



# 112XT

COAXIAL  
TECHNOLOGY

## APPLICATIONS

The L-ACOUSTICS® 112XT loudspeaker enclosure, combined with the power of digital processing, provides a highly versatile system that is designed for distributed sound reinforcement. Intended for high performance touring or fixed installation, the 112XT features advanced components and rigging accessories while also benefiting from the flexibility afforded by custom-engineered digital presets.

The 112XT is an active 2-way loudspeaker enclosure containing a 1.4" exit compression driver that is directly loaded by a 12" loudspeaker in a coaxial configuration. Advantages of the coaxial approach include: single point source radiation and excellent phase response, total wavefront coherency at all frequencies and axi-symmetrical directivity that produces identical horizontal and vertical coverage. Coaxial design also provides LF/HF superimposed dispersion characteristics that are free of polar lobing effects typical of traditional horn and woofer combinations. The end result is natural, studio monitor level sound quality, ideal for proximity use and perfectly matching semi-reverberant environments.

The 112XT is designed for distributed sound reinforcement and can also be used in medium power front-of-house (FOH) applications for theatres, clubs, multi-purpose venues or corporate events. Examples of distributed systems include delay rings for large-scale installations, surround effects channels for theatre or multimedia, distributed reinforcement for sports venues and delays for speech reinforcement in convention centre ballrooms. Although optimized for single operation, the 112XT can be used in vertical arrays of two enclosures to enhance either SPL or coverage. Due to its compact, wedge-shaped format and axi-symmetrical directivity, the 112XT provides an exceptionally high performance floor monitor solution. When used with the SB118 (or other L-ACOUSTICS subwoofers), the 112XT is also excellent for side fill and drum monitoring applications.

OEM factory presets are available for approved digital processors, providing flexible solutions for a wide variety of 2- and 3-way operating modes.

Pole mount sockets and side-mounted fly track sections are included as standard on the 112XT and optional rigging accessories include an adjustable U-bracket and a vertical coupling adapter.

## L-ACOUSTICS PROFESSIONAL SOUND SYSTEM



- ▶ **Active two-way enclosure (12" LF, 1.4" HF)**
- ▶ **High power coaxial driver assembly**
- ▶ **Point source radiation (90° conical directivity)**
- ▶ **Versatile format for distributed sound reinforcement**
- ▶ **Wedge-shaped for floor monitor use**
- ▶ **Suitable for medium-power FOH applications**
- ▶ **Designed for high performance touring and fixed installation**
- ▶ **Compact, rugged construction, advanced rigging**
- ▶ **OEM factory presets for approved digital processors**

## SPECIFICATIONS

L-ACOUSTICS specifications are based on measurement procedures which produce unbiased results and allow for realistic performance prediction and simulation. Some of these specifications will appear very conservative when compared with other manufacturer's specifications. All measurements are conducted under free field conditions and scaled to a 1 m reference distance unless otherwise indicated.

### Frequency Response

Frequency response	65 - 18k Hz (±3 dB)	(FRONT preset)
Usable bandwidth	55 - 18k Hz (-10 dB)	

### Sensitivity<sup>1</sup>

LF (2.83 Vrms @ 1m)	98.5 dB SPL	65 - 1k Hz
HF (2.83 Vrms @ 1m)	106 dB SPL	1 - 18 kHz

### Power Rating<sup>2</sup> (Long Term)

LF	48 Vrms	290 Wrms	1160 Wpeak	580 W
HF	33 Vrms	135 Wrms	540 Wpeak	540 W

### Amplification (Recommended)

### Impedance (Nominal)

8 ohms
8 ohms

### Nominal Directivity (-6dB)<sup>3</sup>

Axi-symmetrical	90° (± 20°)
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### System Output<sup>4</sup>

	SPL		
One enclosure	122 dB (cont)	128 dB (peak)	FRONT preset
	124 dB (cont)	130 dB (peak)	FILL preset
	125 dB (cont)	131 dB (peak)	3W preset

FRONT preset provides 3 dB low and high frequency contours under freefield conditions

FILL preset provides nominally flat response under freefield conditions

3W preset applies a 100 Hz high pass filter

### Components

LF	1 x 12" weather resistant loudspeaker (3" voice coil)
HF	1 x 1.4" exit compression driver (titanium diaphragm, 3" voice coil, coaxial assembly)

<sup>1</sup> Sensitivity is the average SPL measured over the component's rated bandwidth

<sup>2</sup> Power rating displays the long term RMS power handling capacity using pink noise with a 6 dB crest factor over the component's rated bandwidth

<sup>3</sup> Directivity is averaged over the 1-10 kHz range

<sup>4</sup> System Output gives the unweighted SPL output of the system referenced to 1 m, including preset equalization and band leveling adjustment as measured under freefield conditions.

### Enclosure

- Height 540 mm 21.3 in
- Front Width 416 mm 16.4 in
- Rear Width 167 mm 6.6 in
- Depth 381 mm 15 in
- Trap Angle 45 degrees with respect to vertical
- Net Weight 27 kg 59.5 lbs
- Shipping Weight 30 kg 66.1 lbs
- Shipping Dims 615 x 470 x 465 mm 24.2 x 18.5 x 18.3 in
- Connectors : 2x 4-pin Neutrik speakon
- Material : 18mm, 30mm Baltic birch plywood
- Finish : Maroon-gray™
- Grill : Black epoxy perforated steel with acoustically transparent, technically-advanced grille cloth
- Rigging : Integrated flying hardware, handles and pole mount socket

### Additional Equipment

- OEM factory presets available for approved digital processors
- L-ACOUSTICS SB115, SB118, SB218, dV-SUB subwoofers
- L-ACOUSTICS LA 17a or LA 24a power amplifier

## ARCHITECT SPECIFICATIONS

The enclosure shall be an active, two-way, coaxial full range loudspeaker containing one direct radiating, bass reflex-loaded, 12 inch low frequency transducer and one 1.4 inch exit, 3 inch voice coil diameter, titanium alloy diaphragm compression driver. As a full range system, the frequency response shall be 65 Hz to 18 kHz with less than  $\pm 3$  dB variation and the usable bandwidth shall be 55 Hz to 18 kHz (-10 dB).

The cone body of the low frequency component shall provide pattern control loading of the compression driver and yield a 90-degree conical dispersion pattern that is axi-symmetrical. The crossover point between low and high frequency components shall be 1 kHz with 24 dB per octave Linkwitz-Riley characteristics. Long term power handling shall be 290 Wrms for the low section and 135 Wrms for the high section at a nominal 8-ohm impedance. Connection to the loudspeaker shall be made via two parallel 4-pin Neutrik Speakon connectors.

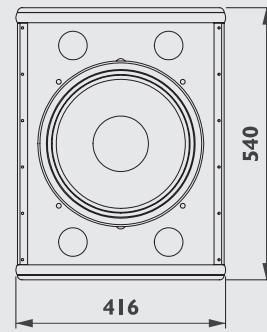
The enclosure shall have a truncated wedge shape with a curved front profile. Dimensions shall be 54 cm (21.3 in) high, 41.6 cm (16.4 in) wide at the front of the enclosure, 16.7 cm (6.6 in) wide at the rear of the enclosure and 38.1 cm (15 in) deep. When used on its rear side, the front baffle of the enclosure shall be oriented at a 45-degree angle with respect to vertical, allowing the enclosure to be used as a floor monitor. Enclosure weight shall be 27 kg (59.5 lbs). Cabinet construction shall consist of 30 mm (1.18 in) and 18 mm (0.70 in) Baltic birch plywood with internal steel bracing and joints that are sealed, screwed and rabbeted. The finish shall be maroon-gray high resilient paint. The front of the enclosure shall be protected by a black powder-coated, 1.5 mm (0.06 in) thick steel grill that is covered with acoustically-transparent, highly-resistant, technically-advanced grille cloth.

The enclosure shall have recessed flytrack sections and 36 mm (1.42 in) diameter pole mount sockets mounted on the top and bottom sides. Pole mount sockets shall function with a U-bracket accessory for rigging the enclosure in either horizontal or vertical orientations and provide angular adjustment with 10 degree resolution. Two coupling adapter bars shall be used in conjunction with the U-bracket accessory and allow two enclosures to be flown vertically while providing independent tilt adjustment for each enclosure. A liftbar accessory shall function with either of the pole mount sockets and provide five attachment points for rigging purposes.

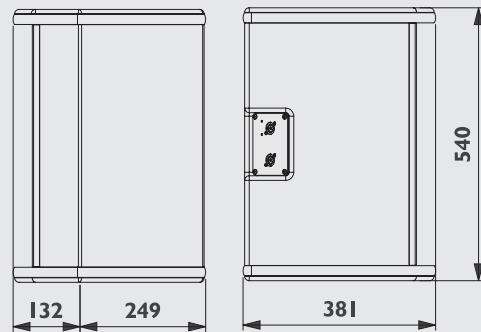
The loudspeaker shall be used with an approved digital processor with OEM factory presets for active 2-way or 3-way operation in conjunction with additional subwoofer enclosures.

The loudspeaker system shall be the L-ACOUSTICS I12XT.

The subwoofer system shall be the L-ACOUSTICS SB115, SB118, SB218 or dV-SUB.

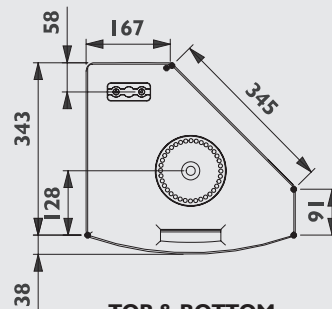


FRONT

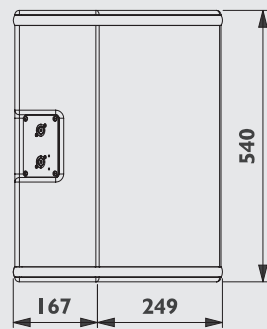


LEFT SIDE

RIGHT SIDE



TOP & BOTTOM



REAR

SCALE 1:15

(Dimensions in mm)

## ACCESSORIES

**ETRI12XT:** Adjustable U-Bracket for ceiling, wall or scaffold mounting of the I12XT in either horizontal or vertical orientations.

**CPLI12XT:** Coupling adapter bars used in conjunction with ETRI12XT to array two I12XT vertically with independent tilt adjustment for both enclosures.

**XTLIFTBAR:** Allows for single point rigging of the I12XT with 5 pick points available for tilt adjustment.

**PION 2:** Double stud Aeroquip fitting to ring (for use with side-mounted flytrack sections)



ETRI12XT

CPLI12XT

XTLIFTBAR

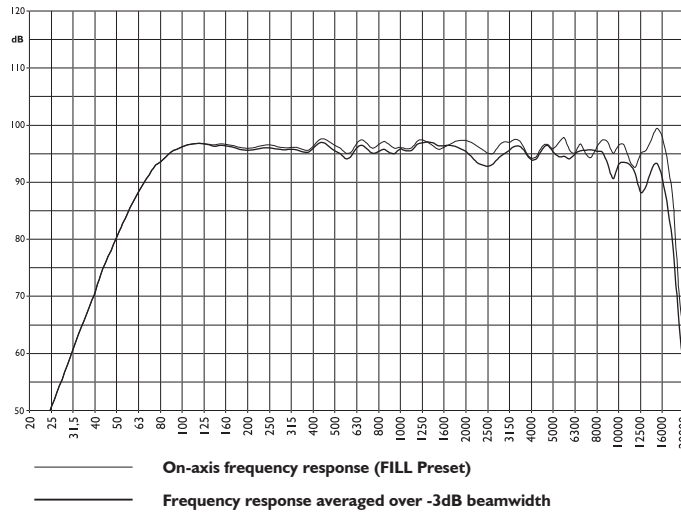
PION2



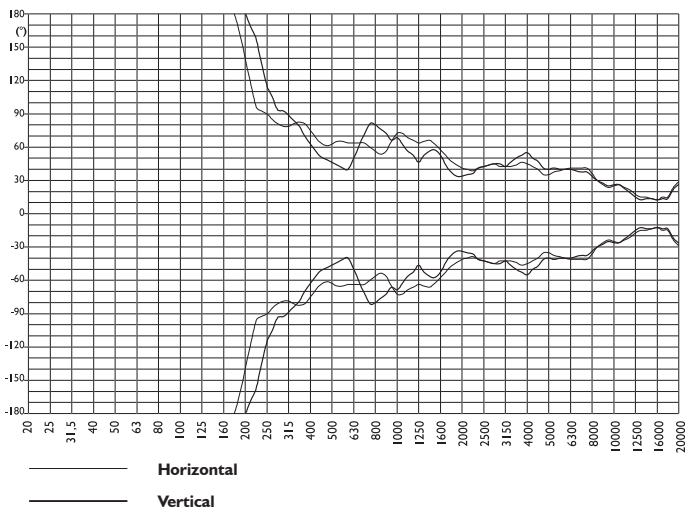
# 112XT

## PERFORMANCE DATA

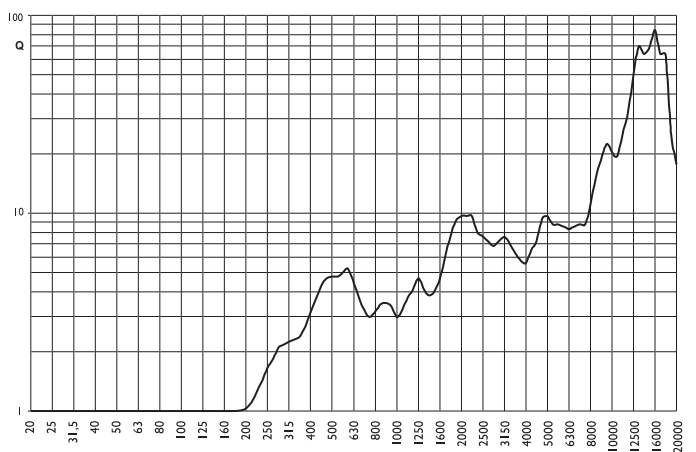
### FREQUENCY RESPONSE



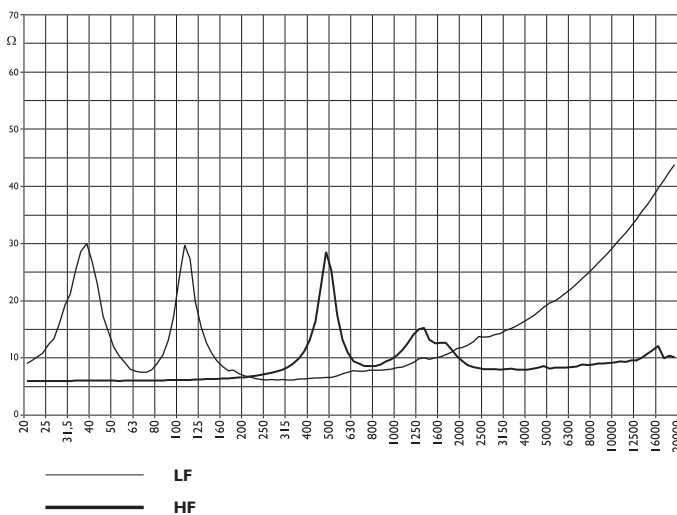
### BEAMWIDTH (-6dB)



### DIRECTIVITY FACTOR Q



### IMPEDANCE



## FURTHER INFORMATION

### OEM Factory presets

- For 2-way operation, three types of presets are provided: FRONT presets are for standalone FOH operation (without subwoofers) where low and high frequency shelving equalization provides a frequency response contour suitable for music applications. FILL presets provide nominally flat response for use in speech reinforcement and classical music applications or when the I12XT is used as a close proximity fill enclosure. Both FRONT and FILL presets are derived under freefield measurement conditions. MONITOR presets include additional low frequency equalization to account for half-space loading conditions and are intended for floor monitoring applications or fixed installations where the I12XT is wall- or ceiling-mounted.
- A variety of 3-way presets are provided for use of the I12XT with SB115, SB118, SB218 or dV-SUB subwoofers. Standard 3W presets utilize a complimentary 100 Hz crossover point for the I12XT and its companion subwoofer and are recommended for closely coupled applications. Alternatively, when the I12XT is flown and subwoofers are ground stacked, 3WX presets can be employed where an 80 Hz low pass filter is applied to the subwoofers and I12XT low frequency response extends to 55 Hz.

