C10-M Line Array

CLAIR BROTHERS



Applications

Entertainment Venues
Auditoriums
Theaters | Cinema
Cruise Ship Venues
Houses of Worship

Features

Three-Way (Bi-Amp)
LF Devices: (2) 10 in (254mm)
MF Device: (1) 3.5 in (89mm)
HF Device: (1)
Exit: 1.4 in (35.6mm)
VC Diam: 1.75 in (44.5mm)
Max Output 146 dB
100°H x 15° V (Standard)
Horizontal Dispersion Options:
70 to 120°H in 10° increments
Clair TrueFit
Integral Bimodal Rigging
Epoxy Mastic Finish
(2) EP-4 Connectors

General Description

The C10-M is the latest innovation in line array technology. It incorporates an advanced transducer technology for both midrange and high frequency reproduction, both of which join a common waveguide. At least two amplifier channels are required, one for low freq., one for mid/hi which is coupled via an internal passive crossover network.

The centrally located mid/high section provides 15° vertical coverage and variable horizontal coverage. The horizontal pattern may be altered to optimize coverage within the context of the application. The horizontal coverage angle may be defined symmetrically or asymmetrically by standard angles between 70° and 120° in 10° increments or may be custom configured with continuously variable Clair TrueFit waveguides. The horn and waveguides are constructed, as all Clair waveguides are, with CNC machined Baltic birch plywood. This is symmetrically flanked by the C10-M low frequency sections. Each 10" low frequency driver is front loaded in its own tuned reflex chamber.

The C10-M speaker cabinet is designed to provide exceptional intelligibility and is capable of a frequency response of 50Hz–20kHz.

The C10-M has one of the most versatile, quick and easy to use rigging systems in the industry today. Each enclosure is equipped with structurally integrated bimodal rigging to allow for quick coverage angle adjustments for multiple venue arrangements.

Rear rigging hardware allows for angle adjustments between 0 and 15 degrees at 1 degree increments. The C10 cabinet shares the same width as the C8 (dual 8" array) and CS118 (single 18" subwoofer) allowing for simple systematic compatibility and minimal adaptation accessories.

As with all Clair Brothers products, the C10-M is constructed of the finest Baltic birch plywood and finished with a rugged exterior epoxy to withstand the most demanding conditions.

The speaker grille is constructed of high-grade 14 gauge perforated steel and finished with a commercial grade powder coat finish.

Options & Accessories

C10-M-100 – Standard 100° H x 15° V Dispersion
C10-M-#° – Optional #° Horizontal Dispersion [70° to 120° H in 10° increments]
C10-i – Install Model (-100 and #° options)
C10-TrueFit – Custom Configured Variable Waveguides
CS118-M – Companion Arrayable Subwoofer
Ground Stack Rigging | Soft Cover | Transport Dolly
Custom Colors Available

Call or e-mail Clair Brothers for more information on available options.
717-665-4000 | e-mail: sales@clairbrothers.com

C10-M Line Array

Audio Specifications

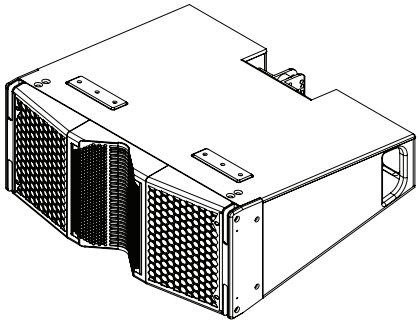
Loudspeaker Type	Line Array Element	Three-Way Active (Bi-Amp with Passive Mid/Hi)
Frequency Response	Single Cabinet	50Hz–20kHz (+/- 3dB) | (-10dB) 54Hz–22kHz
Recommended Power Amplifier		CB-PLM12K44 or CB-D80:4L
Maximum Array[1]		24 C10-M[1]
Compatible Subs		CS118-M, iS118-M, CS218-M
Prediction Software		Clair GLL/AFMG Ease Focus™ Array
Processing, Configuration & System Optimization Software		Lake Controller® with Clair DSP, WiFi System Control
Sensitivity (1 Watt @ 1 Meter)	LF	99.4 dB SPL
	MF/HF	117.6 dB SPL
Maximum Output		146 dB SPL
Drivers	LF	(2) 10 in (254mm)
	MF	(1) 3.5 in (89mm)
	HF	(1) Exit 1.4 in (35.6mm); VC diameter 1.75 in. (44.5mm)
Nominal Impedance	LF	16 Ohms
	MF	16 Ohms } Integrated Passive
	HF	16 Ohms } Crossover Network
Power Handling	Program (AES)	(LF) 1600W; (MF) 150W; (HF) 160W
	Peak	(LF) 3200W; (MF) 500W; (HF) 320W
Dispersion	Standard	100° H x 15° V
	Optional Horizontal	70° – 120° H (10° increments–by changing H waveguide)
	Custom Horizontal	**Clair TrueFit**: Custom Tailored Continuously Variable
Input Connection		(2) EP-4 Connectors (1 Male, 1 Female)

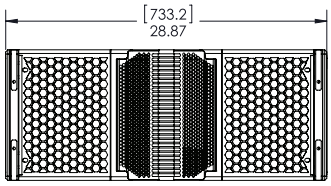
Mechanical Specifications

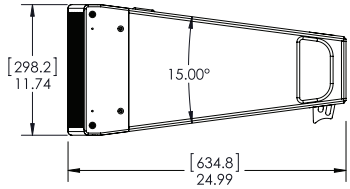
Enclosure	Shell	18mm Baltic Birch
	Finish	Black Epoxy Mastic
Grille		Perforated Steel, Foam Backed
Dimensions	Front Height	11.74 in (298.2mm)
	Width	28.87 in (733.2mm)
	Depth	24.99 in (634.8mm)
Weight		81 lbs (36.7kg)
Shipping Weight		192 lbs (87kg) | [Shipped in Pairs]

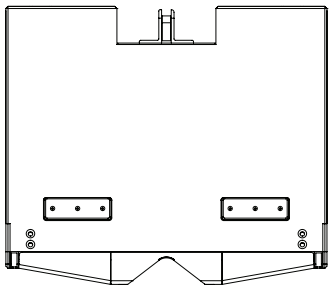
1) Refer to C10 Rigging Manual for Configuration Limits vs. Modes of Use.

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.









C10-M EP-4 Pin Configuration		
PIN	USE	
1	Low 1/2 (−)	16Ω
2	Low 1/2 (+)	
3	Mid/High (−)	16Ω
4	Mid/High (+)	

Architect and Engineer Specifications

The loudspeaker shall be a three-way, vertical line-array element. The system shall have an amplitude response of 50Hz to 20kHz (+/−3 dB). Two amplifier channels shall be required, one for low freq., one for mid/hi wherein the mid/hi section is coupled via an internal passive crossover network. The loudspeaker system shall be symmetrically loaded with two 10" low transducers. The low frequency drivers with 10" nominal diameter shall combined be capable of handling 1600W of power as per AES standard. The low frequency drivers shall each be mounted in independently tuned vented chambers. The mid/high frequency horn section shall be centrally located within the enclosure and shall feature (1) 1.4" exit / 1.75" voice coil diameter compression driver that is capable of 160W (AES) and midrange driver shall be (1) 3.5" nominal diameter capable of 150W (AES) mounted to a waveguide and horn assembly that provides 15° V dispersion. The horizontal directivity system shall consist of a pair of interchangeable acoustic waveguide lenses that permit installation of waveguides between 70° and 120° in 10 degree increments. The rigging shall be integrated to the enclosure structure and shall permit the deployment of the cabinet into typical line array configurations. The loudspeaker enclosure shall be constructed of 18mm / 13-ply Baltic birch plywood. The front of the enclosure shall be fitted with a 14 gauge perforated steel grille backed with foam. The cabinet shall be finished using epoxy mastic finish. The loudspeaker shall be 11.74" H (front) x 24.99" D x 28.87" W and weigh 81 lbs (36.7kg). The loudspeaker system shall be the Clair Brothers C10-M.

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

CLAIR BROTHERS | 1 CLAIR BOULEVARD | MANHEIM, PA 17545 | 717-665-4000 | CLAIRBROTHERS.COM

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