

Extremely compact & extremely powerful 3-way, self-powered (4000 W Class-D with PFC), DSP integrated coaxial line array element. Dual high power 10" neodymium transducers and 1.4" Exit throat (HF 2" voice coil/ MF 3" voice coil) coaxial neodymium compression driver



Key features

- Extraordinary power-to-size ratio
- Perfect acoustical coupling of individual units to create virtually continuous line source & excellent phase coherence
- Extended bandwidth (60 Hz - 20 KHz)
- Integrated Digital Processor (64 bit / 96 KHz) with FIR linear phase filtering
- Perfect Time Alignment avoiding Multi-Source Interference problems
- Ergonomic design in premium birch plywood & finished in polyurea
- 2.8" IPS display with multifunction joystick control

Applications

- Touring & fixed installations
- Sports stadiums
- Theatres
- Houses of worship
- Concert halls, auditoriums
- Club installations

General description & specifications

The CLS-210 is a high-output extremely compact and extremely powerful 3-way, self-powered, DSP integrated, symmetrical **coaxial** line source element designed for medium sized touring & fixed installations.

It uses two low distortion 10" (3" voice coil) custom speakers for the **low frequencies** with dual gap technologies, FEA optimized neodymium magnet circuit, aluminium demodulating ring and waterproof cone.

For the mid/high frequencies it uses an ultra light weight 1.4" dual diaphragm coaxial compression. The unique voice coil technology employs a light weight copper clad aluminium wire, wound inside and out of the Kapton former to improve heat dissipation, dramatically increasing the acoustic output and reliability of the driver while minimizes the power compression.

The larger annular midrange diaphragm covers the frequency range between 300Hz and 7KHz with a smooth, linear response. The ultra light annular diaphragm for the high frequencies offers exceptional transient response with very high efficiency from 4KHz to 22KHz. With two subsystems in one each driver covers a smaller frequency range for increased power handling, high dynamic and extremely low distortion and delivers excellent phase coherence & perfect time alignment without problems of multi-source interference.

The 4000 W channel Class-D amplifier with PFC (Power Factor Correction) offers exceptional efficiency with maximum system performance whilst significantly lowering power consumption. With Thermal, short-circuit and overload protections the system module delivers superior sonic performance. Coupled together with our

new generation, 64 bit/96KHz processor the system electronics are yet further guaranteed not only the utmost protection but the best performance.

Designed in-house by Lynx Pro Audio engineers our **DSP** offers the most recent advances in digital processing such as FIR filters delivering a linear phase & frequency response. The latest 32 bit/96KHz AD/DA converters make the system one of the most advanced & innovative line arrays on the market resulting in superior sound quality.

A 2.8" IPS display user interface is located on the enclosure's back panel and has multifunction joystick control enabling the user to control, select and/or adjust parameters such as cabinet presets, gain, delay and input EQ (see user manual). Two Ethernet ports enable the system to be controlled with the OCS platform for easier alignment, monitoring and processing of the array and together with the new Rainbow 3D prediction software delivers a complete system design tool.

The enclosure is made from premium grade birch plywood and finished with a polyurea coating for longer durability & weather protection.

Technical Data

Frequency range	60 Hz - 20 KHz
Horizontal coverage	100°
Vertical coverage	Single element 10°
Max SPL / Peak	136 dB / 142 dB
Components	
<ul style="list-style-type: none"> • LF: 	LF: 2 x 10", (3" DUO double layer in/out copper voice coil), Waterproof cone treated on both sides, Neodymium magnet. 1400 W (AES)
<ul style="list-style-type: none"> • MF / HF: 	MF: 3" (76mm) voice coil, 90W (AES) HF: 2" (51 mm) voice coil, 50W (AES)
Power amplifier	4000 W Class-D with switching power supply & PFC
DSP Processing	Internal Lynx Processor DSPB-FL. 96 KHz / 64 bit double-precision, DSP with FIR filter linear phase. High performance 32 bit 96 KHz AD/DA converters
Crossover	Digital: FIR Filter 550 Hz
Control	User control interface with 2.8" IPS display and multifunction joystick controller
Control connections	USB (DSP programming) Dual Ethernet port, Online Control System
Input	BAL/ UNBAL XLR connectors analog input AES3 digital input
Nominal voltage	100 - 240V AC @ 50-60 Hz
Operating voltage	85 - 264V AC
AC Connectors	16A Neutrik powercon true1 TOP with looping output
Finish	Polyurea coating, high grade resistant paint
Material	15 mm Premium birch plywood
Dimensions	300 x 800 x 480 mm (H x W x D)
Weight	33 Kg (72.75lbs)
Intercabinet angle adjustment	0° to 10° in one degree increments

Dimensional Drawing

