



CLS SERIES **CATALOGUE**

Latest edition

Proudly designed, engineered and
manufactured in SPAIN



CULTURE OF SOUND

OUR TECHNOLOGY

These are the technological features of our cabinets that you will find on each product card:



DIGITAL PROCESSING

Latest generation 24bit/96Khz digital processor which optimizes the system components.

It includes 2 channel processing electronics with functions for phase correction, driver protection, gain control, equalization, classic crossover and linear phase filtering.



FIR POWERED

In-house engineered FIR filter algorithms allow Lynx systems to deliver outstanding sound quality and phase compatibility within all the DSP powered product range whilst maintaining very low latency.



AES / EBU

For self-powered Lynx Pro Audio cabinets that have this option, enabling digital audio input signal via AES / EBU protocol, accepting signals up to 24 bits and 192 kHz whilst with the software being able to choose if you want to use the input L, R or L + R.



POWER FACTOR CORRECTION

PFC is a measure of how efficiently the load current is being converted into a more useful output current. With PFC the power supply regulates itself when AC mains change, so the amp power output will not change with mains swinging.

This system is also very environmentally friendly with a reduction of approximately 40% of current draw. It transforms the power consumed in to "useful power" producing less hum and distortion.



NEODYMIUM

Lynx Pro Audio cabinets that use neodymium magnet group components benefit from special characteristics such as improved driver performance and of course the saving in overall system weight.



ATMOSPHERIC

Air absorption compensation is an algorithm that compensates for the loss of pressure caused by weather conditions and the distance to the listener's ear from the sound system.

By introducing three parameters (temperature, relative humidity and distance) the algorithm calculates the losses and compensates for this loss so they are not apparent in the listening zone.



DIGITAL INCLINOMETER

Automatic function to calculate cabinet splay angles. The inclinometer data can be viewed and controlled from the cabinet LCD display either manually or automatically.

The inclinometer automatically communicates with the DSP and modifies the equalization algorithms. According to the splay angle of the inclinometer the DSP compensates for atmospheric loss.

The result is a more efficient performance and a flat response, even at long distances.



IMPORT DATA

This feature of our control software allows us to add the electro-acoustic response of the system we want to adjust to our processing chain, enabling us to see the total system response and not just the electrical one.



FLOAT POINT OPERATIONS IN DOUBLE PRECISION

The DSP processing works with double precision, achieving an internal resolution of 56 bits or 64 bits, one of the largest resolutions available on the market today.

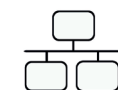
This enables the use of high precision filters with extremely low distortion delivering unbeatable sound clarity and quality.



AMPLIFICATION

The Class D amplifier is characterized by high efficiency (low loss of energy), which results in smaller heat sinks and much smaller total power consumed by reducing the weight and size of the amplifier.

Class D amplifiers achieve about 80% higher efficiency than other amplifiers, whose efficiency is approximately 45%. There are significant advantages, the lower dissipation produces less heat and saves circuit board space.



ETHERNET

This option enables you to connect various devices in a standard Ethernet network and control them remotely through our OCS 'Online Control Software'.



ONLINE CONTROL SYSTEM

OCS is a software to control each cabinet in real time (via Ethernet or pc). It obtains detailed information of the cabinet behaviour: RMS levels, Input clip, compression levels, power module temperature, air absorption compensation and cabinet angulation.



CABINET UPDATER

This software enables you to update your cabinets with the latest presets and firmware. Enclosures are connected via Internet to our servers and automatically detects any updates that might have been made for them. This ensures the end user always has all the improvements developed by our R & D department available for their system.



RAINBOW 3D

Based on polar response measurements, taken meticulously with a 360° sphere in a 3D environment.

The Rainbow 3D software calculates the response from multiple sound sources in a 3D space. In addition, the user can optimize the response using our FIR filtering technology.



New product!

CLS Series

The CLS (Coaxial Line Source) Series is our newest scalable line array solution.

There are two full range cabinets available, CLS-212 & CLS-28 and three sub-bass options; CLS-121S, CLS-218S and CLS-118S all designed to offer incredible output in the most compact format possible.

Extreme care has been taken to select and customize the most advanced components on the market, including coaxial Mid/high drivers together with full electronic synergy through the coupling of the system amplification & integrated DSP technology.

Total system control is also achieved through our 3D prediction software (Rainbow 3D) working together with our remote system management platform (OCS). These cutting edge softwares together with the CLS technology provides the most optimum and precise listening experience to every ear in the audience.

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

CLS-28

Technical Data



- 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 (65 Hz – 22 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

Extremely compact & powerful 3-way, self-powered, DSP integrated coaxial line array element.

It uses Dual high power 8" custom, neodymium transducers for the low frequencies and a unique 8" dual diaphragm coaxial planar wave driver for the mid/high frequencies.

Each cabinet is powered by a 2800W 2 channel class D amplifier with PFC and includes a 32 bit/96Khz integrated DSP

Manufactured from premium grade birch plywood and with a polyurea finish the system can be rigged & assembled in retracted position enabling a much easier set up without the need to lift each cabinet individually.

Applications: touring & fixed installations, sports stadiums, theatres, houses of worship, concert halls, auditoriums and club installations. Downfill for CLS-212.



CLS-28

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). 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	65 Hz - 22 KHz (- 6 dB)
Horizontal coverage	100°
Vertical coverage	Single element 10°
Max. SPL	135 dB / 141 dB
Power amplifier	2800W Class D with switching power supply & PFC LF amplifier: 1 x 1400W MF/ HF amplifier: 1 x 1400W
DSP	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 120dB
Crossover	Digital: FIR filter 550Hz / Passive: 6.3 KHz
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 AES/EBU digital input optional
Nominal voltage	100 - 240V AC @ 50-60 Hz
Operational voltage	85 - 264V AC
AC Connectors	16A Neutrik powerCON TRUE1 TOP with looping output
Finish	Polyurea coating high resistant paint
Material	15mm Premium birch plywood
Dimensions	254.5 x 600 x 480 mm (H x W x D) / with pins 613.5 mm (W)
Weight	27 Kg (59.5 lbs)
Intercabinet angle adjustment	0° to 10° in one degree increments



- Extraordinary high power output
- Integrated Digital processor (64 bit / 96 KHz)
- Front & rear audio and power connectors for cardioid applications
- Ergonomic design in premium birch plywood & finished in polyurea
- 2.8" IPS display with multifunction joystick control
- Stackable and flyable standard and/or cardioid configuration

High Output, extremely powerful sub-bass element designed to be used with the coaxial CLS-28 line array module.

It uses one high power, low distortion 18" custom speaker and can be used as a standard sub-bass or configurable as a cardioid.

Each cabinet is powered by a 3000W class D amplifier with PFC and includes a 32 bit/96Khz integrated DSP

Manufactured from premium grade birch plywood and with a polyurea finish the system can be flown in a single array or together with the CLS-28.

Applications: touring & fixed installations, sports stadiums, houses of worship, concert halls and auditoriums. Low frequency complement for CLS-28.



CLS-118S	
Components	LF: 18" Neodymium magnet transducer. 4.5" split winding copper voice coil, Waterproof cone with treatment for both sides. Aluminium demodulating ring for very low distortion. 1700 W (AES)
Frequency Range	30 Hz - 100 Hz (preset 100 Hz)
Coverage	Quasi omnidirectional
Max. SPL	131 dB / 137 dB
Power amplifier	3000W Class D with switching power supply & PFC
DSP	Internal Lynx Processor DSPB-FL. 96 KHz / 64 bit double-precision High performance 32 bit 96 KHz AD/DA converters 120dB
Configuration	Bass-reflex direct radiation enclosure
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 AES/EBU digital input optional
Nominal voltage	100 - 240V AC @ 50-60 Hz
Operational voltage	85 - 264V AC
AC Connectors	16A Neutrik powerCON TRUE1 TOP with looping output
Finish	Polyurea coating high resistant paint
Material	15 mm / 18 mm Premium birch plywood
Dimensions	600 x 613 x 770 mm (H x W x D) / with pins 609 x 613 mm (H x W)
Weight	58 Kg (127.8 lbs)

CLS-121S



- Extraordinary high power output
- Integrated Digital processor (64 bit / 96 KHz)
- Front & rear audio and power connectors for cardioid applications
- Ergonomic design in premium birch plywood & finished in polyurea
- 2.8" IPS display with multifunction joystick control
- Stackable and flyable standard and/or cardioid configuration

High Output, extremely powerful sub-bass element designed to be used with the coaxial CLS-212 line array module.

It uses one high power, low distortion 21" custom speaker and can be used as a standard sub-bass or configurable as a cardioid.

Each cabinet is powered by a 3000W class D amplifier with PFC and includes a 32 bit/96Khz integrated DSP.

Manufactured from premium grade birch plywood and with a polyurea finish the system can be flown in a single array or together with the CLS-212.



Technical Data

CLS-121S

Components	LF: 21" Neodymium magnet transducer. 4" quattro in/out copper voice coil, Waterproof cone treated on both sides. Malt Cross Technology cooling system. Aluminium demodulating ring for very low distortion. 1600 W (AES)
Frequency Range	30 Hz - 90 Hz (preset 90 Hz)
Coverage	Quasi omnidirectional
Max. SPL	131 dB / 137 dB
Power amplifier	3000W Class D with switching power supply & PFC
DSP	Internal Lynx Processor DSPB-FL. 96 KHz / 64 bit double-precision High performance 32 bit 96 KHz AD/DA converters 120dB
Configuration	Bass-reflex direct radiation enclosure
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 AES/EBU digital input optional
Nominal voltage	100 - 240V AC @ 50-60 Hz
Operational voltage	85 - 264V AC
AC Connectors	16A Neutrik powerCON TRUE1 TOP with looping output
Finish	Polyurea coating high resistant paint
Material	15 mm / 18 mm Premium birch plywood
Dimensions	608 x 800 x 778 mm (H x W x D) / with pins 814.5 mm (W)
Weight	64 Kg (141 lbs)

CLS-212



- Extraordinary power-to-size ratio
- Unique 6.5" dual diaphragm planar wave driver
- Perfect acoustical coupling of individual units to create virtually continuous line source & excellent phase coherence
- Extended bandwidth (60 Hz - 22 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

Extremely compact & extremely powerful 3-way, self-powered, DSP integrated coaxial line array element.

It uses Dual high power 12" custom, neodymium transducers for the low frequencies and two unique 6.5" dual diaphragm coaxial planar wave drivers for the mid/high frequencies.

Each cabinet is powered by a 6000W 2 channel class D amplifier with PFC and includes a 32 bit/96Khz integrated DSP

Manufactured from premium grade birch plywood and with a polyurea finish the system can be rigged & assembled in retracted position enabling a much easier set up without the need to lift each cabinet individually.

Applications: touring & fixed installations, sports stadiums, theatres, houses of worship, concert halls, auditoriums and club installations.



Technical Data

CLS-212

Components	<p>LF: 2 x 12". 4" DUO double layer in/out copper voice coil, Waterproof cone treated on both sides, Neodymium magnet. 1400 W (AES)</p> <p>HF: 2 x 6.5" dual diaphragm coaxial planar wave driver.</p> <p>- Mid: 3.5" (90 mm) voice coil, 150 W (AES)</p> <p>- High: 1.5" (44.4 mm) voice coil, 80 W (AES)</p>
Frequency Range	60 Hz - 22 KHz
Horizontal coverage	100°
Vertical coverage	Single element 10°
Max. SPL	142 dB / 148 dB
Power amplifier	<p>6000 W Class-D with switching power supply & PFC</p> <p>LF amplifier: 1 x 3000W</p> <p>MF/ HF amplifier: 1 x 3000W</p>
DSP	<p>Internal Lynx Processor DSPB-FL.</p> <p>96 KHz / 64 bit double-precision, DSP with FIR filter linear phase.</p> <p>High performance 32 bit 96 KHz AD/DA converters 120dB</p>
Crossover	Digital: FIR filter 500 Hz / Passive: 6.3 KHz
Control	User control interface with 2.8" IPS display and multifunction joystick controller
Control connections	<p>USB (DSP programming)</p> <p>Dual Ethernet port, Online Control System</p>
Input	<p>BAL/ UNBAL XLR connectors analog input</p> <p>AES/EBU digital input optional</p>
Nominal voltage	100 - 240V AC @ 50-60 Hz
Operational voltage	85 - 264V AC
AC Connectors	16A Neutrik powerCON TRUE1 TOP with looping output
Finish	Polyurea coating high resistant paint
Material	15 mm / 18 mm Premium birch plywood
Dimensions	384 x 800 x 480 mm (H x W x D) / with pins 815.5 mm (W)
Weight	47 Kg (103.6 lbs)
Intercabinet angle adjustment	0° to 10° in one degree increments

CLS-218S

Technical Data



- Extraordinary high power output
- Integrated Digital processor (64 bit / 96 KHz)
- Front & rear audio and power connectors for cardioid applications
- Ergonomic design in premium birch plywood & finished in polyurea
- 2.8" IPS display with multifunction joystick control
- Stackable and flyable standard and/or cardioid configuration

Compact and extremely powerful sub-bass element designed to be used with the coaxial CLS-212 or CLS-28 line array modules.

It uses two high power, low distortion 18" custom speaker and can be used as a standard sub-bass or configurable as a cardioid.

Each cabinet is powered by a 6000W class D amplifier with PFC and includes a 32 bit/96Khz integrated DSP

Manufactured from premium grade birch plywood and with a polyurea finish the system also has a number of dedicated accessories available.

Applications: touring & fixed installations, sports stadiums, theatres, houses of worship, concert halls, auditoriums and club installations. Low frequency complement for CLS-28 and CLS-212.

CLS-218S

Components	LF: Dual 18" Neodymium magnet transducer. 4.5" split winding copper voice coil. Waterproof cone treated on both sides. Aluminium demodulating ring for very low distortion. 1700 W (AES)
Frequency Range	30 Hz - 100 Hz (Preset 100 Hz)
Coverage	Quasi omnidirectional
Max. SPL	136 dB / 142 dB
Power amplifier	3000W Class D with switching power supply & PFC
DSP	Internal Lynx Processor DSPB-FL. 96 KHz / 64 bit double-precision High performance 32 bit 96 KHz AD/DA converters 120dB
Configuration	Bass-reflex direct radiation enclosure
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 AES/EBU digital input optional
Nominal voltage	100 - 240V AC @ 50-60 Hz
Operational voltage	85 - 264V AC
AC Connectors	16A Neutrik powerCON TRUE1 TOP with looping output
Finish	Polyurea coating high resistant paint
Material	18 mm Premium birch plywood
Dimensions	600 x 1200 x 770 mm (H x W x D)
Weight	81 Kg (178.5 lbs)



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