

PLA2821

Self-Powered Line Array



The PLA2821 is a true line array with typical -3dB behaviour for each doubling of distance, a very narrow vertical dispersion of $3,75^{\circ} \times 3,75^{\circ}$ gives the system an unsurpassed control over vast distances. The horizontal dispersion is 120° and with the specially designed waveguides controlling and "steering" the sound, a fullrange linear arrayed behavior is achieved over the whole frequency response, not only in the HF wave guide. This gives an astounding stereo image and sound separation, never experienced before in line array systems.

The frequency response is flat and undistorted, with next to no coloring of the sound.

Using only the very best components available ensures the highest possible quality in sound, with extremely low distortion.

The PLA2821 are sold in pairs where one master and one slave are used. The master module holds all amplification and processing, feeding the slave module with 500W of DSP-processed class-d amplification through a 4-way speakon connector.

To achieve a true controlled line source down to approx 200Hz, you need at least 6 units, for 150Hz you need 8-10 units, and for 100Hz you need 12 units (6 pairs)

Features

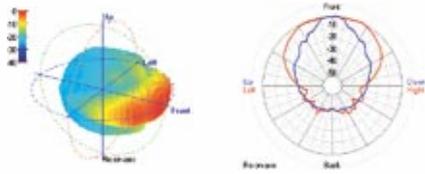
- Compact format.
- 2 x 8" woofers mounted on two separate 120° baffles.
- 2 x 1" driver mounted on a 120° waveguide.
- Self-powered with built-in amplifier and a total of 1000W with on-board DSP processing.
- Controlled dispersion of $H120^{\circ} \times V7,5^{\circ}$.
- Flat frequency response with low distortion and high SPL.
- True line array behaviour with a -3dB SPL.
- Coherent wavefront where the frequency response and frequency reproduction are the same over the dispersion area.
- Sold and used in pairs (master/slave) where the master houses all electronics and amplification.
- Overdimensioned 8 mm. aluminium hardware (each speaker has 3 x 8 mm x 4 points of aluminium thickness).

Applications

- Medium sized line array for use in live applications speech and recorded music such as concerts, festivals, club performances and events.
Either flown or groundstacked, with the smart and easy to use rigging hardware.
- Installed horizontally in small clusters where dispersion are paramount.
- Installed in venues, theatres, churches and other indoor facilities.
- Sidefill, groundstacked on any of our subwoofers prepared for line array stacking.
- Small sized high power PA with 2-4 pcs. mounted on a stand with subwoofer, for use in live application and recorded music, such as bands, DJ's, Events
- Delaysystem / delaytower in larger venues.
- installed 2-4 pcs / cluster vertically in nightclubs, live performance stages, bars and lounges etc. with a very controlled dispersion.



CLF files available for downloading and using in any 3D-CAD program supporting CLF format



Only the best components available have been used, whether it be drivers, woofers or amplifiers & DSP's.



Technical data PLA2821:

Model	PLA2821
Low frequency driver	2 x 8" Neodymium lightweight drivers, mounted on separate 120° baffles.
High frequency driver	2 x 1" - throat exit driver, mounted on a waveguide.
Construction	self-powered, vented cabinet (bi-amped version upon request)
Sensitivity	100 dB@1W/1m.
Nominal impedance	Each component are 16 ohm.
Power handling R.M.S.	400W
Power Handling cont.	800W
Max SPL, open space (calc.)	135 @ 1000W (144 dB 2 x 8 pcs in array)
frequency response +/- 6dB	60Hz - 20kHz
Vertical dispersion -6dB	7,5°
Horizontal dispersion -6dB	120°
Measurements H x W x D mm.	280/215 x 760 x 400
Weight	23 kg.
Recommended crossover in an active system with subwoofers	HP@90Hz, 24-48dB/oct
Recommended pre-programmed DSP processors	PROPHON DSP26, PROPHON DX48, PROPHON DSP48
Applications	- Fixed Installations. - Live performances. - 2-4 pcs stacked/mounted on subwoofers in a PA- system
Recommended subwoofers	HB212, (B6, B18 in a cardioid array)
Accessories	- Flightware for rigging, case,

Extended Technical information, amplifier

Connections	Input: Neutrik XLR female Link out: Neutrik XLR male Power in: Neutrik powercon blue Power out: Neutrik powercon grey
Mains Voltage Range	195 - 250 Vac, 50/60Hz
Max power consumption (1/8 max output)	1,6A - 2,6A
Max output current draw	28A
Efficiency	>85% (typical)
Damping factor	> 500@100Hz, 200@1kHz
Distortion	<0,05% (THD, DIM, SMPTE)
Power	2 x 500W
S/N ratio	<105 dBA (20Hz - 20kHz A weighted)
Frequency response	10Hz - 25kHz (+-3dB)
Input impedance	10 kOhm balanced to ground
Input sensitivity @ 8 ohm	1,12 V / 3,20 dBu
Crosstalk separation	> 70 dB @ 1 kHz
S / N ratio	> 112 dB(A) (20Hz - 20kHz)