



## KEY FEATURES

- High-Output Coaxial Active Stage Monitor
- Coaxial Transducers, 15" woofer, 1" HF compression driver horn-loaded
- Single magnet neodymium motor
- 90° x 60° controlled coverage
- Dual angle monitor configuration (44° or 56°)
- CORE LT processing
- Digitally controlled Class D amplifier module with SMPS
- Dual-angle pole holder for multi-purpose applications
- Very compact & lightweight with low-profile design

## APPLICATIONS

- Live Stage monitoring
- TV and broadcast
- Theatres
- Corporate and A/V
- House of Worship

## TECHNICAL SPECIFICATIONS

### SYSTEM

System's Acoustic Principle	2-way coaxial vented enclosure
Frequency Response ( $\pm 3$ dB)	70 Hz – 18kHz (Processed)
Horizontal Coverage Angle	50° (-6dB)
Vertical Coverage Angle	70° (-6dB)
Maximum (peak) SPL	130 dB SPL @ 1m

### TRANSDUCERS

LF	One 15" (380mm), 2.5" (50mm) voice coil, waterproof cone
HF	One 1" driver, 1.7" (44mm) aluminium voice coil, polyimide diaphragm, horn-loaded

### ELECTRICAL

Input Impedance	20 k $\Omega$ balanced, 10 k $\Omega$ unbalanced
Input Sensitivity	+4dBu / 1.25V
Signal Processing	CORE LT digital processing, 24 bit AD/DA converters
Controls	5 Presets (NORMAL WEDGE/COUPLED UNITS/LOW CUT/FOH/FOH LOW CUT)
Amplifier Type	Class D with SMPS
Output Power	900W + 300W
Mains Voltage Range (Vac)	220-240 V~ or 100-120 V~ $\pm 10\%$ 50/60 Hz (internally selectable)
IN / OUT Connectors	Neutrik® XLR-M / XLR-F
Mains Input Connector	Neutrik® powerCON™ (NAC3MPA)
Mains Link Connector	Neutrik® powerCON™ (NAC3MPB)
Cooling	Variable speed DC fan

### ENCLOSURE & CONSTRUCTION

Dimensions	630mm W x 376mm H x 427mm D
Taper	Stage Monitor: 44° and 56°
Pole holder	One on the side, dual angle
Enclosure Material	15mm, reinforced phenolic birch
Paint	High resistance, black water based paint
Net Weight	19.7 kg / 43.4 lbs

## DESCRIPTION

The CXL15A is a coaxial stage monitor designed specifically for live sound, although the very compact, low-profile enclosure also makes it suitable for theatre and television applications. The combination of a high-performance coaxial transducer, a carefully designed cabinet, and powerful electronics provides very high SPL before feedback and excellent intelligibility even at very high power.

The transducer's coaxial design offers a very stable acoustical pattern in both the horizontal and vertical axes. The very compact, single magnet neodymium motor reduces the delay between the two sources, eliminating time and phase problems, and guarantees high performance with a consistent weight reduction.

The high frequency range is reproduced by a low-distortion compression driver equipped with a 1.7" aluminium voice coil and polyimide diaphragm. The custom designed horn provides a precise and controlled dispersion of 50° horizontal and 70° vertical, allowing an excellent performance at close listening distance and, at the same time, a consistent off-axis coverage.

The 15" woofer employed in the reproduction of the low frequency range is equipped with a 2.5" voice coil. Thanks to a special treatment process that makes the cone water repellent, the CXL15A is able to perform in adverse weather conditions and is therefore suitable for outdoor use.



## CABINET DESIGN

The reduced size of the Baltic birch cabinet (only 37cm high and 63cm wide) makes the CXL15A a very compact and lightweight stage monitors and makes it suitable for all applications where unobtrusive size is a must. This includes not only live concerts, but also theatre shows and TV applications.

The reduced weight (less than 20 kg) and the handles on both sides of the cabinet make it very easy to transport the monitor and to position it on stage. A convenient dual-angle pole holder allows the CXL15A to be mounted on a standard speaker stand to be used as a multipurpose front of house loudspeaker.

The possibility to position the cabinet with two different angles to the floor (44° and 56°) enables it to be placed at differing distances from the musicians according to the size of the stage and to the kind of monitoring needed.



## SYSTEM PROCESSING

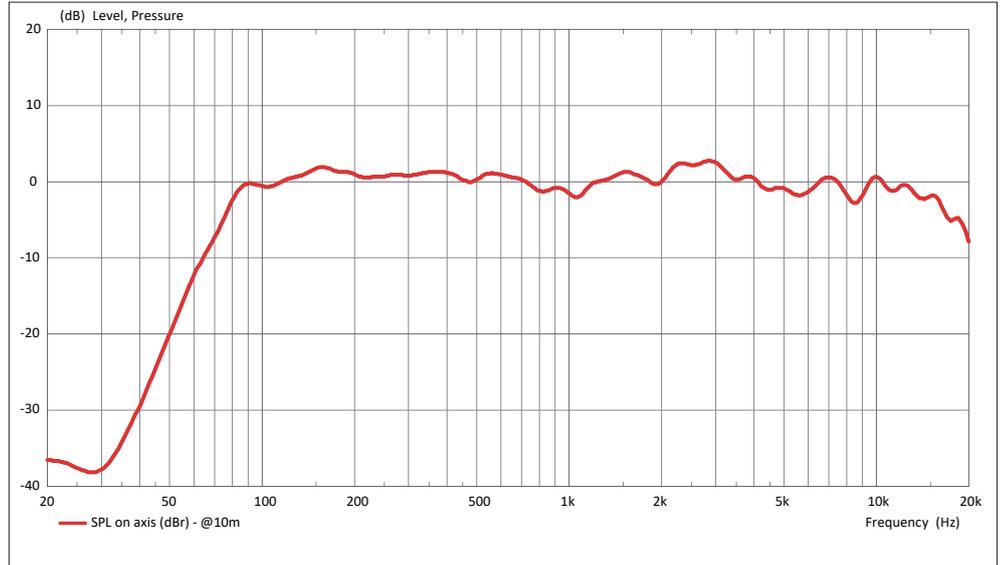
The system processing is based on the CORE LT DSP platform designed by the PROEL R&D Laboratories, featuring high-performance signal processing and high-definition 24bit converters, capable to deliver an outstanding sound definition and dynamic performance.

The CORE LT DSP makes it possible to set an optimal time alignment for the crossover filter resulting in a linear phase response. The correct acoustic filtering has been achieved using the Constant Power Crossover technique that, thanks to a particular phase relation, results in a very smooth transition between LF and HF and an even dispersion in the crossover region.

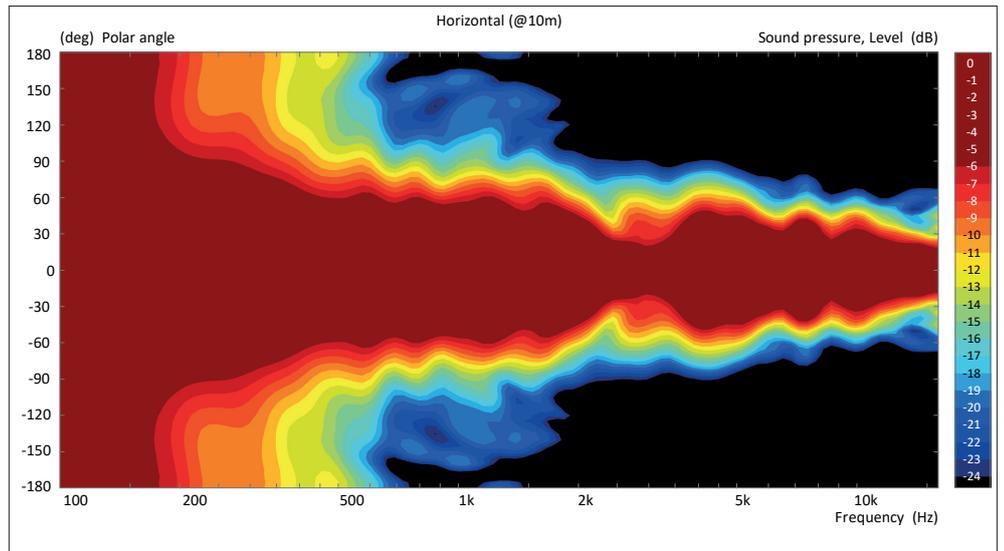
The CORE LT DSP signal processing includes a sophisticated Dynamic EQ, able to shape accurately the system's sound while maintaining a full dynamic range at any level. In addition the CORE LT DSP offers an extensive dynamic protection to the system, for getting always the maximum undistorted output.

5 EQ PRESETS (NORMAL WEDGE, COUPLED UNITS, LOW CUT, FOH, FOH LOW CUT) can be easily selected to adapt the monitor to different kinds of application, including the use as a front-of-house system.

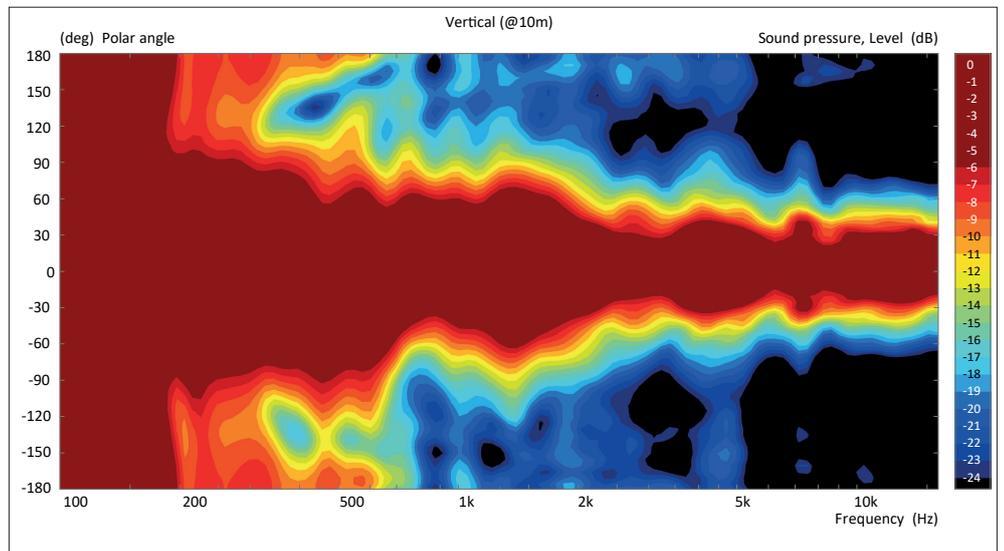
## CXL15A frequency response



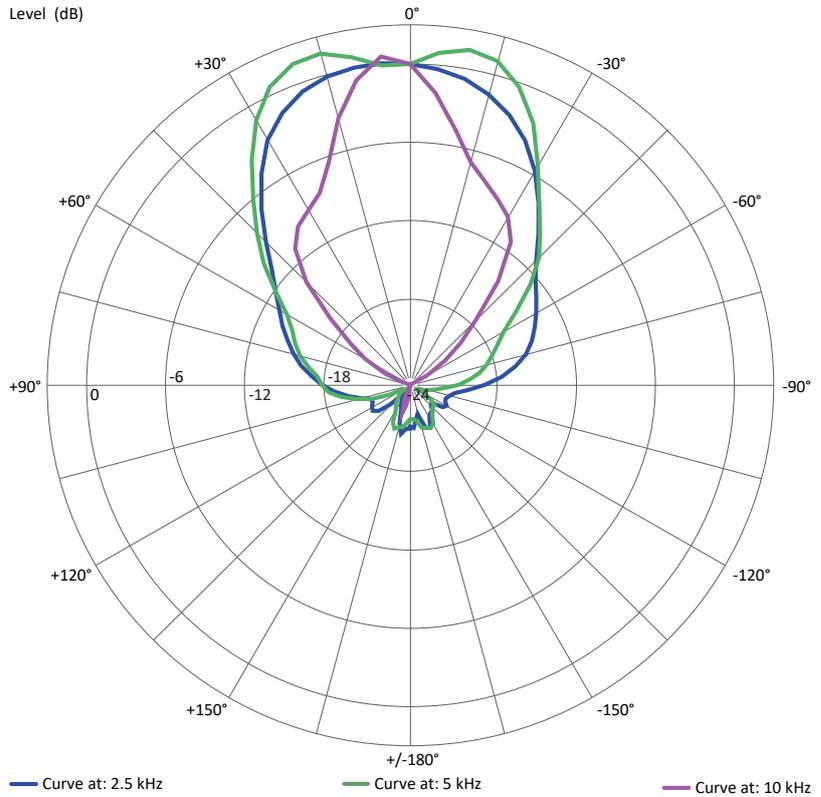
## CXL15A HORIZONTAL directivity map



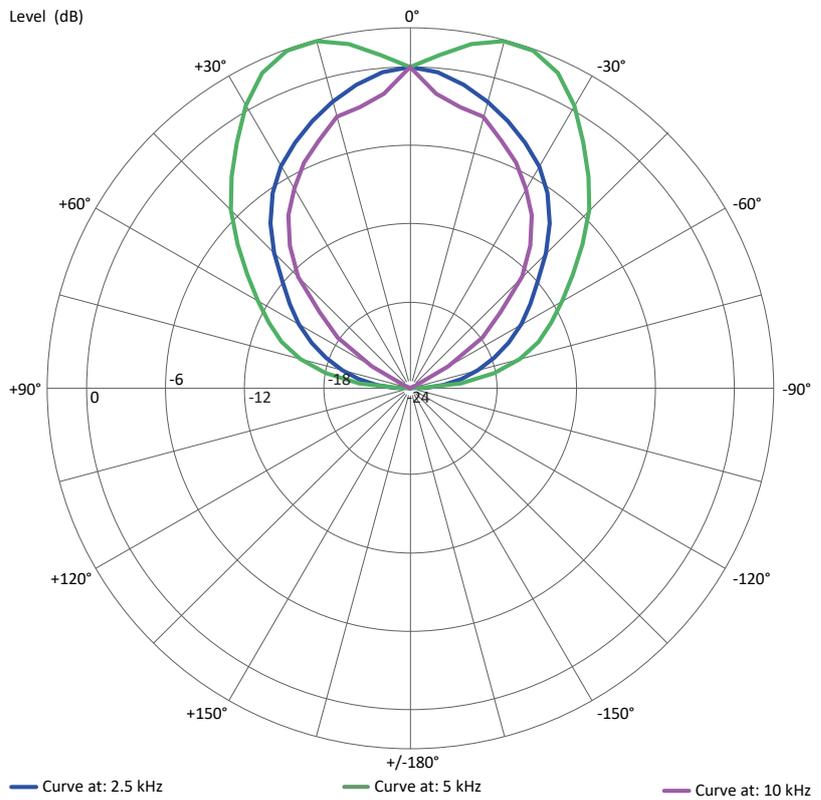
## CXL15A VERTICAL directivity map



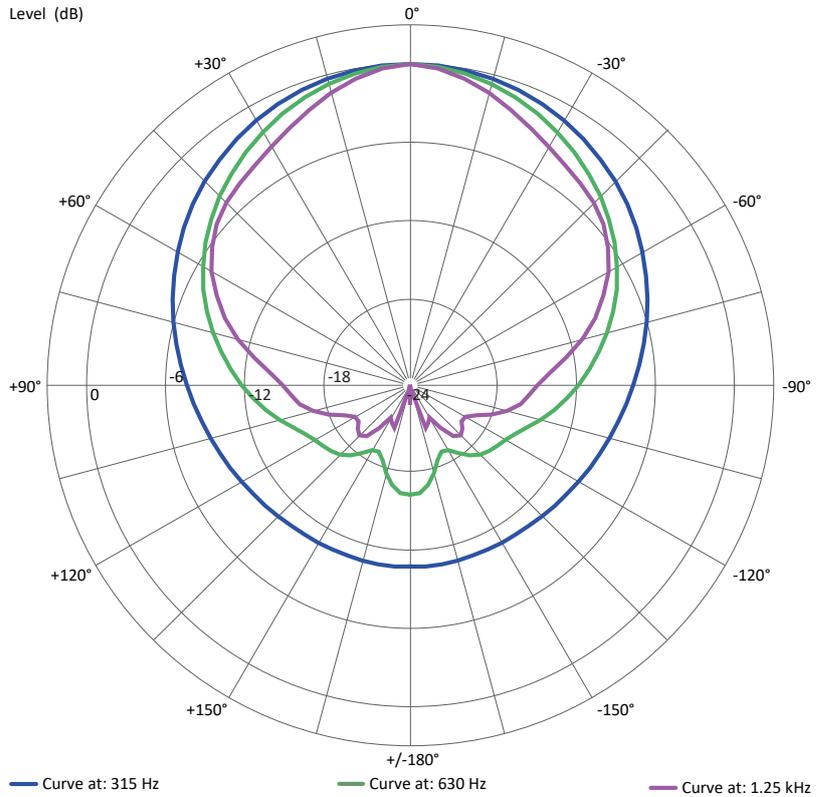
## CXL15A HF HORIZONTAL polar diagram



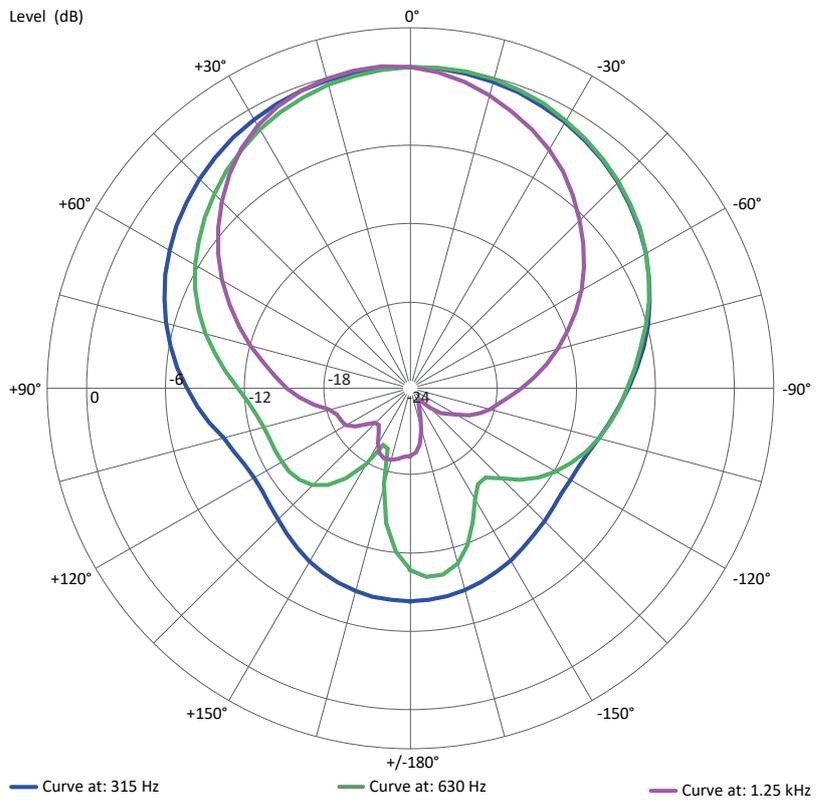
## CXL15A HF VERTICAL polar diagram



## CXL15A LF HORIZONTAL polar diagram



## CXL15A LF VERTICAL polar diagram



## POWER AMPLIFIER

The CXL15A is powered by a DA Series Class D power amplifier with SMPS. The innovative technology used for these amplifiers offers top-of-the-range performance, such as superior sound definition at any audio frequency, very high dynamics even for low level signals, and very low distortion even at maximum power.

The superior sound quality can be compared with top-of-the-range AB-class analogue systems, while the DA module features higher dynamic range, very compact size, light weight, and efficiency better than 90%. Output power is optimized specifically to the drive units for efficient power transfer, with the low frequency section producing 900 watts and 300 watts being available for the high frequency compression driver. Input and link connections are via balanced 3-pin XLR connectors, and a ground lift switch is provided for hum-free operation. Mains power is connected through a locking Neutrik® powerCON™, and a power out connector allows mains power to be linked to additional CXL12A cabinets.



## ENGINEERING DRAWING

