HR Series **CATALOGUE**
Latest edition

Proudly designed, engineered and manufactured in SPAIN

LYNX pro-Audio

CULTURE OF SOUND

HR Series

The HR Series has been designed to offer the utmost sound quality for installations. The range consists of 10 different two-way, full-range and 4 sub-bass options, all delivering high output whilst retaining exceptional clarity, efficiency and guaranteeing lower distortion whilst delivering superior reliability and sonic performance.

All full range models are either bi-amp or passive selectable. For greater flexibility the 12" and 15" full range cabinets are available in 4 different options depending on the coverage pattern and power required for the installation and for sub-bass reinforcement two different dual 18" are also available.

After considerable testing only the best components have been selected for the HR series. Materials such as hexacone, neodymium, nomex are all employed in our LF/MF drivers to ensure superior performance. The high frequency drivers all use either mylar, titanium or polyimide each with their own unique benefits and qualities whilst our aluminium horns offer improved compression driver cooling and very low distortion at high pressure levels.
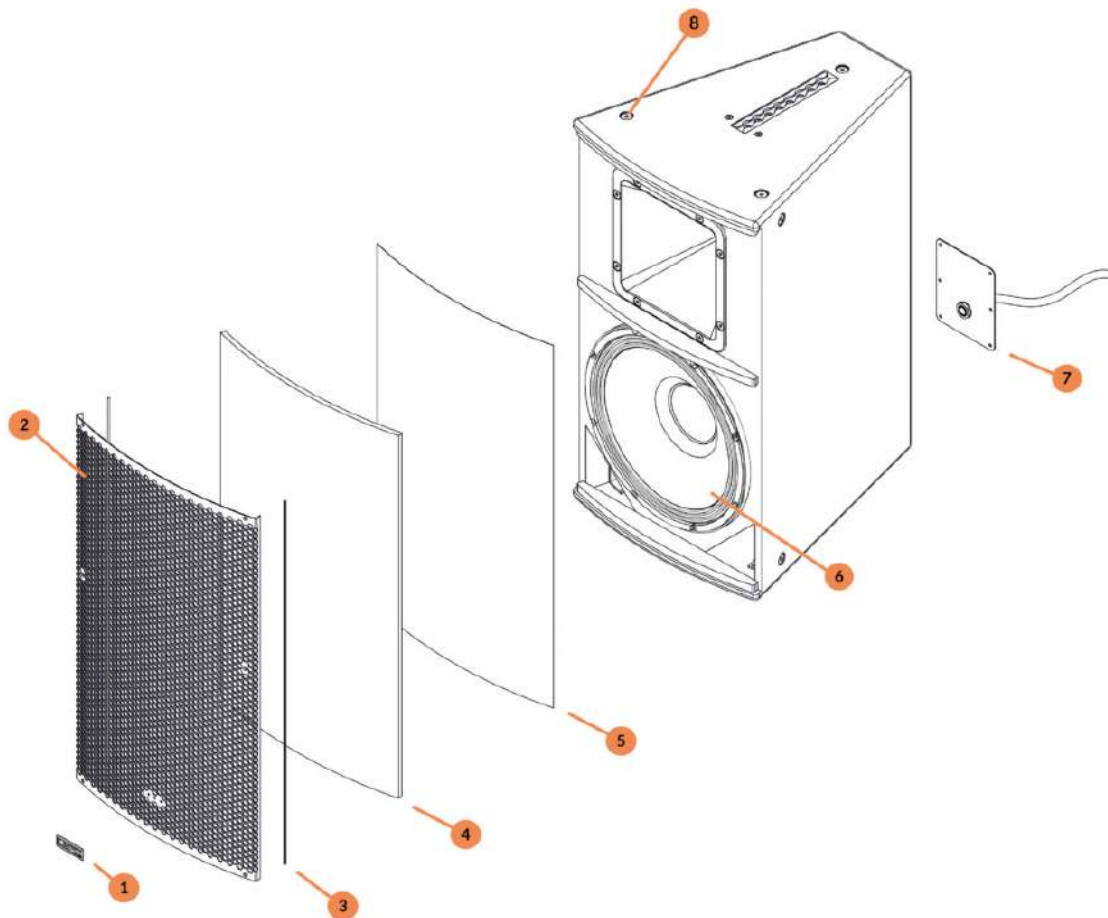
All HR Series cabinets are finished in rugged, premium birch plywood, coated with water-based black paint and protected by front steel grilles all backed with a special dark grey triple layer, acoustical textile which allows greater air flow and reduces heat and humidity.

Weather-resistant option

Our Weather-resistant option speakers are designed to withstand harder weather conditions, where the cabinets are exposed to the elements.

The following cabinets are available as Weather-resistant:

- HR-108
- HR-1564/7 & HR-1596/7
- HR-1264/7 & HR-1296/7
- HR-1564/5 & HR-1596/5
- HR-1564/5 & HR-1596/5

- HR-204
- HR-206
- HR-208
- HR-218/36
- HR-218/20
- HR-18/10

Features:

1. Anodized aluminium logo for durability outdoors.

2. Stainless steel 1 mm 316 L grill. Also available in aluminum with protective layer and micro textured paint.

3. Weatherstrip edging for extreme protection.

4. Acoustex filter: hydrophobic polyester sheet to prevent the penetration of water and external elements produced by extreme weather conditions.

5. 35 ppi Acoustic foam to protect against dust particles

6. Waterproof protected cone on both sides

7. Aluminum back plate with pressure gland for an extra tight connection and easy installation.

8. M10 stainless steel 316 L screws (A4).

· Ultra-compact
· Versatile sound reinforcement
· High performance
· 90° x 90° wide dispersion
· ARK processor optimised preset
· Multiple rigging / mounting options

Outdoor version available

Ultra compact, light and very versatile passive enclosure specially designed for all types of installation projects. Consists of a 6.5" transducer (impedance 16 ohm) and a 1" high frequency Mylar tweeter. It offers 119 dB SPL (400 W program).

It is an excellent solution for large installation projects or basic installations. It has a complete range of accessories to provide an easier installation. It is recommended to apply the high performance preset included in the ARK-20 processor.

This series also has the possibility to be manufactured in our Weather-resistant option, ideal for outdoor situations where the cabinets are exposed to the elements.

Applications: club & bar installations, sound reinforcement, theatres, houses of worship, multi media spaces, public address.

HR-6	
Components	LF: 1 x 6.5" - 2" voice coil HF: 1 x Tweeter 1" – 1.25" aluminium voice coil, Mylar diaphragm
Frequency Range	62 Hz – 20 KHz (-10dB)
Frequency Response	88 Hz – 18 KHz (± 3dB)
Sensitivity	93 dB (1W@1m)
Max. SPL*	116 dB – 122 dB Peak
Coverage	90° H x 90 ° V
Rated Power (AES)	200 W (400 W program, 800 W peak)
Crossover	Passive
Nominal Impedance	16 Ω
Connectors	2 x Neutrik Speakon NL4MP / 4 x Terminal Block 7.62 mm between pins
Finish	Polyurea coating
Material	15mm Premium birch plywood
Dimensions	300 x 236 x 220 mm (H x W x D)
Weight	7.5 Kg (17 lbs)

* Calculated based on power rating and measured sensitivity

· Ultra-compact
· Versatile sound reinforcement
· High performance
· ARK processor optimised preset
· Multiple rigging / mounting options

Weather-resistant option available

Passive ultra compact, lightweight and very versatile enclosure especially designed for all types of installation projects.It consists of a 8" transducer and a 1" high frequency compression driver.

Different models available depending on the wide dispersion: 60° x 40° (HR-108/64)/ 90° x 60° (HR-108/96) / 120° x 40° (HR-108/124).

This series also has the possibility to be manufactured in Weather-resistant option, ideal for outdoor situations where the cabinets are exposed to the elements.

Applications: club & bar installations, sound reinforcement, theatres, houses of worship, multi media spaces, public address.
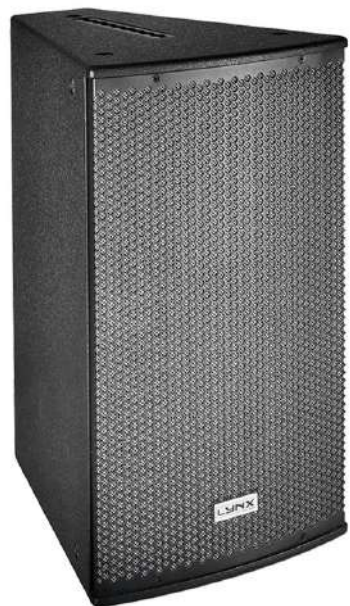
HR-108 (64 / 96 / 124)	
Components	1 x 8" – 2" aluminum voice coil carbon fiber cone1" Exit compression Driver , 1.5" aluminium voice coil, High Temperature Polymer
Frequency Range	60 Hz – 20 KHz (-10dB)
Frequency Response	78 Hz – 20 KHz (± 3dB)
Sensitivity	90 dB (1W@1m)
Max. SPL*	122 dB – 128 dB Peak
Coverage	60° x 40° / 90° x 60° / 120° x 40° rotatable horn
Rated Power (AES)	200 W, 400 W program, 800W peak
Crossover	Passive
Nominal Impedance	8 Ω
Connectors	2 x Neutrik Speakon NL4MP / 4 x Terminal Block 7.62 mm between pins
Finish	Polyurea coating
Material	15mm Premium birch plywood
Dimensions	420 x 279 x 298 mm (H x W x D)
Weight	10 Kg (22 lbs)

* Calculated based on power rating and measured sensitivity

HR Series

- Versatile Sound Reinforcement
- High performance
- Coverage 60° x 40° or 90° x 60°, rotatable horns
- Precise band pass directivity control
- ARK processor optimised preset
- Multiple rigging and mounting options

Weather-resistant option available

HR Series

High performance, ultra-compact, full range, two way bi-amp/passive cabinet.

It consists of a 15" transducer and a 1.4" high frequency compression driver. They offer 2 dispersion options. The model HR-1564/7 provides a narrow dispersion of 60° x 40° (rotatable) and the model HR-1596/7 offers a wide dispersion of 90° x 60° (rotatable).

This series also has the possibility to be manufactured in Weather-resistant option, ideal for outdoor situations where the cabinets are exposed to the elements.

Applications: club & bar installations, sound reinforcement, theatres, houses of worship, conferences, public address.
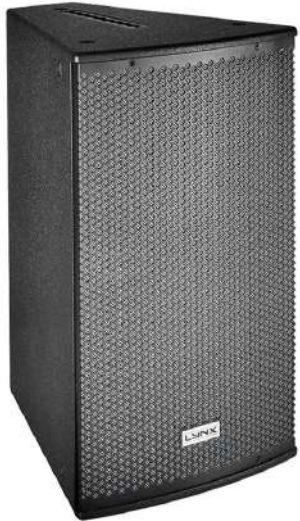
HR-1564/7 & HR-1596/7	
Components	LF: 15". 3.5" aluminium voice coil, waterproof front side cone treatment, neodymium magnet HF: 1.4" Exit compression Driver, 2.5" aluminium voice coil, Titanium diaphragm
Frequency Range	58 Hz - 20 KHz (-10dB)
Frequency Response	64 Hz - 18 KHz (± 3dB)
Sensitivity	Passive Mode: 94 dB (1W@1m)
Max. SPL*	Passive Mode: 123dB - 129dB Peak Bi-Amp LF: 126dB - 132dB Peak Bi-Amp HF: 127dB - 133dB Peak
Coverage	Constant directivity horn (Rotatable) 90° x 60° (HR-1596/7) 60° x 40° (HR-1564/7)
Rated Power (AES)	Passive: 700 W (1400 W prog, 2800 W peak) Bi- Amp LF: 700 W (1400 W prog, 2800 W peak) Bi-Amp HF: 80 W (160 W program, 320W peak)
Crossover	Bi-Amp / Passive (Selectable)
Nominal Impedance	8 Ω Passive / Biamp LF 8 Ω, HF 8 Ω
Connectors	2 x Neutrik Speakon NL4MP
Finish	Polyurea coating high grade resistant paint
Material	15mm Premium birch plywood
Dimensions	790 x 444 x 541 mm (H x W x D)
Weight	32 Kg (70.5 lbs)

* Calculated based on power rating and measured sensitivity

- Versatile Sound Reinforcement
- High performance
- Coverage 60° x 40° or 90° x 60°, rotatable horns
- Precise band pass directivity control
- ARK processor optimised preset
- Multiple rigging and mounting options

Weather-resistant option available

High performance, ultra-compact, full range, two way bi-amp/passive cabinet.

It consists of a 12" transducer and a 1.4" high frequency compression driver. They offer 2 dispersion options. The model HR-1264/7 provides a narrow dispersion of 60° x 40° (rotatable) and the model HR-1296/7 offers a wide dispersion of 90° x 60° rotatable.

This series also has the possibility to be manufactured in Weather-resistant option, ideal for outdoor situations where the cabinets are exposed to the elements.
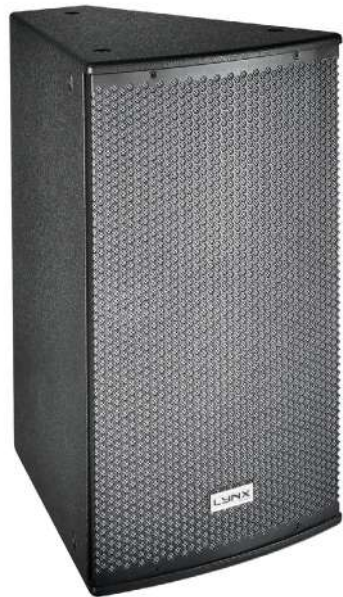
Applications: club & bar installations, sound reinforcement, theatres, houses of worship, conferences, public address.

HR Series

HR-1264/7 & HR-1296/7	
Components	LF: 12", 3.5" Aluminium voice coil, waterproof front side cone treatment, neodymium magnet HF: 1.4" Exit compression Driver, 2.5" aluminium voice coil, Titanium diaphragm
Frequency Range	59 Hz - 20 KHz (-10dB)
Frequency Response	65 Hz - 18 KHz (± 3dB)
Sensitivity	Passive Mode: 94 dB (1W@1m)
Max. SPL*	Passive Mode: 123dB - 129dB Peak Bi-Amp LF: 125dB - 131dB Peak Bi-Amp HF: 127dB - 133dB Peak
Coverage	Constant directivity horn (Rotatable) 90° x 60° (HR-1296/7) 60° x 40° (HR-1264/7)
Rated Power (AES)	Passive mode: 700 W (1400 W program, 2800 W peak) Bi- Amp LF: 700 W (1400 W program, 2800 W peak) Bi-Amp HF: 80 W (160 W program, 320W peak)
Crossover	Bi-Amp / Passive (Selectable)
Nominal Impedance	8 Ω passive / Biamp. LF 8 Ω HF 8 Ω
Connectors	2 x Neutrik Speakon NL4MP
Finish	Polyurea coating high grade resistant paint
Material	15mm Premium birch plywood
Dimensions	705 x 377 x 495 mm (H x W x D)
Weight	26 Kg (57 lbs)

* Calculated based on power rating and measured sensitivity

· Versatile Sound Reinforcement
· High performance
· Coverage 60° x 40° or 90° x 60°, rotatable horns
· Precise band pass directivity control
· ARK processor optimised preset
· Multiple rigging and mounting options

Weather-resistant option available

High performance, ultra-compact, full range, two way bi-amp/passive cabinet.

It consists of a 15" transducer and a 1" high frequency compression driver. They offer 2 dispersion options. The model HR-1564/5 provides a narrow dispersion of 60° x 40° (rotatable) and the model HR-1596/5 offers a wide dispersion of 90° x 60° (rotatable).
This series also has the possibility to be manufactured in Weather-resistant option, ideal for outdoor situations where the cabinets are exposed to the elements.
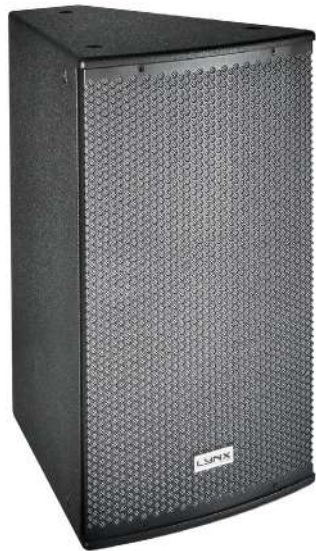
Applications: club & bar installations, sound reinforcement, theatres, houses of worship, conferences, public address.

HR Series

HR-1564/5 & HR-1596/5	
Components	LF: 15", 2.5" voice coil, Malt Cross Cooling System HF: 1" Exit compression Driver, 1.75" aluminium voice coil
Frequency Range	58 Hz - 20 KHz (-10dB)
Frequency Response	63 Hz - 18 KHz (± 3dB)
Sensitivity	Passive Mode: 96 dB (1W@1m)
Max. SPL*	Passive Mode: 123dB - 129dB Peak Bi-Amp LF: 125dB - 131dB Peak Bi-Amp HF: 126dB - 132dB Peak
Coverage	Constant directivity horn (Rotatable) 90° x 60° (HR-1596/5) 60° x 40° (HR-1564/5)
Rated Power (AES)	Passive: 500 W (1000 W prog, 2000 W peak) Bi- Amp LF: 500 W (1000 W prog, 2000 W peak) Bi-Amp HF: 60 W (120 W program, 240W peak)
Crossover	Bi-Amp / Passive (Selectable)
Nominal Impedance	8 Ω Passive / Biamp LF 8 Ω, HF 8 Ω
Connectors	2 x Neutrik Speakon NL4MP
Finish	Polyurea coating high grade resistant paint
Material	15mm Premium birch plywood
Dimensions	790 x 444 x 541 mm (H x W x D)
Weight	30 Kg (66 lbs)

* Calculated based on power rating and measured sensitivity

- Versatile Sound Reinforcement
- High performance
- Coverage 60° x 40° or 90° x 60°, rotatable horns
- Precise band pass directivity control
- ARK processor optimised preset
- Multiple rigging and mounting options

Weather-resistant option available

High performance, ultra-compact, full range, two way bi-amp/passive cabinet.

It consists of a 12" transducer and a 1" high frequency compression driver. They offer 2 dispersion options. The model HR-1264/5 provides a narrow dispersion of 60° x 40° (rotatable) and the model HR-1296/5 offers a wide dispersion of 90° x 60° rotatable.

This series also has the possibility to be manufactured in Weather-resistant option, ideal for outdoor situations where the cabinets are exposed to the elements.

Applications: club & bar installations, sound reinforcement, theatres, houses of worship, conferences, public address..

HR-1264/5 & HR-1296/5	
Components	LF: 12", 2.5" voice coil, Malt Cross Cooling System HF: 1" Exit compression Driver, 1.75" aluminium voice coil
Frequency Range	60 Hz - 20 KHz (-10dB)
Frequency Response	65 Hz - 18 KHz (± 3dB)
Sensitivity	Passive Mode: 94 dB (1W@1m)
Max. SPL*	Passive Mode: 121dB - 127dB Peak Bi-Amp LF: 124dB - 130dB Peak Bi-Amp HF: 126dB - 132dB Peak
Coverage	Constant directivity horn (Rotatable) 90° x 60° (HR-1296/5) 60° x 40° (HR-1264/5)
Rated Power (AES)	Passive mode: 500 W (1000 W program, 2000 W peak) Bi- Amp LF: 500 W (1000 W program, 2000 W peak) Bi-Amp HF: 60 W (120 W program, 240W peak)
Crossover	Bi-Amp / Passive (Selectable)
Nominal Impedance	8 Ω passive / Biamp. LF 8 Ω HF 8 Ω
Connectors	2 x Neutrik Speakon NL4MP
Finish	Polyurea coating high grade resistant paint
Material	15mm Premium birch plywood
Dimensions	705 x 377 x 495 mm (H x W x D)
Weight	25 Kg (55 lbs)

* Calculated based on power rating and measured sensitivity

HR Series

HR Series

· Ultra-compact light weight
· Versatile sound reinforcement
· High performance
· ARK processor optimised preset
· Multiple rigging / mounting options

Weather-resistant option available

The HR-204 enclosure is a high-performance passive full range, with an excellent power-size ratio.It consists of a dual 4"transducer with a 1" tweeter. It offers 121 dB SPL (400 W program).

Made with premium birch plywood and finished in polyurea coating.

This series also has the possibility to be manufactured in Weather-resistant option, ideal for outdoor situations where the cabinets are exposed to the elements.

Applications: club & bar installations, sound reinforcement, theatres, houses of worship, conferences, public address.

HR-204	
Components	2 x 4!, 1.3" voice coil 1 x 1" tweeter
Frequency Range	70 Hz - 20 KHz (-10 dB)
Frequency Response	80 Hz - 20 KHz (± 3 dB)
Sensitivity	95 dB
Max. SPL*	118 dB - 124 dB peak
Coverage	60 ° H x 60° V
Power	200 W AES, 400 W program, 800 W peak
Nominal Impedance	16 Ω
Connectors	2 x Neutrik Speakon NL4MP
Finish	Polyurea coating high grade resistant paint
Material	9 mm premium birch plywood
Dimensions	370 x 157 x 142 mm (H x W x D)
Weight	3.3 Kg (7.27 lbs)

* Calculated based on power rating and measured sensitivity

· Ultra-compact light weight
· Versatile sound reinforcement
· High performance
· ARK processor optimised preset
· Multiple rigging / mounting options

Weather-resistant option available

High performance, ultra-compact, full range, two way bi-amp/ passive cabinet. It offers a wide dispersion of 60° x 40° / 90° x 60° / 120° x 40° and 122dB SPL (800W program).

The HR-206 enclosure is a high-performance passive full range, with an excellent power-size ratio.It consists of two 6.5"transducers (at 8ohm impedance) and a 1" high frequency compression driver.

Different models available depending on the wide dispersion: 60° x 40° (HR-206/64)/ 90° x 60° (HR-206/96) / 120° x 40° (HR-206/124).

This series also has the possibility to be manufactured in Weather-resistant option, ideal for outdoor situations where the cabinets are exposed to the elements.

Applications: club & bar installations, sound reinforcement, theatres, houses of worship, conferences, public address.
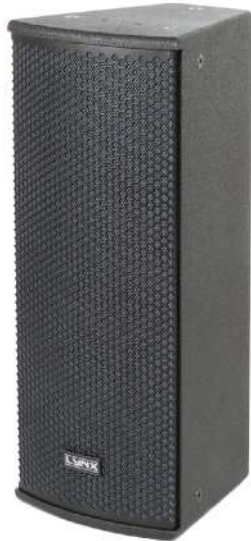
HR-206 (64/96/124)	
Components	LF: 2 x 6.5", 2" voice coil 1" Exit compression Driver , 1.5" aluminium voice coil, High Temperature Polymer
Frequency Range	72 Hz - 20 KHz (-10dB)
Frequency Response	78 Hz – 20 KHz (± 3dB)
Sensitivity	Passive Mode: 96 dB (1W@1m)
Max. SPL*	Passive Mode: 117 dB – 122 dB Peak Bi-Amp LF: 119 dB – 125 dB Peak Bi-Amp HF: 131.5 dB – 137.5 dB Peak
Coverage	60° x 40° / 90° x 60° / 120° x 40° rotatable horn
Rated Power (AES)	Passive mode: 400 W (800 W program, 1600 W peak) Bi- Amp LF: 400 W (800 W program, 1600 W peak) Bi-Amp HF: 70 W (140 W program, 280W peak)
Crossover	Bi-Amp / Passive (Selectable)
Nominal Impedance	8 Ω - also available in 4 Ω
Connectors	2 x Neutrik Speakon NL4MP
Finish	Polyurea coating high grade resistant paint
Material	15mm Premium birch plywood
Dimensions	249 x 568 x 252 mm (H x W x D)
Weight	15 Kg (33 lbs)

* Calculated based on power rating and measured sensitivity

HR Series

HR-208 (64 / 96 / 124)

HR Series

· Ultra-compact light weight
· Versatile sound reinforcement
· High performance
· ARK processor optimised preset
· Multiple rigging / mounting options

Weather-resistant option available

The HR-208 enclosure is a high-performance passive full range, with an excellent power-size ratio. It consists of two 8" carbon fiber cone transducers and a 1" high frequency compression driver.

Different models available depending on the wide dispersion: 60° x 40° (HR-208/64) / 90° x 60° (HR-208/96) / 120° x 40° (HR-208/124).

This series also has the possibility to be manufactured in Weather-resistant option, ideal for outdoor situations where the cabinets are exposed to the elements.

Applications: club & bar installations, sound reinforcement, theatres, houses of worship, conferences, public address.

HR-208 (64 / 96 / 124)	
Components	LF: 2 x 8", 2" aluminium voice coil, carbon fiber cone HF: 1" Exit compression Driver , 1.5" aluminium voice coil, High Temperature Polymer
Frequency Range	54 Hz - 20 KHz (-10dB)
Frequency Response	60 Hz – 20 KHz (± 3dB)
Sensitivity	Passive Mode: 96 dB (1W@1m)
Max. SPL*	Passive Mode: 120 dB – 126 dB Peak Bi-Amp LF: 120 dB – 126 dB Peak Bi-Amp HF: 131.5 dB – 137.5 dB Peak
Coverage	60° x 40° / 90° x 60° / 120° x 40° rotatable horn
Rated Power (AES)	Passive mode: 400 W (800 W program, 1600 W peak) Bi- Amp LF: 400 W (800 W program, 1600 W peak) Bi-Amp HF: 70 W (140 W program, 280W peak)
Crossover	Bi-Amp / Passive (Selectable)
Nominal Impedance	4 Ω Passive / Biamp LF 4 Ω, HF 8 Ω
Connectors	2 x Neutrik Speakon NL4MP
Finish	Polyurea coating high grade resistant paint
Material	15mm Premium birch plywood
Dimensions	666 x 279.5 x 298 mm (H x W x D)
Weight	17 Kg (37 lbs)

* Calculated based on power rating and measured sensitivity

HR-218/36

- Incredible size to power ratio
- Versatile Sound reinforcement
- High performance 3600 W
- ARK processor optimised preset

Weather-resistant option available

HR-218/36	
Components	2 x 18", 4" tetracoil dual voice coil
Frequency Range	29 Hz - 200 Hz (-10dB)
Frequency Response	34 Hz - 200 Hz (± 3dB)
Sensitivity	103 dB (1W@1m) π
Max. SPL*	139 dB / 145 dB Peak
Coverage	Omnidirectional
Rated Power (AES)	3600 W (7200 W program, 1400 W peak)
Crossover	Active
Nominal Impedance	4 Ω
Connectors	2 x Neutrik Speakon NL4MP
Finish	Polyurea coating high grade resistant paint
Material	18mm Premium birch plywood
Dimensions	585 x 1080 x 781 mm (H x W x D)
Weight	82 Kg (180 lbs)

* Calculated based on power rating and measured sensitivity

HR-218/20

- Incredible size to power ratio
- Versatile Sound reinforcement
- High performance 2000 W
- ARK processor optimised preset

Weather-resistant option available

HR-218/20	
Components	2 x 18", 3" copper voice coil
Frequency Range	40 Hz - 200 Hz (-10dB)
Frequency Response	46 Hz - 200 Hz (± 3dB)
Sensitivity	105 dB (1W@1m) π
Max. SPL*	136 dB - 142 dB Peak
Coverage	Omnidirectional
Rated Power (AES)	2000 W (4000 W program, 8000 W peak)
Crossover	Active
Nominal Impedance	4 Ω
Connectors	2 x Neutrik Speakon NL4MP
Finish	Polyurea coating high grade resistant paint
Material	18mm Premium birch plywood
Dimensions	585 x 1080 x 624 mm (H x W x D)
Weight	68 Kg (150 lbs)

* Calculated based on power rating and measured sensitivity

HR-215S

· Ultra compact triple band-pass
· Very high performance 2000 W
· Versatile sound reinforcement
· ARK processor optimised preset

HR-215S	
Components	LF 2 x 15" transducers
Frequency Range	30 Hz – 160 Hz (-10dB)
Frequency Response	35 Hz - 150 Hz (± 3dB)
Sensitivity	100 dB (1W@1m) π
Max. SPL*	133 dB / 139 dB Peak
Coverage	Quasi Omnidirectional
Rated Power (AES)	2000 W (4000 W program, 8000 W peak)
Crossover	Active
Nominal Impedance	4 Ω
Connectors	2 x Neutrik Speakon NL4MP
Finish	Polyurea coating high grade resistant paint
Material	18mm Premium birch plywood
Dimensions	644 x 463 x 600 mm (H x W x D)
Weight	59 kg (130 lbs)

* Calculated based on power rating and measured sensitivity

HR-18/10

· Incredible size to power ratio
· Versatile Sound reinforcement
· High performance 2000 W progam
· ARK processor optimised preset

Weather-resistant option available

HR-18/10	
Components	1 x 18", 3" copper voice coil
Frequency Range	40 Hz - 200 Hz (-10dB)
Frequency Response	46 Hz - 200 Hz (± 3dB)
Sensitivity	101 dB (1W@1m) π
Max. SPL*	129 dB - 135 dB Peak
Coverage	Omnidirectional
Rated Power (AES)	1000 W (2000 W program, 4000 W peak)
Crossover	Active
Nominal Impedance	8 Ω
Connectors	2 x Neutrik Speakon NL4MP
Finish	Polyurea coating high grade resistant paint
Material	18mm Premium birch plywood
Dimensions	511 x 505 x 681 mm (H x W x D)
Weight	32 kg (70.5 lbs)

* Calculated based on power rating and measured sensitivity

HR Series

Oh My Club in Madrid, Spain

Situated in the financial district of Madrid with a 1.500m² room that evolves from a restaurant to a nightclub during the night. It's the new trendy spot among celebrities. Installed with HR-28, HR-1264/7 and HR-218/36 cabinets.

OH
MY
CLUB

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.

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.

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.

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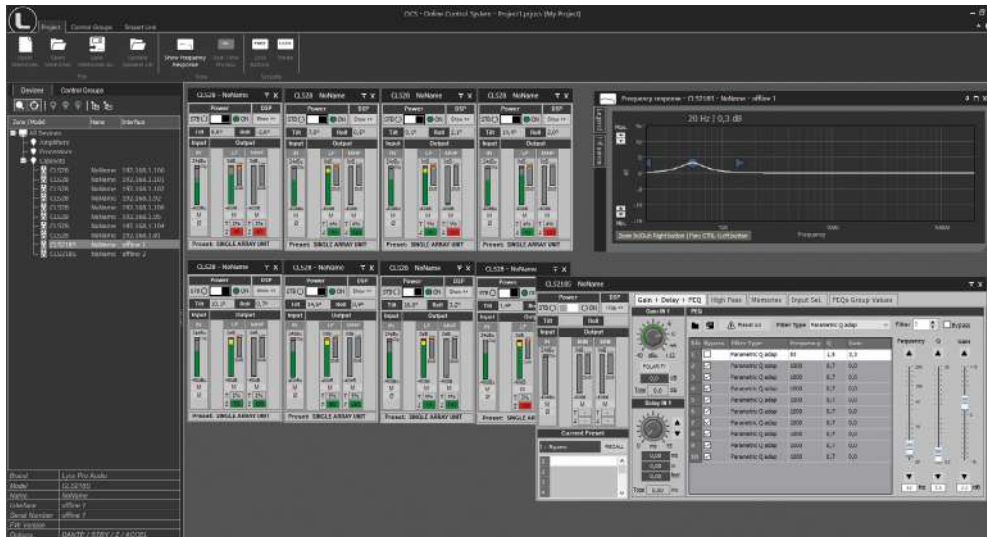
Thanks to this software you will be able to "virtually" determine the acoustical response of one or various cabinets at the same time.

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 Smaart(R) measurement system. T**hrough our Smaart Link we can connect to any of Smaart(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.
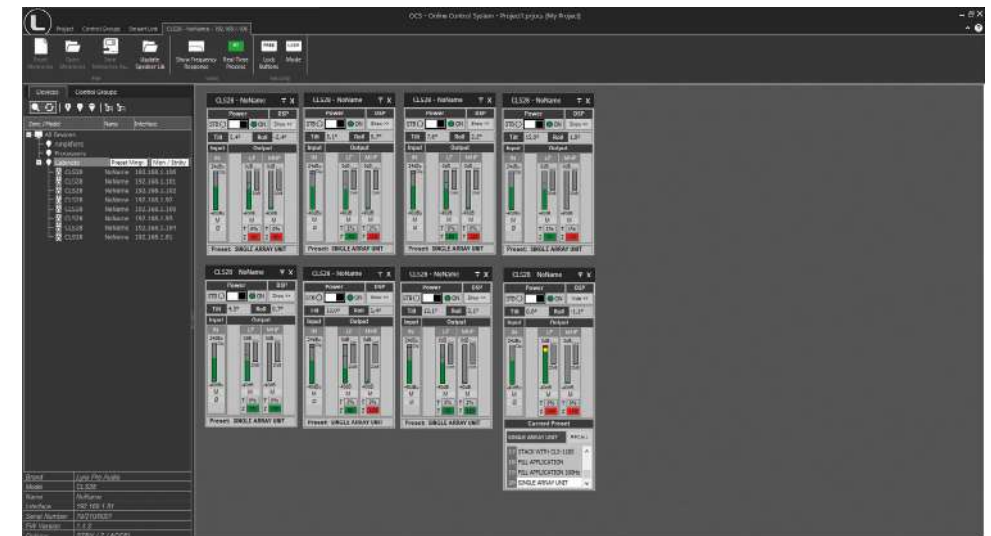
• **What is it for?**
Obtain detailed information of cabinet behaviour and monitor the cabinet/s in real time through the users PC so you can control online a single cabinet or a complete cabinet system from the OCS window. You can apply a Parametric EQ with 6 filters totally configurable, insert a delay 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.
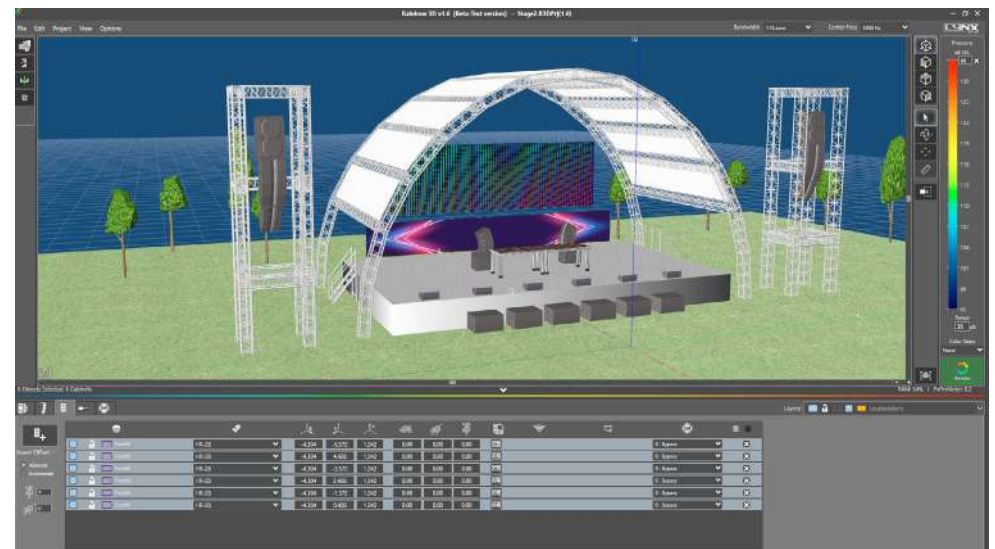
• Blueprints, textures and ornaments

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.
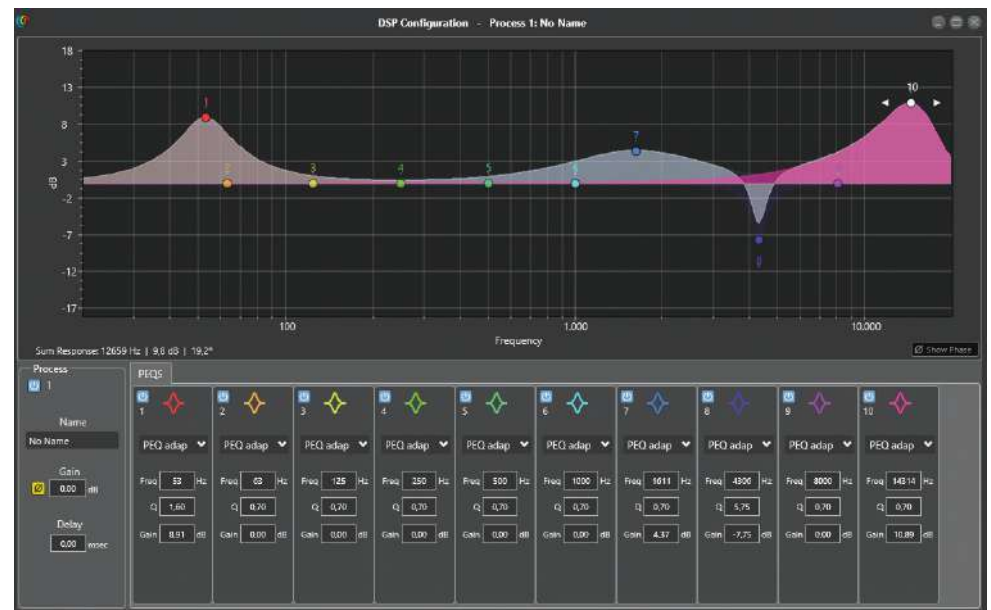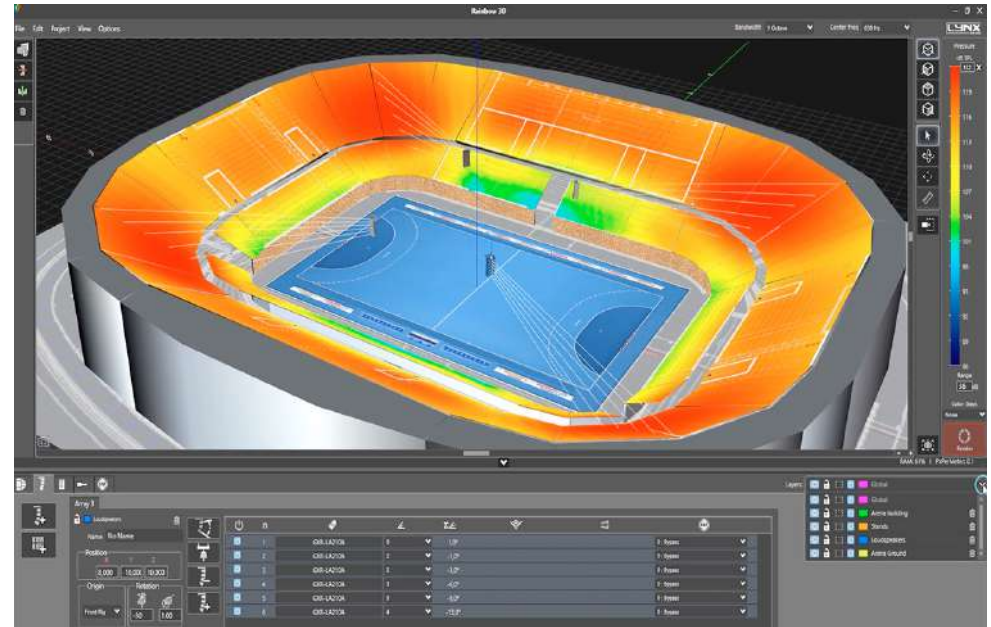
• DSP process over sound sources

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.
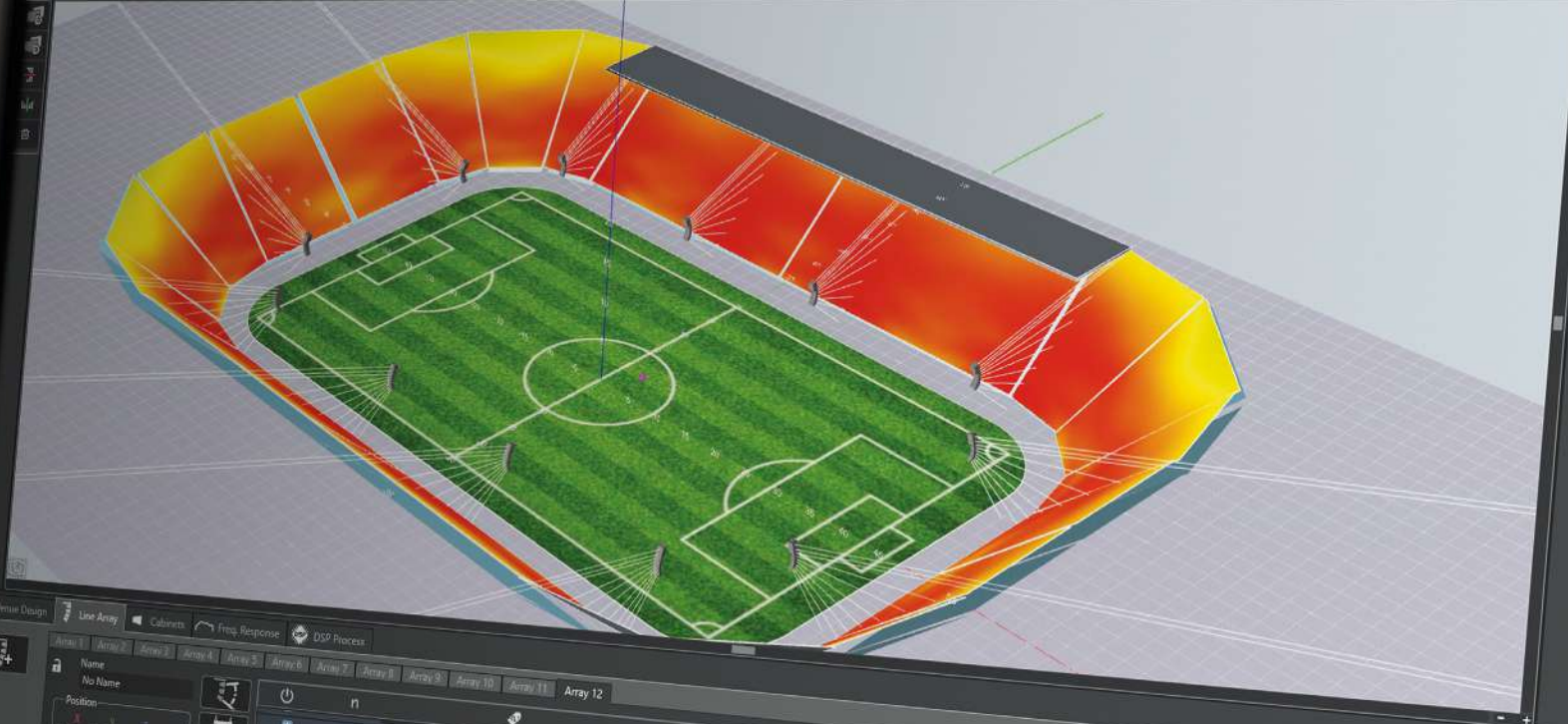
• Multiple measures and tools

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 arragements, a tool for line array autosplay 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.

Rainbow 3D v0.8
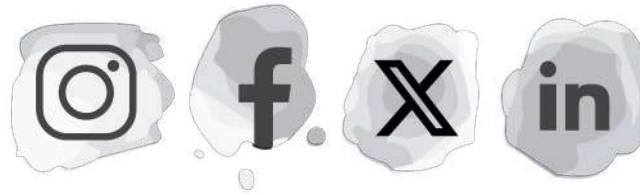
File   Edit   Project   View   Options

Pressure
dB SPL
127 ✕
124
121
118
115
112
109
106
103
100
97
Range
30 dB
Color Steps
None

Venue Design   Line Array   Cabinets   Freq. Response   DSP Process

Array 1 Array 2 Array 3 Array 4 Array 5 Array 6 Array 7 Array 8 Array 9 Array 10 Array 11 Array 12

Name
No Name

Position
X   Y   Z
-44.64   -14.47   7.62

Rotation
180   19.00

Mounting   Flown

	n					
4	GXR-LA10A					
5	GXR-LA10A	5				
6	GXR-LA10A	7	14,0°	1 : Internal DSP		
7	GXR-LA10A	10	7,0°	1 : Internal DSP	0 : Bypass	
8	GXR-LA10A	10	-3,0°	1 : Internal DSP	0 : Bypass	
9	GXR-LA10A	10	-13,0°	1 : Internal DSP	0 : Bypass	
10	GXR-LA10A	10	-23,0°	1 : Internal DSP	0 : Bypass	
		10	-33,0°	1 : Internal DSP	0 : Bypass	
			-43,0°	1 : Internal DSP	0 : Bypass	
					0 : Bypass	

1 Octave

1000 Hz

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