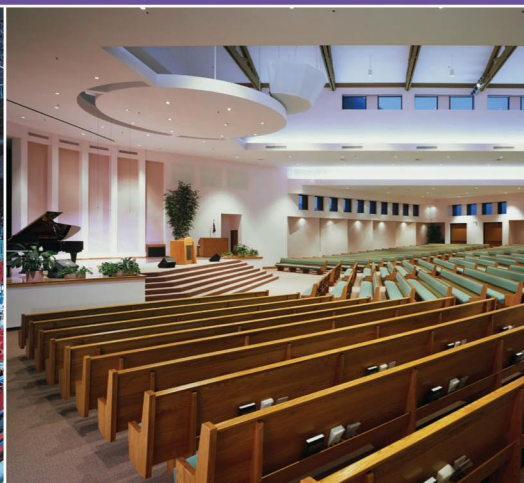




FIXED INSTALLATIONS

XLC COMPACT FULL BANDWIDTH LINE ARRAY SYSTEM



CONTROL WITH PREDICTABILITY

COMPACT, LIGHTWEIGHT DESIGN

FAST INTEGRATED RIGGING

TRUE 3-WAY DESIGN

SOFTWARE AIMING PROGRAM



ELECTRO-VOICE® X-LINE™ COMPACT (XLC™)
FULL-BANDWIDTH LINEAR-ARRAY
LOUDSPEAKER SYSTEM



A successful design philosophy that solves problems, improves performance, and makes a difference in how needs are satisfied defines the Electro-Voice XLC system. EV designed its compact linear array from the ground up to sound the best, to rig faster and easier, and to provide the best uniformity of coverage. Simply said, to be the best.

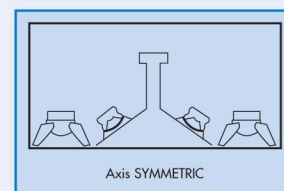


C O M P A C T F U L L

AXIS ASYMMETRICAL DESIGN

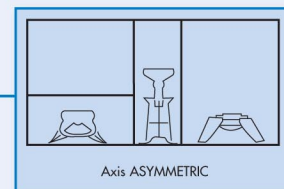
The Problem:

Most linear-array systems — whether large-format stadium systems or compact designs — are axis-symmetrical designs. This approach places the mid- and low-frequency drivers symmetrically across the vertical axis of each cabinet. Such designs succeed in generating identical polar radiation on both sides of the cabinet. Unfortunately, the narrowing of coverage patterns that unify the vertical elements of a linear array into a seamless wavefront works against such designs in the horizontal plane. The horizontal arrangement of drivers within each cabinet creates, in effect, miniature horizontal linear arrays. Their horizontal coverage patterns narrow, and lobing results, creating dead spots along the horizontal plane. When such lobing is fixed through the use of very low crossover points, HF compression drivers and mid-range drivers overload easily and real sonic problems occur, like high distortion, poor reliability and generally poor fidelity. Axis-symmetrical designs are, therefore, incomplete solutions.



The XLC Solution:

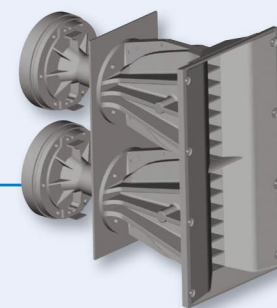
XLC, however, is an axis-asymmetrical design. Within each XLC cabinet, mid- and high-range drivers are arrayed vertically, eliminating the problems inherent in horizontal arrays. The sonic results are clearly superior: better stereo imaging, no horizontal lobing, and better integrated system fidelity. Advantage: XLC!



HIGH FREQUENCY SUMMING — THE HYDRA

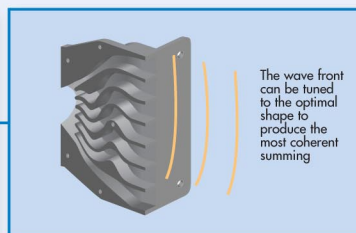
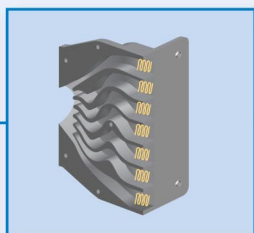
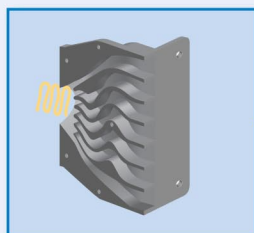
The Problem:

Accurate high-frequency summing of linear arrays is achieved only through careful control of the phase relationships between each HF device. However, there is no physical (or, more importantly, electronic) way to produce a single cohesive wave front from multiple sources. The simple HF waveguide designs used in most competitive linear arrays produce several individual wave fronts that are slightly out of phase with each other. Such phase distortion creates peaks and dips that introduce dead spots in the listening field.



The XLC Solution:

EV's innovative HF waveguide, the Hydra™, is a plane-wave generator that can be tuned to produce optimal wave-front geometry for any design. The Hydra sections in the XLC are precisely tuned to the overall array geometries required for typical compact linear-array applications. Such optimization reflects the innovative design philosophy found everywhere in the XLC system. The result is superior high-frequency summing throughout the entire listening field, near or far.



The wave front can be tuned to the optimal shape to produce the most coherent summing

BANDWIDTH LINE ARRAY SYSTEM

XLC APPLICATIONS

Flexibility:

XLC's features make it the ideal, top-of-class choice for permanent installations and mobile applications alike.

Fixed/Permanent Installation Applications

Performing arts venues
Houses of worship
Arenas

Sports facilities
Theme parks

Fixed/Permanent Installation Applications

Corporate events
Medium- and small-format touring systems
Wraps, sides, and delay in large spaces

ONE-PERSON RAPID RIGGING

Quick and Easy:

XLC's rigging is classic EV: precise and very safe. The unique design allows one person to hang an XLC array, even on irregular outdoor surfaces. The XLC design also allows for in-the-air aiming (most competitive systems require the system to be lowered and reconfigured). The XLC system is designed for fine-tuning in a real world environment. The captive front interlocking system has no separate parts to keep track of, and it disappears into the frame to maintain an uncluttered, attractive appearance.



AIMING SOFTWARE

Performance:

XLC's acclaimed aiming program Line Array Prediction Software (LAPS) is critical for achieving consistent array hangs. Simple data input of venue dimensions, hang geometries, and trim parameters generates not only front-to-back SPL performance data, but also critical safety-factor information. The aiming software produces repeatable results and allows the user to optimize the array for any given venue.

XLC Modeling Program Instructions

1. Define the room
2. Construct the array
3. Attach dimensions and hanging safety factors
4. Plotting the acoustic prediction

Setting Up the Room

Room Configuration Options:
Click the buttons to select these options. The room may contain up to 2 balconies as shown in the picture. **Indoor/Outdoor option:** Outdoor is selected the acoustic model will include an extra factor that approximates the effects of thermal gradients that occur on warm sunny days. This effect occurs when the temperature at ground level is several degrees higher than the temperature at 20 or 30 feet above the ground.

Room Data Entry:
Distance/Angle: Enter the distance from the floor directly under the hang to the seat locations A through G. Enter the angle from the floor directly under the hang to seat locations C through G. All distance and angle measurements are referenced from the point on the ground that is directly under the far rear edge of the floor mount on the array. After entering the room dimension switch to the Design System page to see the display of the seating plan. This distance is given the distance to first seat in the audience. The value is usually entered as zero so that the sound distribution is calculated along the floor to the point beneath the array.

Room Measurement Equipment: Distance and Angle measurements are most easily obtained by using a laser range finder, and a laser aimed level.

Side View: Enter the depth of venue and the height of the venue measured from the floor under the hang to each location. These dimensions are usually obtained from architectural drawings.

Room Data Entry Table:

Distance	Angle	Height	Depth
0.0 Feet	0.0°	A	0.0 Feet
50.0 Feet	0.0°	B	0.0 Feet
100.0 Feet	0.0°	C	0.0 Feet
150.0 Feet	0.0°	D	0.0 Feet
200.0 Feet	0.0°	E	0.0 Feet
250.0 Feet	0.0°	F	0.0 Feet
300.0 Feet	0.0°	G	0.0 Feet

Diagram: A diagram showing the room configuration with the array hang and the seating plan. The diagram includes labels for the array, the room, and the seating plan. The seating plan shows the array hang and the seating locations A through G.



THE X^{LC} SYSTEM

A three-box solution includes the X^{LC} 127 main enclosure, the X^{LC} 124 downfill, and the X^{LC} 118 subwoofer.

X^{LC} 127 Main Enclosure

The three-way tri-amped axis-asymmetric design includes a passive crossover for bi-amp operation, if desired. An optimized single 12-inch EV speaker is used for the low-frequency/mid-bass section of the spectrum. Two 6.5" custom-designed drivers in a vertical array comprise the mid-frequency bandpass. The X^{LC} 127 comes with two medium-format EV DH2T compression drivers loaded on two Hydra plane-wave generators. With horizontal coverage of 120 degrees, the X^{LC} system accurately covers wide areas while maintaining excellent imaging and lobe-free coverage.



X^{LC} 118 Subwoofer

X^{LC}'s subwoofer uses the legendary EVX180B, the same 18-inch used in the subwoofer for X^{LC}'s namesake, EV's X-Line™. The X^{LC} 118's cabinet has 1.5 times the height of the X^{LC} 127's and X^{LC} 124's cabinets. Since two X^{LC} 118 cabinets equal the height of three X^{LC} 127/X^{LC} 124 cabinets, the subs can be integrated into the main hang or flown beside the main system at a 3:2 ratio, maintaining aesthetic requirements for equal hang heights (if desired).

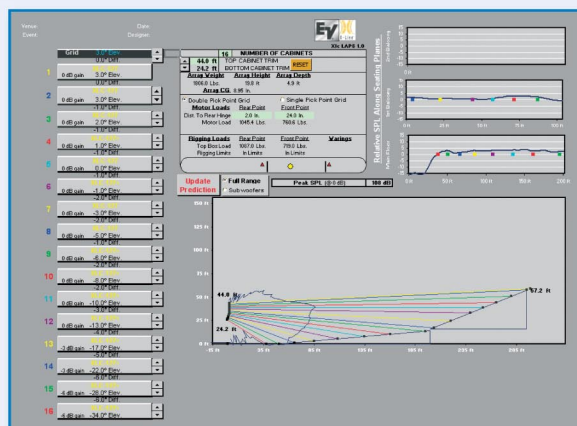


Venue		Event		Date		Designer	
<input type="checkbox"/> No Balcony <input type="checkbox"/> 1 Balcony <input type="checkbox"/> 2 Balcony		<input type="checkbox"/> Indoors <input type="checkbox"/> Outdoors		<input type="checkbox"/> Imperial (Yards) <input type="checkbox"/> Imperial (Feet) <input type="checkbox"/> Metric (Meters)			
Distance/Height		Room Data Entry		Site Plan			
Distance	Incline Angle	Seating Location	Height (ft)	Height (ft)			
0.0 Feet	—	A					
50.0 Feet	0.0°	B					
200.0 Feet	4.0°	C					
200.0 Feet	4.5°	D					
200.0 Feet	10.0°	E					
		F					
		G					
Room Measurements are made from:		Stage					
<input type="checkbox"/> Floor <input type="checkbox"/> behind array <input type="checkbox"/> in front of array							
Distance from Front of Array	2.0 Feet						
Height from Floor	2.0 Feet						
Height at top of main floor tier	10.0 Feet						
Height at top of balcony	57.2 Feet						
Height at top of 2nd balcony	9.0 Feet						

Venue Measurement Points
A, B, C, D, E, F, G

Room Data Entry:
 A: First Seat in Audience
 B: Last Seat on Floor
 C: Last Seat on Floor Plane
 D: First Seat in 1st Balcony
 E: Last Seat in 1st Balcony
 F: First Seat in 2nd Balcony
 G: Last Seat in 2nd Balcony
 S: Stage

Room Data Entry:
 Enter the distance from the floor directly under the hang to the seat location A through G. Enter the angle from the floor directly under the hang to the seat location C through G. Enter the height of the venue measured from the floor under the hang to each seat location. These dimensions are usually obtained from architectural drawings. Measurements made from floor at stage. Select where you are standing when the room measurements are made. If stage is selected the height and depth of the stage are added to measurement position, adjusting the seating plane locations (B through G) accordingly. If floor is selected the stage position is shown for reference but does not affect the room geometry. **Stage Position:** Enter distance to the front edge of the stage relative to the top rear edge of the top value in the array, stage depth a positive number and select whether the stage is behind the array, or extends out in front of the array. Also enter the height of the stage above the floor (the height above point A). **Indoor/Outdoor:** If outdoors is selected the acoustic model will include an extra factor that approximates the effects of thermal gradient that occur on warm sunny days. The effect occurs when the temperature at ground level is several degrees higher than the temperature at 25 or 30 feet above the ground.





Technical Specifications for XLC Cabinets

Specification	XLC 127	XLC 118
Horizontal Coverage	120°	300°
LF Power Handling	300 W cont./1200 W peak	600 W cont./2400 W peak
MB Power Handling	200 W cont./800 W peak	—
HF Power Handling	120 W cont./480 W peak	—
Sensitivity (LF/MB/HF)	95 dB/101 dB/110 dB	102 dB*
LF Transducer	1 x 12" DL12 (X-variant)	1 x 18" EVX180B
MB Transducer	2 x 6.5"	—
HF Transducer	2 x DH2T	—
Connectors	2 Neutrik® NL8	2 Neutrik® NL8
Enclosure Material	Futura®-coated plywood	Futura®-coated plywood
Grille	Powder-coated steel	Powder-coated steel
Environmental Specs	IEC 529 IP24 MIL STD 810	IEC 529 IP24 MIL STD 810
Dimensions (H x W x D)	14.25" x 39" x 22.5" (362 x 991 x 572 mm)	21.5" x 39" x 22.5" (546 x 991 x 572 mm)
Net Weight	111 lbs (50.4 kg)	120 lbs (54.5 kg)
Shipping Weight	116 lbs (52.6 kg)	140 lbs (63.6 kg)

*Half space environment

Technical Specifications for Four-Cabinet XLC 127 Array

Specification	4 x XLC 127 Array
Frequency Range (-3 dB)	70 Hz–16 kHz
Sensitivity (1 W/1 m)	112.5 dB
Max Calculated SPL (1 W/1 m)	135 dB cont./141 dB peak
Horizontal Coverage	120°
Vertical Coverage	Splay dependent
LF Power (recommended)	EV® P2000
MB Power (recommended)	EV® P2000
HF Power (recommended)	EV® P2000

For very large spaces, or other applications that require greater high frequency energy capability, an XLC 127+ with large format Nd6 compression drivers is available.

Optional Accessories

Wheel Boards	127/127+ dolly	118 dolly
Covers	127/127+ cover	118 cover
Hanging Grid	Comprises 2-side arms and 2 spreader bars. Supports 16 cabinets @ 8:1 safety margin	



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