency range.

The large waveguide for the two DDP drivers enables perfect acoustical loading down to 350 Hz with excellent horizontal pattern control through the mid/high range.

The two 12" cone drivers are symmetrically loaded to the AiCOUPLER using multiple, optimally spaced slots to increase the distance between their acoustical centers, providing consistent coverage down to 250 Hz and additional sensitivity of 6 dB over 200 Hz. Backwards the two cone drivers are port loaded to extend the low range of the system down to 50 Hz.

The two DDP drivers cover the range 350 Hz to 22 kHz while the double 12" work from 50 Hz to 700 Hz. In the 350 – 700 Hz range all drivers work together, dramatically increasing the maximum SPL output capability of the system.

APPLICATIONS

Designed for touring and installation applications, the AiRAY is perfectly suited for arenas, theaters, houses of worship, corporate events, clubs and touring.

FULLY INTEGRATED SYSTEM SOLUTION

AiRAY is a fully integrated sound reinforcement system including LINUS control racks as an integrated solution for DSP control, amplification, I/O audio routing, network remote control and diagnostic. The touring package comprises transport dollies, rigging accessories, protection covers etc., reducing significantly the set up time.

The SC2-F 2x15" sensor controlled bass extension overlaps the low range of AiRAY, enhancing the low frequency headroom and increasing the long throw capability of the system.

The SC8 or SCP sensor controlled subwoofers provide an extension down to 25 Hz.



SPECIFICATIONS AiRAY:

Type	3-way bi-amplified line array module
Frequency response	50 Hz - 22 kHz (-6 dB)
Power handling	
Low AES / peak	2000 / 8000 W
Mid / High AES / peak	300 / 2600 W
Sensitivity low 1 W / 1 m	103 dB
Sensitivity mid / high 1 W / 1 m	114 dB
Maximum peak SPL (with LINUS10)	
Low	143 dB
Mid / High	148 dB
Cabinets per LINUS10	Optimal 2x, maximal 3x
Dispersion horizontal	110°, 80° or 95° (55° + 40° or 40° + 55°)
Dispersion vertical	Array dependent: 0.25°, 1° to 8° in 1°-steps
Components	
Low frequency	2x 12" neodymium, water resistant cones 4" (101.6 mm) voice coil, 1000 W (AES) each
Mid/High frequency	2x 6" DDP (Double Diaphragm Planar-wave-drivers) Mid: 3.5" (90 mm) voice coil, 150 W (AES) each High: 1.75" (44.4 mm) voice coil, 80 W (AES) each
Crossover point	400 Hz bi-amp, 6.300 Hz passive
Input connectors	2x Neutrik™: 1x Input + 1x Link
Nominal impedance LF / MF+ HF	8 Ohm (1+/1-) / 16 Ohm (+2/-2)
Enclosure material	Baltic birch
Finish	Polyurea coating (water resistant)
Flying hardware	Integrated
Dimensions (W x H x D)	674 x 356 x 555
Net weight	38.5 kg