

Extremely compact & powerful 3-way, biamplified coaxial line array element. Dual high power 8" neodymium transducers and a unique 8" dual diaphragm coaxial planar wave driver.



Key features

- Extraordinary power-to-size ratio
- Unique 8" dual diaphragm planar wave driver
- Perfect acoustical coupling of individual units to create virtually continuous line source & excellent phase coherence
- Extended bandwidth (55 Hz - 22 KHz)
- Perfect Time Alignment avoiding Multi-Source Interference problems
- Ergonomic design in premium birch plywood & finished in polyurea

Applications

- Touring & fixed installations
- Sports stadiums
- Houses of worship
- Club installations
- Theatres
- Concert halls, auditoriums
- Downfill for CLS-212P

General description & specifications

The CLS-28P is a high-output extremely compact and extremely powerful 3-way biamplified symmetrical **coaxial line source** element designed for medium for medium sized touring & fixed installations.

It uses two low distortion 8" (2.5" DUO copper voice coil) custom speakers for **the low frequencies** with exclusive Malt Cross cooling technology, FEA optimized neodymium magnet circuit, aluminium demodulating ring and waterproof cone.

For the **mid/high frequencies** it uses an ultra light 8" dual diaphragm coaxial planar wave driver. 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 550Hz and 6.3KHz with a smooth, linear response. The ultra light annular diaphragm for the high frequencies offers exceptional transient response with very high efficiency from 6.3KHz 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. Thanks to the mid range's extended low bandwidth (550Hz) the CLS-28P is able to deliver an unmatched 100° horizontal constant directivity coverage pattern.

Depending on the configuration, the system is amplified with the GTX Series, 4-channel, extremely high power level amplifiers with outstanding, high efficiency.

They come equipped with a quality FIR-DSP with high performance 96kHz DSP processing and a large IPS display with a touch panel user interface.

Advanced Audio Power Control Management has been implemented in the design of the GTX series. This enables the user to configure the division of power between the channels via the DSP enabling them to obtain maximum power through just one single channel if desired.

Optional Dante Networking (AES67) and AES3 Digital inputs are also available.

The enclosure is made from **premium grade birch plywood and finished with a polyurea coating for longer durability & weather protection**. It also has a number of dedicated accessories available and the 3 point rigging system which includes 2 front automatically rising plates and 1 centre/rear point enables 16 CLS-28P cabinets to be flown in a single array. The system can also be rigged and angled in retracted position enabling a much easier set-up without the need to lift each cabinet individually.

Technical Data

Components	
• LF:	2 x 8" (2.5" DUO double layer in/out copper voice coil), waterproof cone treated on both sides, neodymium magnet, 1000W (AES)
• MF/HF:	8" dual diaphragm coaxial planar wave driver. - Mid: 3.5" (90 mm) voice coil, 150 W (AES) - High: 1.5" (44.4 mm) voice coil, 80 W (AES)
Frequency range	55 Hz - 22 KHz (-10 dB)
Frequency response	65 Hz - 20 KHz (± 6 dB)
Impedance	Low Section: 8 Ω Mid / High Section: 16 Ω
Sensitivity	LF: 100 dB MF/HF: 122 dB
Max SPL / Peak	LF: 130 dB / 136 dB MF/HF: 135 dB / 143 dB
Power	Bi- Amp LF: 1000W (2000W program, 4000W peak) Bi-Amp MF/ HF: 150W (300W program, 1000W peak)
Horizontal coverage	110° (-10 dB) / 100° (-6 dB)
Vertical coverage	Single element 10°
Crossover	Low/Mid 550 Hz Mid/High 6300 Hz
Connectors	2 x Neutrik Speakon NL4MP
Finish	Black Polyurea coating, high grade resistant paint. other colours (RAL) available
Material	15 mm Premium birch plywood
Dimensions	254.5 x 600 x 480 mm (H x W x D) / with pins 613.5 mm (W)
Weight	25 Kg (55 lbs)

Calculated maximum SPL based on rated peak power and measured sensitivity.

Dimensional Drawing

