



emacoustics

TECHNICAL DATA SHEET

HALO-C

COMPACT 2-WAY PASSIVE LINE ARRAY ELEMENT

The HALO Compact system is designed to fulfil requirements for a wide range of professional audio applications. At 17kg (37.4lbs) in weight and only 492mm wide (19.4"), HALO Compact is a truly compact solution but, as it is capable of continuous sound pressure levels in excess of 120dB, it is an ideal solution for small to medium theatres, houses of worship, conferences and corporate A/V, and even small to medium-scale live sound reinforcement. Any application where size and weight are critical concerns, yet high SPLs are required, is a perfect fit for the HALO Compact system.

FEATURES AND BENEFITS

- Signature EM Acoustics passive crossover for unprecedented frequency and phase response
- Extremely consistent horizontal dispersion pattern for predictable results in use
- Small enclosure footprint and low weight ensure discreet system that is easy to rig
- High power-to-size ratio
- Passive design minimises processing requirement, and reduces amplifier channel count
- Lightweight plywood enclosure offers significantly less panel flexure than plastic designs
- Intuitive, safe rigging system for both flown and groundstacked systems

APPLICATIONS

- Small-to-medium theatre and touring events
- Small-to-medium live sound reinforcement
- Houses of worship
- Conference and corporate A/V
- Theme parks

HALO Compact is a development from the original HALO system, keeping the same breathtaking sonic performance that can only be achieved by using a truly plane-wave AMT high frequency drive unit. A wider 95-degree horizontal coverage allows greater flexibility whilst in use, and the use of a more powerful 8" (203mm) low frequency drive unit adds more body to the overall sonic performance, as well as higher SPL capability than the original HALO system. Arrays can be assembled from three elements up to a maximum of 24, whilst still retaining a 10:1 safety factor. The extremely flexible rigging system allows the user to cope with a wide variety of scenarios, both in flown and ground-stacked configurations.

HALO Compact exhibits extremely flat frequency and phase responses and a wavefront that is truly plane, as opposed to a manipulation of a spherical wavefront. The end result is a system that remains intelligible over much greater distances than users have come to expect from conventional compression-driver based designs. Such is the uniformity of frequency and phase response, as well as dispersion in both horizontal and vertical



planes, HALO Compact elements can even be used singly as front fills or under-balcony fills where precise vertical directivity is essential. When used as complete systems, HALO Compact elements partner with the HALO-CS flyable subwoofer, and the FG-HALO-C flying grid to suspend the system. For additional low frequency support S-215 or S-18 subwoofers or, for larger systems, the S-218 subwoofer can be used to underpin the arrays.

HALO Compact contains a 197mm (7.8") AMT high frequency drive unit on an EM Acoustics-designed 95-degree dispersion waveguide. This HF device is linked via a signature EM Acoustics passive crossover to a high power neodymium 8" (203mm) LF drive unit. Exact drive unit placement, coupled with the crossover topology and waveguide design, extends the horizontal coverage pattern to below 1kHz. The true plane wave output of the AMT drive unit and waveguide combination yields a precise, well-behaved vertical pattern, allowing seamless array integration and minimising destructive interference between adjacent elements.

The HALO Compact enclosure is constructed from premium 12mm and 18mm (1/2" and 3/4") multi-laminate birch plywood that has been rebated, screwed and glued together. Intelligent bracing design minimises panel flexure, thereby reducing unwanted resonance whilst still keeping the enclosure weight low. The flying hardware is manufactured from ultra-high-tensile Domex steel, finished in a polyester powder coat with aircraft-grade ball lock pins to ensure swift, yet safe array assembly. A perforated stainless steel grille backed with acoustically transparent black fabric finishes the enclosure with a sleek but stylish appearance. Two Neutrik® speakON™ NLT4 tour-grade connectors are provided on the rear of the enclosure for input and link through.

The enclosure is finished in impact and weather resistant black or white textured polyurethane as standard, however RAL colour matching and enhanced weather protected outdoor options are also available.

HALO-C requires a single amplifier channel, and the use of external DSP for system protection (high pass filters and limiters) is recommended - as such an efficient solution is one of EM Acoustics' range of Advanced System Amplifiers. Alternative DSP-enabled amplifiers can also be used, or conventional amplifiers with external processing - suitable DSP settings are provided on the EM Acoustics website for this purpose. HALO-C requires a single amplifier channel that is capable of delivering 600-800W RMS into an 8-ohm load.

TECHNICAL SPECIFICATIONS

ENCLOSURE TYPE:

DIMENSIONS (HxWxD)

NET/SHIPPING WEIGHT:

FREQUENCY RESPONSE¹:

SENSITIVITY²:

DISPERSION³:

DRIVE UNITS:

LOUDSPEAKERS PER AMPLIFIER (maximum for full loudspeaker SPL)

LOUDSPEAKERS PER AMPLIFIER (recommended absolute maximum)⁴

POWER HANDLING:

MAXIMUM SPL⁴:

NOMINAL IMPEDANCE:

CROSSOVER:

CONNECTORS:

ENCLOSURE:

RIGGING & HARDWARE:

GRILLE:

OPTIONS:

ACCESSORIES:

Two-way passive compact line array element

216 (8.5) x 492 (19.4) x 400 (15.7) mm/(ins) - enclosure only

252 (9.9) x 524 (20.6) x 400 (15.7) mm/(ins) - extremities of rigging/pins

17/19kg (37.4/41.8lbs)

75Hz – 20kHz ±3dB

94dB

95° horizontal, vertical dependent on array configuration

8" (203mm) neodymium LF cone drive unit

7.8" (197mm) AMT HF drive unit

DQ6: 2 per channel, DQ10: 4 per channel, DQ20: 4 per channel

Di06: 1 per channel, Di10: 2 per channel, Di20: 3 per channel

DQ6: 3 per channel, DQ10: 4 per channel, DQ20: 4 per channel

Di06: 1 per channel, Di10: 2 per channel, Di20: 3 per channel

325W RMS, 650W program

124dB continuous, 130dB peak

8 ohms

Asymmetric internal passive

2 x Neutrik® speakON™ NLT4

12mm (1/2") & 18mm (3/4") multi-laminate Birch plywood – rebated, screwed & glued

Finished in impact and weather resistant black or white polyurethane

Four-point integral flying system, tested to 24 elements at 10:1 safety factor secured with aircraft-grade ball-lock pins splay angles 0, 0.5, 1, 1.5 and 2-15

Perforated stainless steel backed with acoustically transparent fabric

Custom Colours, enhanced weather protection (OD model)

FG-HALO-C master flying grid

FG-HALO-C-EXT extension bar

SM-HALO-C simple mounting frame

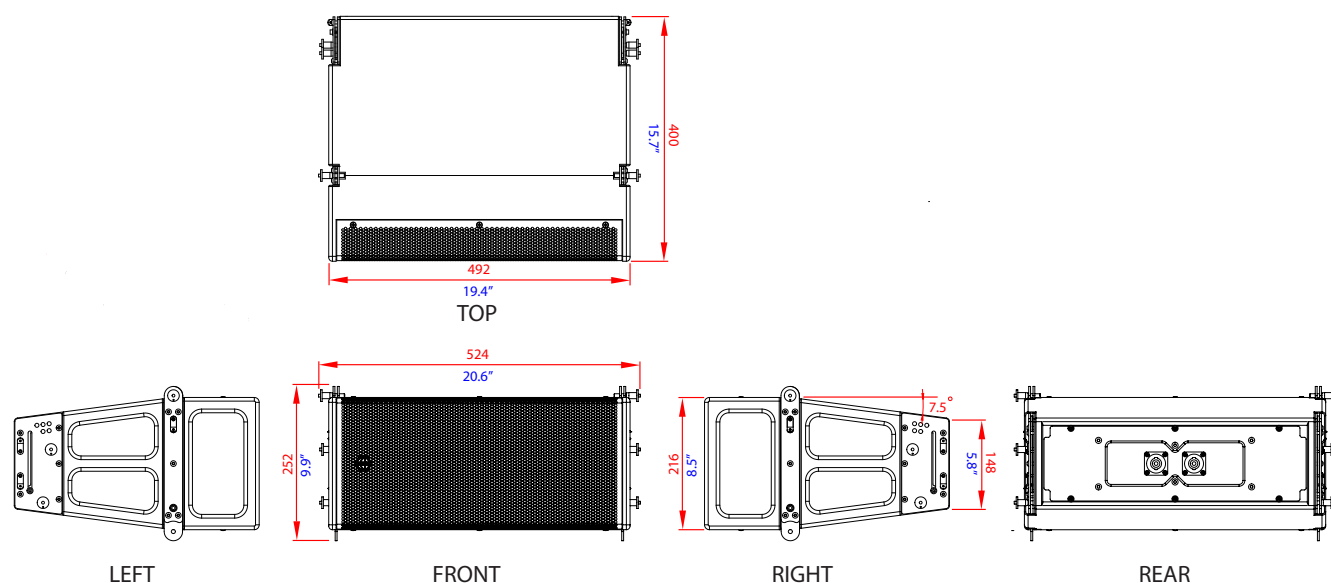
PB-HALO-C pull-back frame

CASE-HALO-C four element touring flightcase

NOTES ON MEASUREMENT CONDITIONS:

¹Measured on-axis at 2m in an anechoic environment and referenced to 1m. ² Measured in half space at 2m with 4W sine wave input and referenced to 1m. ³Nominal dispersion, measured in an anechoic environment and averaged over stated bandwidth. ⁴These loudspeaker quantities are the recommended maximum, and will not drive the loudspeaker to full output. ⁵Calculated and verified by subjective listening test of familiar program material.

ENGINEERING DRAWING



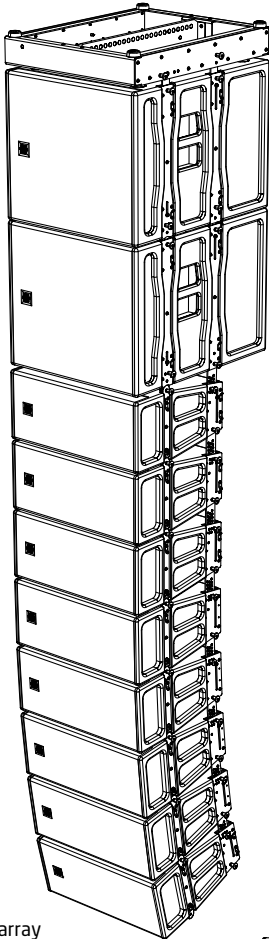
ENCLOSURE OPTIONS

HALO-C loudspeakers are available as standard in black or white impact and weather resistant polyurethane. All other colours are treated as custom; extended lead times and set up costs apply. HALO-C is already inherently weather resistant, with a stainless steel grille and IP54 rated connectors. For permanent outdoor use, alternative connector options can be specified as well as cabinet modifications to customer requirements. Please contact your EM Acoustics representative for details.

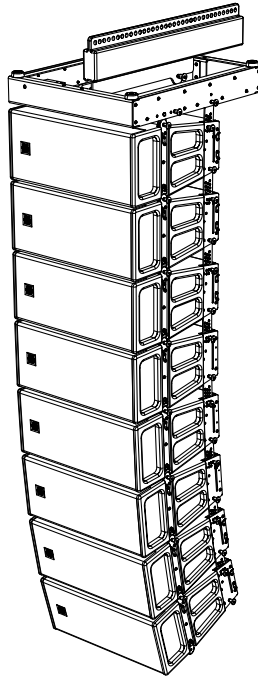


RIGGING EXAMPLES

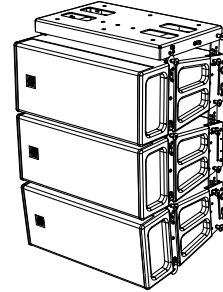
A wide variety of accessories are available for rigging HALO-C enclosures both in flown and groundstacked configurations. Please consult the separate rigging hardware datasheet for more information on these different options.



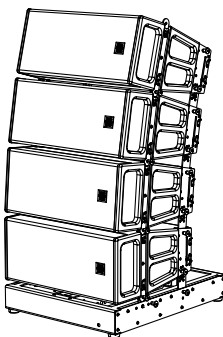
Flown array
with FG-HALO-C



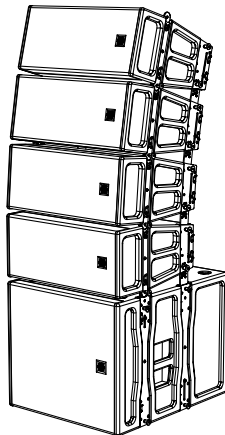
Flown array with FG-HALO-C
and Extension Bar



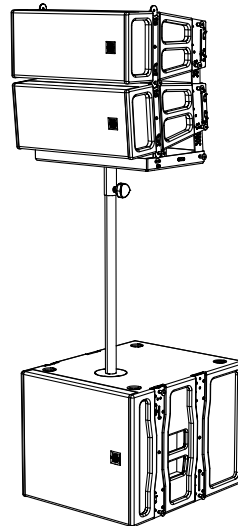
Flown array with SM-HALO-C



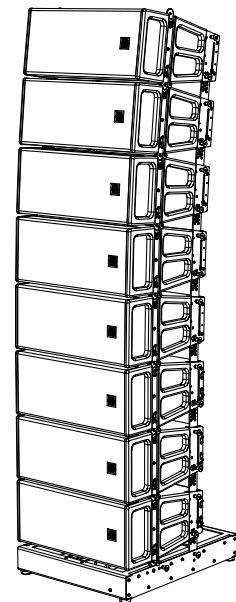
Ground stacked array
with FG-HALO-C



Ground stacked array
with HALO-CS



Pole mount array
with SM-HALO-C
on HALO-CS



Ground stacked array
with FG-HALO-C