ViRAY

ViRAY

with DDP Dual Diaphragm
Planar-wave-driver Technology

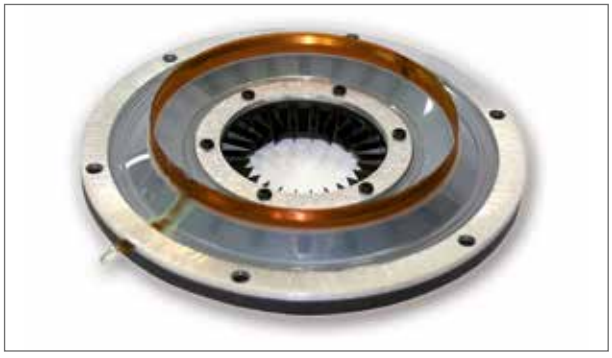
- Unique 8” coaxial mid/high planar wave driver
- Dual 8” neodymium ultra low distortion cone drivers
- ViCOUPLER unites all transducers to perfom as a single source
- High power handling of 600 W
- Variable horizontal coverage of 120° or 80° or 100° asymmetrical (40°+60°)
- Vertical curving 0° to 10° variable in 1° steps
- Superior sound
- Integrated rigging system for flown or ground stacked arrays
- Multiplex enclosure with Polyurea coating for extreme durability and water protection
- Subwoofer extension with the SCV-F
- System integration with LINUS RACKs

System components: LINUS RACKs, SCV-F, SC2-F

Whether it’s for live touring applications or high-end fixed installations, ViRAY has been created to surpass and excite the needs of both user and listener in equal measure.

Introducing “ViRAY” Coda Audio’s new compact 3-way symmetrical line array system with DDP technology.

As with all Coda Audio products, the design concept of a new product always start with the key components. ViRAY is no different. ViRAY incorporates all new DDP (Dual Diaphragm Planar-wave-driver Technology), the purpose-built 8” coaxial mid/high planar wave driver sits at the heart of the system.



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

The larger annular midrange diaphragm covers the frequency range 600 - 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 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.

ViCOUPLER

All ViRAY drivers are loaded to a common ViCOUPLER which combines the energy produced from all transducers to perform as a single source, without phase destruction achieving a coherent and uniform wavefront. In fact the ViCOUPLER determines the horizontal on-axis and off-axis frequency response.

The ViCOUPLER technology integrates 3 main functions:

- Waveguide for the Mid/High Planar-wave-driver
- Large plane screen panel to avoid backwards reflections
- Phase plug for the 8" drivers for optimized loading

The ViCOUPLER unites all elements to form a complete entity with complete balance.

In conventional design a backward sound wave from the mid/high range reflects to the cone onto the low frequency drivers. The interference between the direct radiating and reflected waves produce comb filter response.

The ViCOUPLER ensures that sound is reflected in a coherent manner because the dimension of the reflective surface is large compared to the wavelength.

In fact a ViCOUPLER loaded array performs as a single waveguide mounted in a large, flat baffle (screen) without diffractions. When sound waves from the mid/high range gather onto the flat surface, it generates a coherent sound field providing uniform power response and directivity control over a wide frequency range.

Conventional design

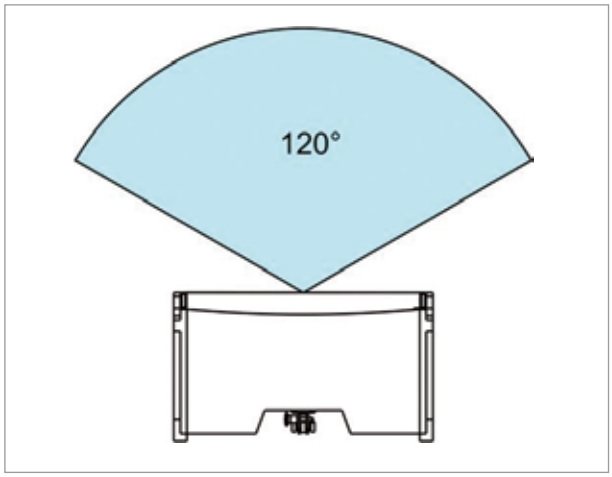
ViRAY with ViCOUPLER

Phase-Plug-Loaded cone drivers

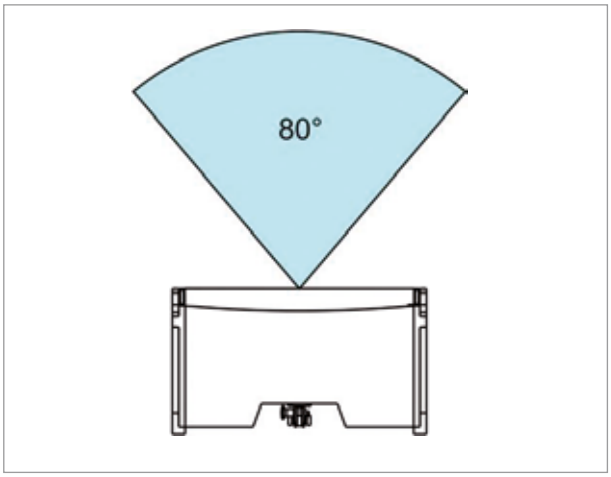
Precision phase plugs are integrated into the ViCOUPLER to ensure acoustically coherent coupling of the low range providing perfectly consistent coverage down to 350Hz. This optimizes the horizontal directivity and maximizes the system efficiency.

Horizontal Dispersion

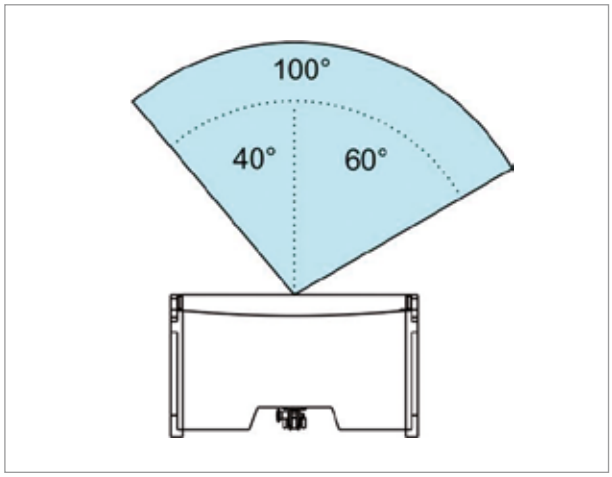
To maximise precise coverage, and therefore maximize application results, user selectable horizontal coverage of 120° / 80° or asymmetrical 100° (60°+ 40°) or (40°+ 60°) are available, allowing for very accurate audience coverage, reduced possibility of reflections, all resulting in outstanding system intelligibility.



120° Horizontal Coverage



80° Horizontal Coverage



100° Horizontal Coverage

ViRAY's vertical coverage is array dependent from 0° to 10° in 1° steps. The system design allows for a vast increase in ground stack configurations as well as in flown arrays. ViRAY frequency response is from 55Hz to 22kHz. For extended Sub response the SCV-F Subwoofer, which utilizes Coda Audio's award winning Sensor Control technology, turns the two elements into one remarkable system. The SCV-F can be flown in curved arrays allowing full system flown applications to be completely coherent in all respects. SCV-F may be used in Omni or Cardioid formats. The ViRAY is designed to work exclusively with dedicated Coda Audio LINUS RACKs as an integrated solution for DSP control, amplification, network remote control and diagnostic. The integrated solution ensures optimal performance and protection.

TECHNICAL SPECIFICATIONS ViRAY

Type:	Compact 3-way Bi-amplified line array module
Application:	Minimal 1, maximal 24 units line array
Frequency response:	55 Hz - 22 kHz (-3 dB)
Power handling:	
Low AES / peak:	600 / 2400 W
Mid AES / peak:	150 / 1300 W
High AES / peak:	80 / 400 W
Sensitivity low 1 W / 1 m:	99 dB
Sensitivity mid/hi 1 W/1m:	112 dB
Max. SPL peak low (+6dB):	133 dB
Max. SPL peak	
mid/high (+6dB):	142 dB
Dispersion horizontal:	120°, 80° or 100° (60° + 40° or 40° + 60°)
Vertical:	Array dependent, 0°-10° in 1°-steps
Components:	
Low frequency:	2x 8" neodymium, water resistant cones
	2" (50.8 mm) voice coil, 300 W (AES) each
Mid/High frequency:	8" coaxial neodymium Planar-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:	600 Hz Active, 6.300 Hz Passive
Input connectors:	2 x Neutrik™ NL4
Nominal impedance:	LF: 16 Ω (1+/1-)
	MF/HF:16 Ω (2+/2-)
Enclosure shape:	Horizontal trapezoid 2x 5°
Enclosure material:	Baltic birch
Finish:	Black polyurea coating (water resistant)
Flying hardware:	Integrated
Dimensions (WxHxD):	674x242x362 mm
Net weight:	25.5 Kg

SYSTEM PERFORMANCE

Array	Horizontal Coverage	Vertical Coverage	Peak Output (+6dB)
1 Enclosure	120° or 80°	12°	133 dB
2 Enclosures	120° or 80°	0 - 10° adjustable	139 dB
4 Enclosures	120° or 80°	0 - 40° adjustable	145 dB
8 Enclosures	120° or 80°	0 - 80° adjustable	151 dB

Application

Designed for medium size touring and installation applications the ViRAY is perfectly suited for theatres, clubs, houses of worship, corporate events and touring. Dedicated hardware allows the ViRAY to be used as a down-fill for AIRLINE LA12,and as a ground stack or in-fill system in its own right.

ACCESSORIES ViRAY

FR-VR	Heavy duty frame for flying or ground stacking ViRAY and SCVF
EXBAR-VR	Extension bar for FR-VR frame
TILT-VR	Tilting legs for ground stacking ViRAY/SCVF on FR-VR
DOW-VR-12	Down fill ViRAY under LA12
LP-VR	Laser plate for FR-VR frame
VGA	Groundstack adapter for ViRAY and SCVF
SH-VR	Shackle for FR-VR
FC-VR	Flight case for 4x ViRAY

RIGGING POSSIBILITIES ViRAY + SCV-F / SC2-F