



CXA Series **CATALOGUE**

Latest edition

Proudly designed, engineered and
manufactured in SPAIN





CXA Series

The CXA is intended as a flexible solution for both fixed installations and touring where wide coverage is required from as few line array elements as possible.

This line source system can be used as a single element or a combination of a maximum of 4 cabinets in array configuration delivering a 72° coverage in the vertical plane. Our HF Multidriver Waveguide system delivers 100H x 18V precise coverage for a multitude of installations. Thanks to its careful construction it can also be installed for symmetrical HF dispersion.

The CXA Array models are self-powered (Class D) with switching power supply and 1400W of amplification each. They are also controlled by the latest generation of Digital Signal Processing with a DSP integrated in to each cabinet, optimizing all the system components and electronics, providing maximum system efficiency and total protection.



- Class D Powered
- Integrated Digital Processing
- Internal temperature control
- Electronic protections
- FIR linear phase filtering
- Online monitoring available
- Two way active system

High Output, self powered (class D switch mode power supply with PFC), constant curvature line array element.

Consists of a 12" (2.5" voice coil) transducer with special HF Multidriver Waveguide system delivering 100°H x 18°V precise coverage. DSP (FIR technology) controlled with 1400W amplification, 128dB SPL

Made from premium birch plywood and finished with a polyurea coating.

Applications: live events, clubs, houses of worship, theatres, fixed installations and touring.



CXA-12

| | |
|---------------------|--|
| Components | LF: 12", 2.5" voice coil, Malt Cross Cooling System HF: Multidriver system with wave guide, 1.4" aluminium voice coil with titanium diaphragm |
| Frequency Range | 60 Hz - 20 KHz (-10dB) |
| Frequency Response | 70 Hz - 18 KHz (± 3dB) |
| Max. SPL* | 128 dB |
| Coverage | 100° H x 18° V |
| Power | 1400 W Class D with switching power supply & PFC |
| LF Amplifier | 1 x 800 W |
| HF Amplifier | 1 x 600 W |
| Processing | 96 KHz / 64 bit double-precision, DSP with FIR filter linear phase |
| Control | User control interface with 2.8" IPS and multifunction joystick controller |
| Control Connections | Ethernet (OCS) / USB |
| Input | Analog / AES3 (optional) |
| AC Power | 90 – 264V. 50/60 Hz with PFC |
| AC Connections | 16A Neutrik powerCON TRUE1 with looping output |
| Finish | Polyurea coating high grade resistant paint |
| Material | 15mm Premium birch plywood |
| Dimensions | 357 x 632 x 484 mm (H x W x D) |
| Weight | 31 Kg (68 lbs) |

* Calculated based on power rating and measured sensitivity



- Class D Powered
- Integrated Digital Processing
- Internal temperature control
- Electronic protections
- FIR linear phase filtering
- Online monitoring available
- Two way active system

High output, self powered (class D switch mode power supply with PFC), omni-directional subwoofer cabinet.

Consists of a 18" (4" ventilated voice coil) neodymium transducer. DSP controlled with 1400W amplification, 132dB SPL.

Made from premium birch plywood and finished with a polyurea coating.

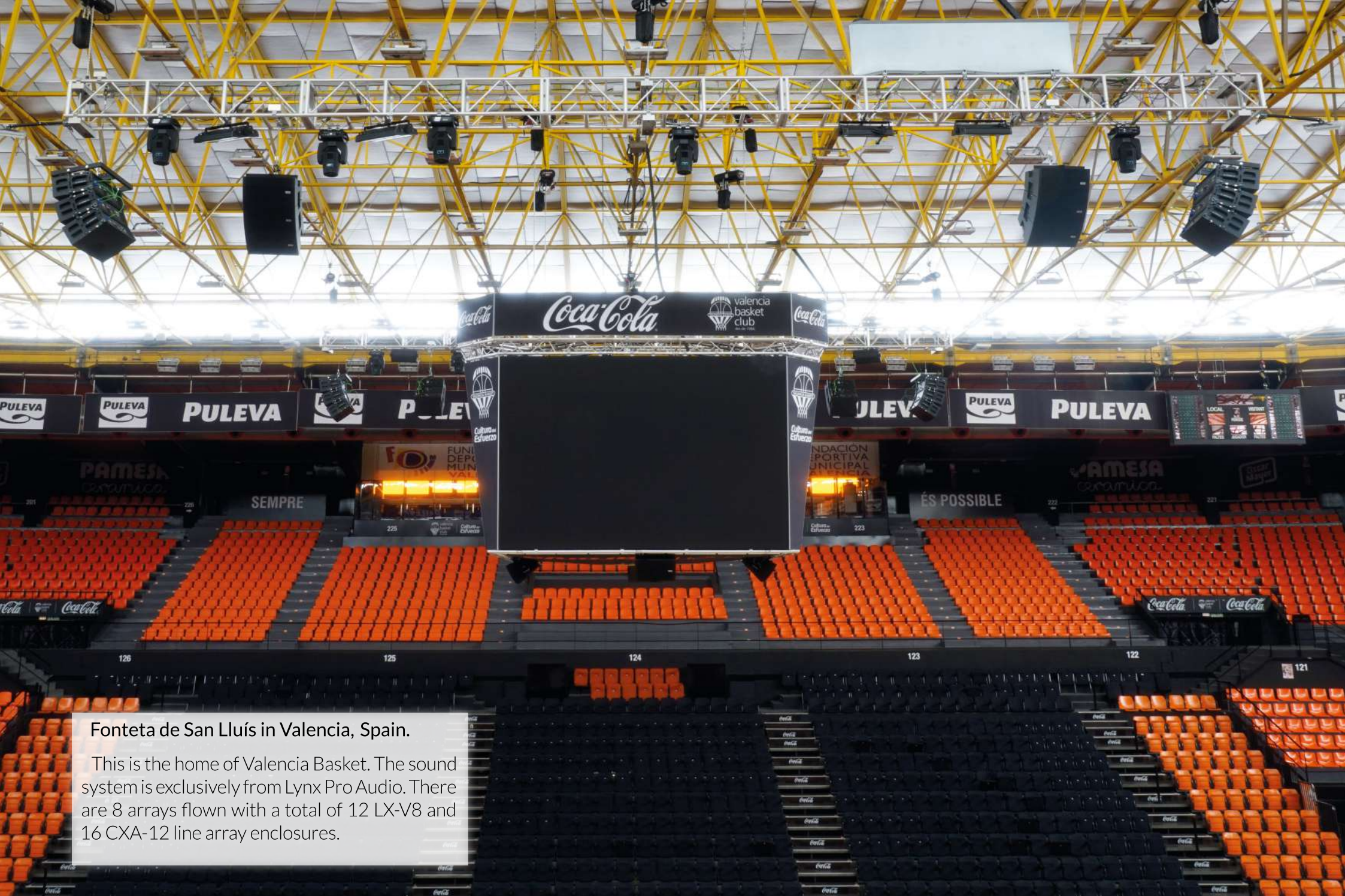
Applications: theatres, concert halls and auditoriums, sport stadiums, large discos and outdoor events.



CXA-18S

| | |
|---------------------|--|
| Components | LF: 18", 4" voice coil, Neodymium magnet assembly |
| Frequency Range | 30 Hz - 140 Hz (-10dB) |
| Frequency Response | 35 Hz - 125 Hz (± 3 dB) |
| Max. SPL* | 132 dB |
| Coverage | Omnidirectional |
| Power | 1400 W Class D with switching power supply & PFC |
| LF Amplifier | 1 x 1400 W |
| Processing | 96 KHz / 64 bit double-precision, DSP with FIR filter linear phase |
| Control | User control interface with 2.8" IPS and multifunction joystick controller |
| Control Connections | Ethernet (OCS) / USB |
| Input | Analog / AES3 (optional) |
| AC Power | 90 – 264V. 50/60 Hz with PFC |
| AC Connections | 16A Neutrik powerCON TRUE1 with looping output |
| Finish | Polyurea coating high grade resistant paint |
| Material | 18mm Premium birch plywood |
| Dimensions | 556 x 632 x 696 mm (H x W x D) |
| Weight | 45 Kg (99 lbs) |

* Calculated based on power rating and measured sensitivity



Fonteta de San Lluís in Valencia, Spain.

This is the home of Valencia Basket. The sound system is exclusively from Lynx Pro Audio. There are 8 arrays flown with a total of 12 LX-V8 and 16 CXA-12 line array enclosures.

Software

Prediction, control, DSP updates, management system...all our softwares are designed in-house and are a fundamental part of the Lynx Pro Audio technology. They are designed by and for sound technicians, with a very intuitive interface easy to use.

Masters of DSP technology and one of the few companies in the world that develops its own digital processing systems. This allows us to control all internal processing, from gain to crossover, dynamics, etc.

Online Control System (OCS)



Control and monitoring software for multiple devices (loudspeakers, amplifiers and processors). Allows control via Ethernet / USB for Lynx Pro Audio systems with integrated DSP.

It controls the powered cabinets in real time and obtain detailed information of cabinet behavior.

ARK Software



The ARK software works via USB or Ethernet (cable or wireless) and is the interface to configure all the parameters of the range of processors ARK-70 and ARK-20 series.

The ARK software has been completely designed at the Lynx Pro Audio laboratory by our own engineers. It allows you to configure every one of the parameters in the processor, being in "Real Time" or "Offline", storing them in the processor via the USB interface or ETHERNET.

Cabinet Updater



Connect the cabinet by USB to your PC. The Cabinet Updater software will automatically detects your cabinet hardware and updates the presets to the latest and optimum configuration available.

Rainbow 3D



Rainbow 3D is an electro-acoustical prediction software for loudspeaker systems, boasting comprehensive high-speed simulation in a three-dimensional environment. With a sophisticated design, Rainbow 3D stands out for its speed, being able to do a simulation in a few seconds.

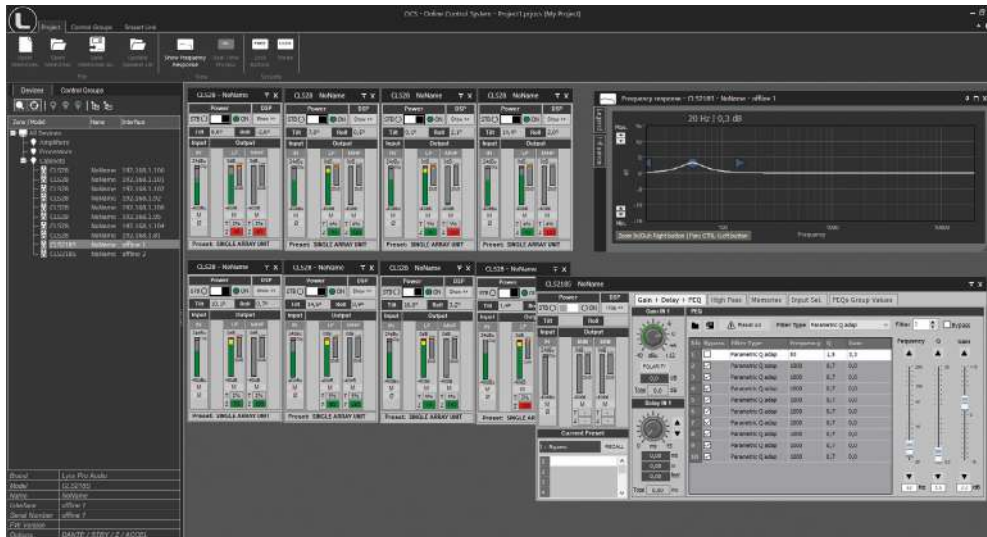
Thanks to this software you will be able to "virtually" determine the acoustical response of one or various cabinets at the same time.

Online Control System (OCS)

OCS is our control software, **working in real time for all our digital processing systems**. It is a user interface enabling the set-up of all digital devices in an installation.

With OCS you can configure / monitor all the parameters of a self-powered Lynx Pro Audio system (input levels, cabinet angles, module temperature, compression levels....), all parameters available in our processors and all settings for our HPX amplifiers, **from the input sensitivity to the digital process for each channel independently**. You can change the preset, gain, mute and polarity, activate the weather compensation and the SOLO mode.

OCS enables configuration from one single software system for all devices connected to an Ethernet network and incorporates direct communication with Smart(R) measurement system. **Through our Smart Link we can connect to any of Smart(R) session connected to the local network**. This allows us to see, in real time, the captured measurement directly in our process window.



Control and monitoring software for multiple devices (loudspeakers, amplifiers and processors). Allows control via Ethernet / USB for Lynx Pro Audio systems with integrated DSP.

• Who is it for?

Users of Self powered DSP incorporated Lynx Pro Audio Cabinets where the user has requested the cabinets to be supplied with the Ethernet Module kit.

• What is it for?

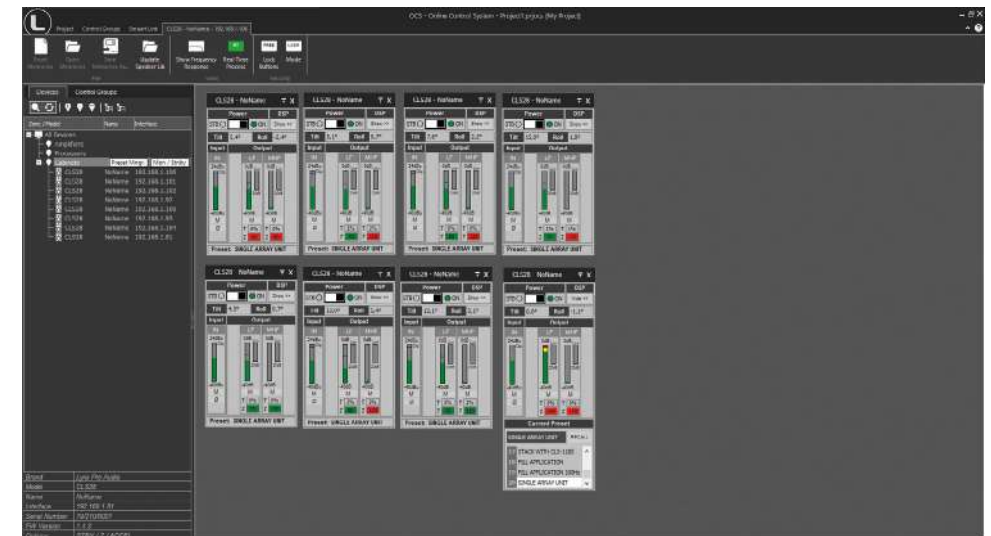
Obtain detailed information of cabinet behaviour and monitor the cabinet/s in real time through the users PC so you can control online a single cabinet or a complete cabinet system from the OCS window. You can apply a Parametric EQ with 6 filters totally configurable, insert a delay up to 90 ms, change the preset, gain, mute, polarity and phase of every cabinet connected. You can also activate the air absorption compensation and select the «SOLO» mode.

• How does it work?

Via Ethernet (cable or wireless). Once installed, the OCS software automatically detects all the cabinets connected to the network and displays them in the OCS window on the users PC.

• What does it show?

As well as displaying the cabinet model and IP address the OCS will be monitoring in real time and the user will be able to view RMS levels, compression and output levels per way, delay, EQ, power module temperature, air absorption compensation and cabinet angulation.



Rainbow 3D Electroacoustical prediction software

Rainbow 3D is an **electro-acoustical prediction software for loudspeaker systems**, boasting comprehensive **high-speed simulation in a three-dimensional environment**. With a sophisticated design, Rainbow 3D stands out for its speed, being able to do a simulation in a few seconds.

Being a technology that has been developed in-house by our engineers, we are able to adapt to the needs of our clients, make improvements when necessary and develop new tools. Rainbow 3D is an ongoing project that will be constantly adding new features.

- **Designed from scratch by professionals**

Despite the existence of the previous Rainbow 2D, this new software has been coded from scratch by our engineers in order to achieve an ultra-fast simulation and to create a visually rich 3D environment. The simulation takes advantage of all cores in the computer using multi-threading techniques for optimised calculation speed.

The program can simulate all Lynx Pro Audio's acoustic enclosures located in a 3D space. New spherical measurements of the loudspeakers have been performed, with up to one degree of accuracy, in the recently built anechoic chamber.

- **Complex-shaped surfaces**

The program can simulate all Lynx Pro Audio's acoustic enclosures located in a 3D space, including the classic side and top views. It can also define multiple listening zones and allows offset positioning and symmetry.

You can create complex-shaped surfaces as listening zones (venues): trapezoidal forms, semicircles, circles, rectangles and other asymmetrical forms. Each corner in a 4-vertex surface is independently definable as straight or round.

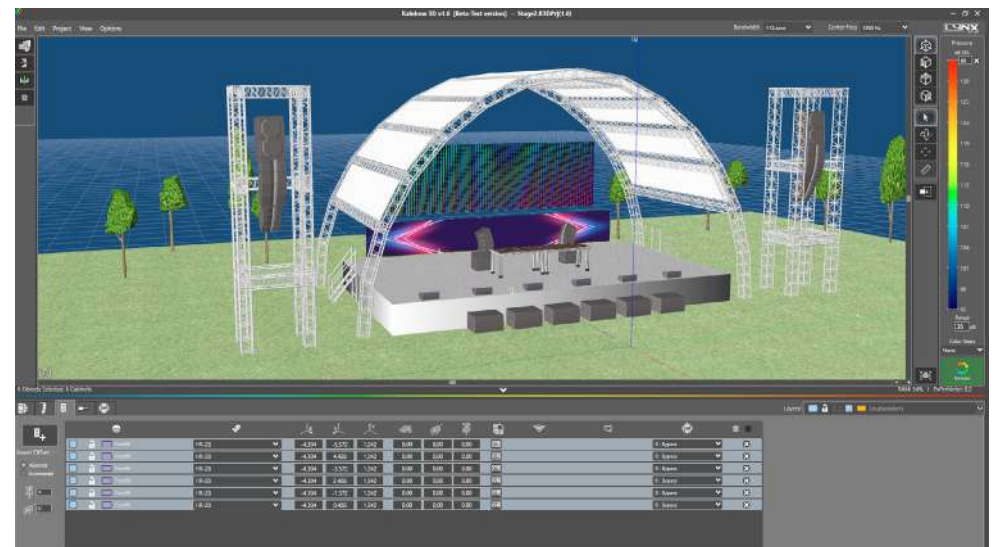
- **Blueprints, textures and ornaments**

Blueprints can be loaded and used as a reference point or template on which reproduce the venue more closely to reality.

Furthermore, you can add textures and ornaments (decorative 3D objects) that you will find in the library to make the project more realistic and visually appealing.

- **Create projects with endless zones**

You can create customized designs using multiple edition and productivity tools: create surfaces, duplicate, apply symmetry on X and Y, show/hide surfaces, change dimensions, change position, change rotation, take screenshots, etc.



- **Unlimited sound sources**

Allows the acoustic simulation for an unlimited number of sound sources and audio systems.

You can place as many systems (subwoofers, line arrays, columns and individual cabinets) as you desire or you can create your own group of customized sound systems.

Line arrays can be placed in stack or flown configuration. Also, you can create clusters from any individual cabinet available in the library.

- **Create your own “Sound Systems”**

You can select different models of cabinets from the library, create a group with the desired configuration and save them as a sound system. In this way, you can create a group of customized sound systems with your own configurations and reuse them in other projects, saving time.

To make this possible, you will need to create a “system” file. This can be integrated upon other projects with the “Load sound system from file” option or you can import it directly into the library to get access whenever you need it with the “Insert sound system” option.

When you create a Sound System, you can add a name, a description and you have the chance to upload a picture.

- **Organisation by layers**

To work in a more organized way you can create multiple layers, with different names and colors to distinguish them. All elements within a layer can be selected and/or moved among them. You can also lock a layer, delete it or disable the speakers for simulation.

- **DSP process over sound sources**

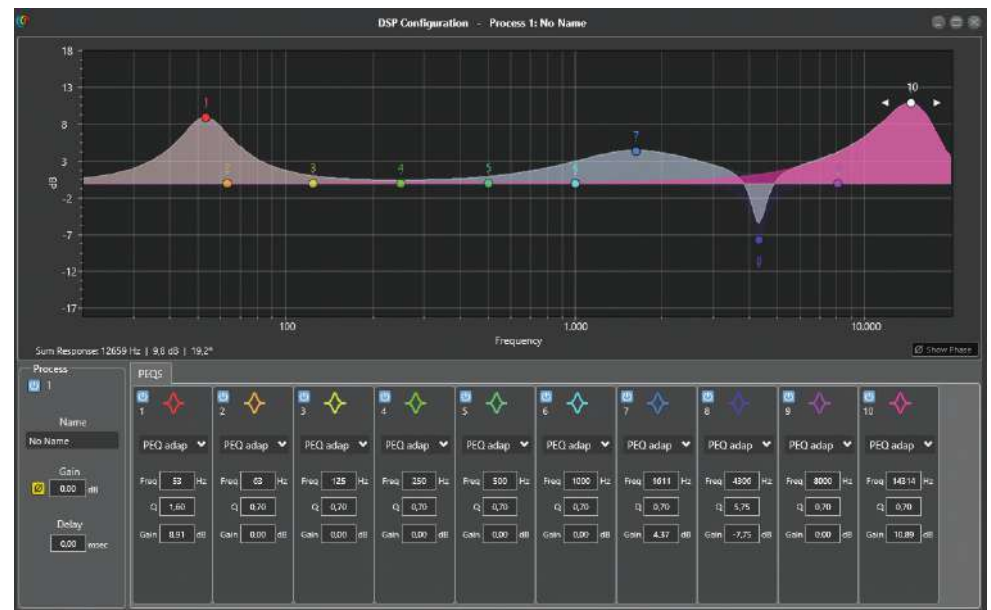
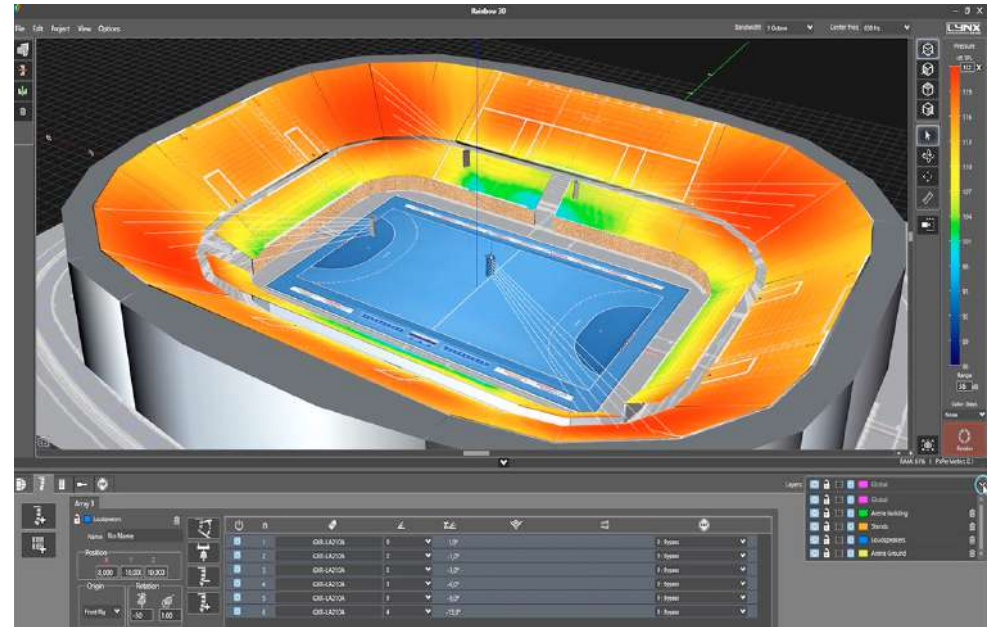
Adding DSP process to sound sources to make corrections and optimize sound, using EQ filters, delay, gain and polarity inversion. In the near future, direct communication with Lynx Pro Audio’s cabinets will be available.

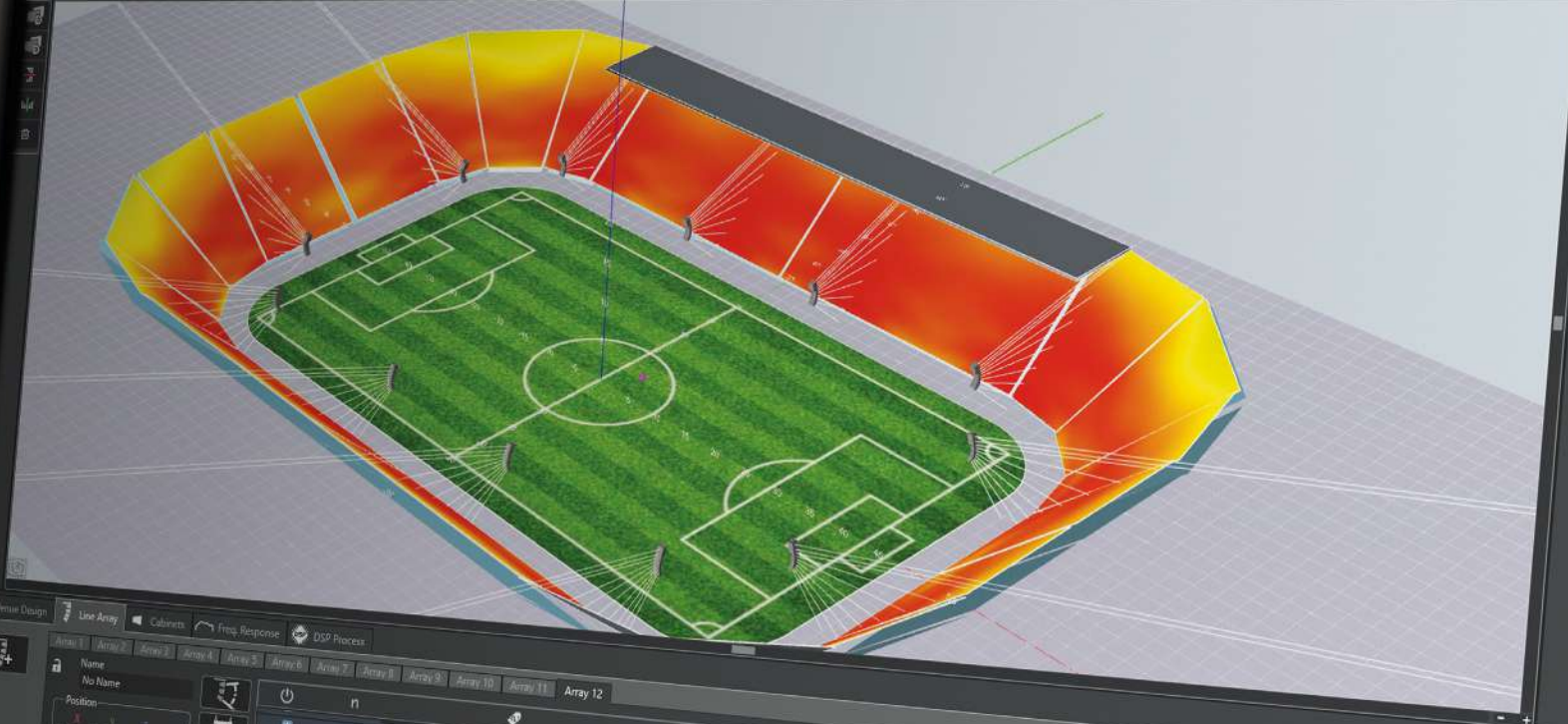
- **Multiple measures and tools**

Likewise, the R&D department is developing multiple measurements and analysis tools for the calculated data. For example, adding virtual microphones that show the frequency response in the points of location indicated.

Among other tools you will find a wizard to set up different line array arrangements, a tool for line array autoplay and a ruler to take measurements (meters) in the 3D scene.

A PDF report can be generated with extensive information that includes 3D views of the project as well as a list of surfaces and loudspeakers with set-up data and EQ.





Venue Design Line Array Cabinets Freq. Response DSP Process

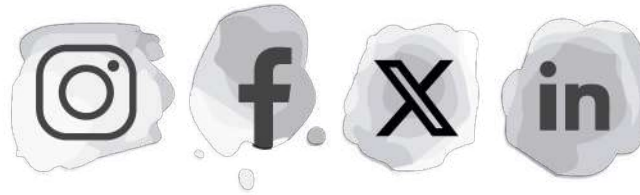
| Array | Name | Position (X, Y, Z) | Rotation (Pitch, Yaw) | Mounting | Flows | n | Angle | Internal DSP | Bypass |
|---------|---------|----------------------|-----------------------|----------|-------|----|--------|-----------------|-----------|
| Array 1 | No Name | -44.64, -14.47, 7.62 | 180, 19.00 | | | 4 | | 1: Internal DSP | 0: Bypass |
| Array 2 | | | | | | 5 | 14.0° | 1: Internal DSP | 0: Bypass |
| Array 3 | | | | | | 6 | 7.0° | 1: Internal DSP | 0: Bypass |
| Array 4 | | | | | | 7 | -3.0° | 1: Internal DSP | 0: Bypass |
| Array 5 | | | | | | 8 | -13.0° | 1: Internal DSP | 0: Bypass |
| Array 6 | | | | | | 9 | -23.0° | 1: Internal DSP | 0: Bypass |
| Array 7 | | | | | | 10 | -33.0° | 1: Internal DSP | 0: Bypass |
| Array 8 | | | | | | 10 | -43.0° | 1: Internal DSP | 0: Bypass |

1 Octave
1000 Hz

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