

C15 Line Array



Applications

Performing Arts Centers
Houses of Worship
Stadiums/Arenas
Night Clubs

Features

Max Output 145 dB*
LF Devices: (2) 15 in (381mm)
MF Devices: (4) 6 in (152.4mm)
HF Devices: (4)
Exit: 1.4 in (35.6mm)
Voice Coil Diam: 3.0 in (76.2mm)
90°H x 10° V Coverage
Three-Way Active
Integral Bimodal Rigging
Epoxy Mastic Finish
EP-8 Connector

* [SPL at 1 Meter bandpass dependent]

General Description

The C15 line array is Clair Brothers latest innovation in line array technology building on a heritage of 15 years of line array experience. It incorporates an all new approach in midrange and high frequency technology, providing excellent controlled directivity and linearity. The centrally located mid/high section provide 90° horizontal by 10° vertical coverage and are symmetrically flanked by the C15 low frequency sections. A major development incorporated in the C15 design is the addition of a midrange waveguide. A totally unique midrange waveguide serves to add higher directivity to midrange in the vertical and horizontal planes than direct radiators while serving to create a coherent midrange wavefront without coloration or throat distortion.

Each 15" features a neodymium magnet motor with a 4" voice coil. Each low frequency driver is front loaded in its own tuned reflex chamber with venturi reflex porting. The 15" woofers are angled in opposing directions to such a degree that the polar pattern of the midrange of the 15" woofers matches the polar pattern of the midrange waveguides providing a seamless transition and extended low-mid range directivity pattern control.

C15 enclosures are equipped with integrated bimodal rigging including adjustable rear rigging for a variety of live sound applications. The rear rigging device allows the speaker array to be adjusted from 0° to 10° at 0, 1.25, 2.5, 3.75, 5, 7.5 or 10° increments when the line array is flown or stacked.

Increased angular resolution is available using Bimodal Incremental Rigging Disc (BIRD) accessories (adding 0.5°, 0.75°, 1.0°, and 1.25° increments between listed angles for unprecedented angular resolution—for use in compression rigging mode only).

Clair Brothers combines amplification, and proprietary DSP processing in permanent or portable racks for all C15 systems. Custom cabling for systems is available as well and can be pre-wired, labeled and delivered in road cases.

EASE GLL files are available upon request for C15.

As with all Clair Brothers speaker products, the C15 is constructed with the finest Baltic birch plywood and finished with a rugged exterior black epoxy mastic finish to withstand the most demanding conditions. The speaker grille is constructed of aerospace-grade 10 gauge perforated aluminum and finished with a commercial grade powder coat finish. The C15 grille also features three unique perforation patterns that optimally perform with respect to the component bandwidth that coincides with it.

Options & Accessories

Proprietary DSP + Amplification Rack Packages

Accessories:

Ground Stack Rigging
Soft Cover and Dolly Transport
Bimodal Incremental Rigging Discs (BIRD)

Custom Colors Available

C15 Line Array



Audio Specifications

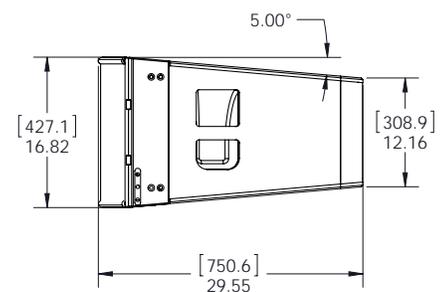
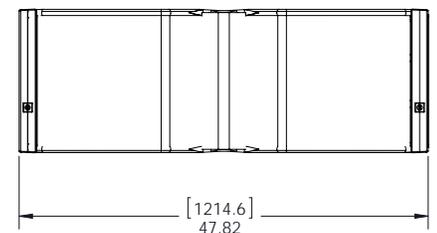
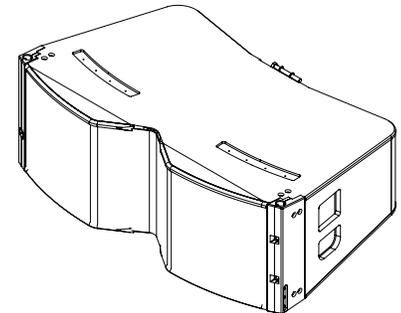
Loudspeaker Type	Line Array Element	Three-Way Active
Frequency Response (+/- 2dB)	Single Cabinet	45Hz–20kHz
Recommended Power Amplifier		2250–4000W @ 8 Ohms
Sensitivity (1 Watt @ 1 Meter)	LF	99 dB SPL
	MF	108 dB SPL
	HF	111 dB SPL
Maximum Output	Peak	149 dB SPL @ 1M Full Bandwidth
	Peak	145 dB SPL @ 1M Bandpass Dependent
Drivers	LF	(2) 15 in. (381mm)
	MF	(4) 6 in. (152.4mm)
	HF	(4) Exit 1.4 in. (35.6mm); Diaphragm 3 in. (76.2mm)
Nominal Impedance	LF	2 x 8 Ohms
	MF	8 Ohms
	HF	8 Ohms
Power Handling	LF	2400 W
	MF	720 W
	HF	320 W
Dispersion		90° H x 10° V
Input Connection		(2) EP-8 Connectors (1 Male, 1 Female)

Mechanical Specifications

Enclosure	Shell	18mm Baltic Birch
	Finish	Black Epoxy Mastic
Grille		Powder Coated Steel, Foam Backed
Dimensions	Front Height	16.82 in. (427.1mm)
	Rear Height	12.16 in. (308.9mm)
	Width	47.82 in. (1214.6mm)
	Depth	29.55 in. (750.6mm)
Weight		225 lbs. (102.0kg)
Shipping Weight		247 lbs. (112.0kg)

Note: All wattage figures are calculated using the rated nominal impedance.

Clair Brothers products are designed to perform optimally by utilizing factory recommended proprietary DSP settings.



C15 EP-8 Pin Configuration			
PIN	USE	PIN	USE
1	Low 1 (-)	5	Mid (-)
2	Low 1 (+)	6	Mid (+)
3	Low 2 (-)	7	High (-)
4	Low 2 (+)	8	High (+)

Architect and Engineer Specifications

The loudspeaker system shall be a three-way active, line array element cabinet. The front of the enclosure shall be fitted with a 10 gauge aerospace grade perforated aluminum grille backed with foam. The system shall have an amplitude response of 45Hz to 20,000 Hz (+/- 2 dB). The loudspeaker system shall be symmetrically loaded with two 15" woofers, four 6" midrange transducers. The low frequency drivers shall be 15" nominal diameter with 4" voice coil diameter capable of handling 1200W of power as per AES Standard. The low frequency drivers shall each be mounted in independent tuned vented chambers. The mid/high frequency section shall be centrally located with each passband (mid frequency and high frequency) coupled to an optimized waveguide. The (4x) midrange drivers shall be 6" nominal diameter capable of 180W of power as per AES Standard. The midrange driver shall be coupled to a planar wavefront phase plug device that loads a non-resonant waveguide throat. The high frequency section shall be centrally located within the enclosure and shall feature (4x) 1.4" exit / 3" voice coil diameter compression drivers that are each capable of 160W of power as per AES standard and are mounted to a waveguide and horn assembly that provides a 90° H X 10° V dispersion. The rigging shall be structurally integrated into the enclosure construction and shall permit the deployment of the cabinet into typical line array configurations. The loudspeaker enclosure shall be 18mm, 13-ply Baltic birch plywood. The cabinet shall be finished using black epoxy mastic finish. The loudspeaker shall be 16.82" H (front), 12.16" H (rear) x 47.82" W x 29.55" D and weigh 225 lbs (102.0kg). The loudspeaker system shall be the Clair Brothers C15 speaker.

Due to constant research, development and improvements all specifications are subject to change without notice.

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