ONE for ALL –
The most flexible solution for medium size applications

FEATURES:

- 3-way Arrayable Point Source
- Unique 9” Dual Diaphragm Curved-wave-driver (DDC)
- Dual 10" neodymium ultra low distortion cone drivers
- APS-COUPLER sums the energy from all transducers to perform as a single source
- Integrated rigging system for horizontal or vertical arrays as well as Single use
- Variable horizontal coverage: 120°, 90°, 60° or asymmetrical: 105° (45°+60°); 90° (30°+60°); 75° (30°+45°)
- Variable vertical coverage of 20° (one cabinet), 40° (two cabinets), 60° (3 cabinets) etc. up to 360° (18 cabinets)
- Linear phase response for superior fidelity
- Frequency range: 50Hz – 22kHz
- Exceptionally high sound pressure
- Multiplex enclosure with Polyurea coating for extreme durability and water protection
- Subwoofer extension down to 28Hz with APS-SUB
- System integration with LINUS amplifiers

OVERVIEW

The APS is a compact 2x 10” / 3-way arrayable point source that combines the user-friendliness of a point source with the perfect arrayability of a line array creating a unique category reinforcement system for medium size venues.
Now, one system can do many jobs. As a single speaker, stage fill or a main array, the flexibility of the APS system allows users to achieve repeatable, superior results in small to medium size applications with a single, simple, elegant and flexible solution.

BENEFITS

Installations:
The real world challenges of many installations require designers to use several different loudspeaker systems to achieve their goals. In a single theater application the demands on a loudspeaker positions can range from wide coverage to more focused , high to low sound pressure, spot fills to mains arrays, etc…..
Now a sound designer can specify just one system for everything.

- Point source providing flexible coverage
- Arrayability allows additional sound pressure and further dispersion options

APS arrays provide a coherent sound and a coherent look making it simple to integrate in dance clubs, theaters, house of worship, live venues, sport facilities, small stadiums and in almost all medium sized venues.

Mobile users:
Scalable, cost effective system package for corporate events, clubs, small open airs, bands, DJs and almost all small to medium applications. Its flexibility means it has a job to do on every event large or small.

ACOUSTICAL DESIGN
APS systems incorporate Coda's most advanced technologies including a patented DDC-Driver (Dual Diaphragm Curved-wave-driver), the unique APS-COUPLER and linear phase DSP processing.

Dual Diaphragm Curved-wave-driver (DDC)
At the heart of the APS is a patented 9" dual diaphragm 20° curved-wave-driver.
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 400 - 6500 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 20° curved wave front form 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 APS contains double 10" neodymium ultra low distortion cone drivers with 3" 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.

APS-COUPLER
The APS-COUPLER sums the energy from all transducers into a large mutual horn that performs as a single source, without phase destructions 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 DDC driver enables perfect acoustical loading down to 400 Hz with excellent horizontal pattern control through the mid/high range.

The two 10” cone drivers are symmetrically loaded to the APS-COUPLER using multiple, optimally spaced slots to increase the distance between their acoustical centers, providing consistent coverage down to 300 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 DDC driver cover the range 400 Hz to 22 kHz while the double 10” work from 50 Hz to 800 Hz. In the 400 – 800 Hz range all drivers work together, dramatically increasing the maximum SPL output capability of the system.

VERSATILITY

To maximize precise coverage, and therefore maximize application results, user selectable horizontal coverage of 120° / 90° / 60° or asymmetrical: 105° (45°+60°); 90° (30°+60°); 75° (30°+45°)100° (60°+ 40°) or (40°+ 60°) are available, allowing for very accurate audience coverage, reduced possibility of reflections and resulting in outstanding system intelligibility.
Vertical coverage is variable by simply adding elements: 20° (one cabinet), 40° (two cabinets), 60° (3 cabinets) etc. up to 360° (18 cabinets).

FULLY INTEGRATED SYSTEM SOLUTION

APS is a fully integrated sound reinforcement system including LINUS amplifiers as an integrated solution for DSP control, amplification, I/O audio routing, network remote control and diagnostics. The touring package comprises transport dollies, rigging accessories, protection covers etc.,

APS-SUB

An additional APS-SUB provides an extension down to 28 Hz.

APPLICATIONS

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

SPECIFICATIONS APS:

Type	3-way Arrayable Point Source
Frequency response	50 Hz - 22 kHz (-6 dB)
Power handling AES	
Low AES / peak	1200 / 4800 W
Mid / High AES / peak	150 / 1300 W
Sensitivity low 1 W / 1 m	100 dB
Sensitivity mid/high 1 W/1 m	111 dB
Maximum peak SPL (with LINUS14)	
Low	137 dB
Mid / High	146 dB
Cabinets per LINUS14	Optimal 2x, maximal 3x
Dispersion horizontal	120°, 90°, 60° or 105° (45°+60°); 90° (30°+60°); 75° (30°+45°)
Dispersion vertical	20°
Components	
Low frequency	2x 10” neodymium, water resistant cones 3” (77 mm) voice coil, 600 W (AES) each
Mid / High frequency	9” coaxial neodymium 20° Curved-wave-driver Mid: 3.5” (90 mm) voice coil, 150 W (AES) Hi: 1.75” (44.4 mm) voice coil, 80 W (AES)

Crossover point	500 Hz, 6.300 Hz passive
Input connectors	2x Neutrik™: 1x Input + 1x Link
Nominal impedance	8 Ω (+2/-2)
Enclosure material	Birch plywood
Finish	Polyurea black coating (water resistant)
Flying hardware	Integrated
Dimensions (WxHxD)	674 x 300 x 295
Net weight	27 kg

ACCESSORIES:

SYSTEM COMPONENTS:
APS-SUB
LINUS DSP-amplifiers

APS-SUB
Compact subwoofer

FEATURES:

- Compact 18” subwoofer
- Extended frequency range down to 28 Hz (-6 dB)
- Flyable or ground stackable in cardio or omni configurations
- Rigging is compatible to APS
- System integration with LINUS DSP amplifiers
- Maximum SPL 138 dB (peak)

DESCRIPTION
The APS-SUB is an 18" high output subwoofer that provides powerful and extended low frequency response with immense headroom. Low port compression and optimized enclosure design give a tight, accurate bass response that is ideally suited for dance clubs, mobile and installation applications. The integrated rigging system allows quick and easy flying or ground stacking.

STATE-OF-THE-ART DRIVERS
The APS-SUB is equipped with an extremely long excursion 18“ ultra low distortion driver. The strong motor delivers extreme high magnetic flux for increased efficiency. The 4" voice coil ensures ultra linear excursion of 20 mm / pp at consistent magnetic force.

The state-of-the-art carbon-fiber cone ensures maximum stiffness and low moving mass. Three aluminum shorting rings reduce intermodulation distortion, minimizing induction variation whilst reducing thermal compression. This design dramatically reduces the distortion of a typical subwoofer at longer excursion levels, and improves the overall sound quality and performance characteristics of the cabinet.

SYSTEM SOLUTION

The APS-SUB is designed to work exclusively with Coda Audio LINUS amplifiers as an integrated solution for DSP control, amplification, network remote control and diagnostic.
The integrated solution ensures optimal performance and protection.

APPLICATION

Primarily designed as a subwoofer extension for APS, the APS-SUB is also suited for a variety of applications in touring and installations where compact size, high precision, deep bass with directivity control is needed.
Typical applications are dance clubs, theaters, houses of worship and live sound venues.

Type	Compact 18" subwoofer
Application	Small / Medium venues
Frequency response	28 Hz – 150 Hz
Power handling (AES / peak)	1300 W / 5000 W
Sensitivity 1 W / 1 m*	98 dB
Maximum peak**	138 dB
Components	18" ultra low distortion woofers 4" (101.6 mm) voice coil, 1300 W (AES)
Nominal impedance	8 Ohm, +1 / -1
Input connectors	2x Neutrik™ NL4MP
Suspension	Intergrated
Enclosure material	Baltic Birch
Finish	Polyurea coating (water resistant)
Dimensions (WxHxD)	674 x 570 x 596 mm
Net weight	45 kg

* Half-space loading
**Measured with pink noise 6 dB crest factor

ACCESSORIES:

SYSTEM COMPONENTS:

APS-SUB
LINUS DSP-amplifiers