

PRELIMINARY



Applications

Performing Arts Centers
Houses of Worship
Arenas/Auditoriums
Night Clubs
Cruise Ship Venues
A/V Systems Support

Features

Max Output 131 dB SPL
LF Device: (1) 10 in (254mm)
HF Device: (1) 1 in (25.4mm);
Voice Coil Diam: 2.5 in (63.5mm)
(8) Integral Mounting Points
Black Polyurea Finish
(2) EP-4 Connectors
+ (1) 4-Position Terminal Strip

General Description

Clair Brothers 10SPOT loudspeaker has been designed as an ultimate hybrid speaker that combines Clair Curved Array Technology together with the One Series coaxial horn technology, resulting in a unique form factor loudspeaker that occupies little visual space while covering listening areas more coherently than typical conventional point sources. Typical applications include distributed systems, under balcony and delay fill and particularly with live entertainment sources.

The frequency response is 90Hz – 20,000Hz, allowing for use for speech and music reproduction. A stand-out feature of 10SPOT is its innovative horn technology. A coaxial horn arrangement provides constant curvature in the vertical plane with progressively increasing divergence in the horizontal plane resulting in a directivity pattern of 90° at the top and 135° at the bottom, across a 45° vertical coverage angle. The 10" woofer as well as the compression driver both load into the unique combination of two overlaid horns. This technology solves the common problem of horn shadowing with prior coaxial designs. The high mid frequencies of the 10" woofer seamlessly joins with the high frequency horn as it extends toward the mouth. Low frequency

ports discretely flank the horn on both sides, offering low frequency extension to -10dB @ 70Hz that works well on its own as well as with a variety of companion subwoofers, particularly the 12Sx single 12" subwoofer.

Based on its form factor and dispersion characteristics, the 10SPOT is well suited for installation near ceiling to wall intersections in applications, such as hotel/club bar areas. 10SPOT is outfitted with eight (8) integral M10 mounting points, each with 1.5 thread, these are the attachment points for an installation mounting bracket (see Options).

Please contact Clair Brothers for more information regarding coverage area planning and simulation.

Options & Accessories

10SP-TB – Top Mount Tilt Bracket

10SP-MB – Yoke Style Mounting Bracket

12Sx Companion Subwoofer

[Optional configuration with Clair/Powersoft amp + DSP]

Custom Rigging

Custom Colors Available

10SPOT

Passive
Coaxial/Point Source

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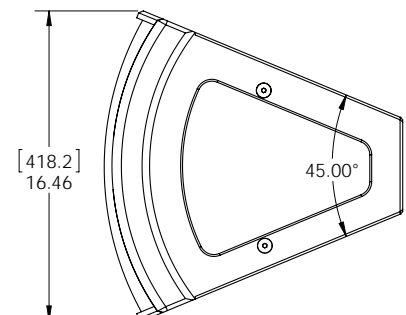
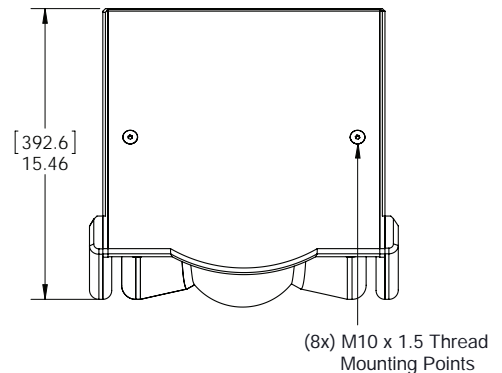
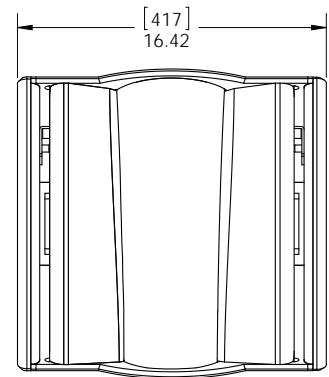
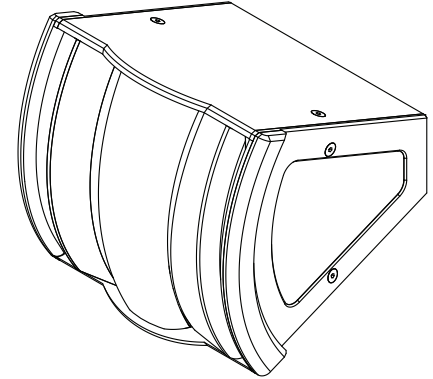
Audio Specifications

Loudspeaker Type	Passive	Coaxial Point Source
Frequency Response		90Hz–20kHz (+/- 2dB) (-10dB Point) 70Hz
Recommended Power Amplifier		CB-PLM5K44 or CB-D40:4L
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)		103 dB SPL
Maximum Output ¹	Peak	131 dB SPL
Driver	LF	(1) 10 in (254mm); VC diam. 2.5 in (63.5mm)
	HF	(1) VC diam. 2.5 in (63.5mm); Exit 1 in (25.4 mm)
Nominal Impedance	LF	8 Ohms
	HF	16 Ohms
Power Handling	Program	300W
	Peak	600W
Dispersion	Asymmetric Horizontal	90° H at Top, 135° H at Bottom
	Vertical	45° V
Input Connection	Standard	(2) EP-4 Connectors (1 Male, 1 Female) + (1) 4-Position Terminal Strip

Mechanical Specifications

Enclosure	Shell	12mm & 18mm Baltic Birch
	Finish	Black Polyurea Coating
Rigging	Integral Rigging Points	(8) M10 x 1.5 Thread
Grille		Powder Coated Perforated Steel, Foam Backed
Dimensions	Front Height	16.46 in (418.2mm)
	Width	16.42 in (417mm)
	Depth	15.46 in (392.6mm)
Weight		35 lbs (15.9kg)
Shipping Weight		TBD

1) Measured @ 1 meter in free space with 12dB crest factor pink noise, unweighted.
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.



Architect and Engineer Specifications

The loudspeaker system shall be a two-way passive, coaxial point source loudspeaker cabinet featuring a total of (2) drivers. The front of the enclosure shall be fitted with a perforated, powder coated steel grille backed with foam. The system shall have an amplitude response of 90Hz to 20,000Hz (+/- 2 dB). The loudspeaker system shall be loaded with one woofer; this low frequency driver shall be 10" nominal diameter with 2.5" voice coil diameter capable of handling 300W of power as per AES Standard. The high frequency section shall consist of a 2.5" voice coil diameter compression driver mounted coaxially on a smoothly transitioning 90-135°H x 45°V horn. The high frequency horn shall provide complete pattern control over the bandwidth. The high frequency horn shall be a constant directivity conic profile. The driver is capable of handling 50 watts (1 kHz to 10 kHz) of pink noise with a 6 dB crest factor for two hours (as per AES-1984 and ANSI S4.26-1984 standards). The enclosure shall be trapezoidal in geometry, constructed with 12mm and 18mm, 11-ply Baltic birch and covered with a durable black polyurea coating. The dimensions shall be 16.46" high, 16.42" wide, and 15.46" deep. The enclosure shall incorporate (8) integral mounting points, each with M10 x 1.5 thread for mounting bracket attachment. The passive system weight shall be 35 lbs (15.9kg). The loudspeaker system shall be the Clair Brothers 10SPOT loudspeaker.

10SPOT Passive Pin Configuration	
EP-4 PIN	USE
1 & 3	(-)
2 & 4	(+)
Terminal Strip	USE
Black	Low (-)
Black	High (-)
White	High (+)
Red	Low (+)

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

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