

DS-108A

Dynamics

series



FEATURES

- » Bi-amplified 2-way vented loudspeaker system
- » 8" cone speaker
- » 1" compression driver
- » 150 W + 50 W power amplifier
- » Polypropylene enclosure

SPECIFICATIONS

| | |
|--|--|
| Nominal Low + High Frequency Amplifier: | 150 W + 50 W |
| Input Type: | Balanced Differential for Line and Mic |
| Input Impedance: | Line: 20 k Ω ; Mic: 2 k Ω |
| Sensitivity: | Line: 0.75 V (-0.28 dBu) Mic: [3 mV, 150 mV] (-48 dBu, -14 dBu) |
| On-axis Electro-Acoustical Freq. Range^F: | 52 Hz - 19 kHz |
| Rated Maximum Peak SPL at 1 meter: | 120 dB |
| HF Horn Coverage Angles^{HF}: | 90° Horizontal x 45° Vertical (nominal) |
| Average Beamwidths^B: | 110° Horizontal 100° Vertical |
| Speech Coverage Angles^C: | 115° Horizontal x 110° Vertical |
| Enclosure Material: | Mineral loaded polypropylene |
| Color: | Anthracite grey |
| Transducers/Replacement Parts: | LF: 8B/8B; HF: M-3/GM M-5 |
| Connectors: | XLR for MIC input. Combo 1/4" phone + XLR for LINE INPUT, 1/4" phone jack for LINE OUT |
| AC Power Requirements: | AC INPUT: Male IEC 115 V, 50 Hz/60 Hz; 230 V, 50 Hz/60 Hz |
| Dimensions (H x W x D): | 45 x 30 x 30 cm (18 x 12 x 12 in) |
| Weight: | 12.2 kg (27 lbs) |
| Shipping Weight: | 13.9 kg (30.5 lbs) |
| Accessories (optional): | TRD-2 adjustable tripod ANL-1, 4-piece M8 eyebolt/carabiner set AX-M wall mounting bracket |

^F -10 dB, Half space anechoic.

^{HF} -6 dB, ^B -6 dB angle, average of one-third octave band measures.

^C There is currently no standard method of averaging the beamwidth with frequency characteristics into a single meaningful figure, which impedes comparisons across manufacturers and very often even product lines. This, our own, criterion weighs the -6 dB coverage angles from one-octave bands according to their contribution to speech intelligibility.

One and one-third octave bands comply to ANSI S1.11-1986.

INTRODUCTION

The DS-108A is a versatile bi-amplified two-way vented loudspeaker system.

APPLICATIONS

The DS-108A is an ideal system for solo musicians and keyboard based groups providing a complete sound reinforcement solution in a single package. PA applications such as recitals, conferences, receptions, or any event that requires a system that is easy to use and transport, will benefit from the DS-108A.

DESCRIPTION

The system incorporates a 150 W amplifier for the low frequency transducer and a 50 W amplifier for the high frequency driver.

The DS-108A has a built-in two channel mixer with a microphone input and a line input with independent level controls. A master volume control is also provided.

The low end utilizes a high efficiency 8" low frequency speaker with 1.5" voice coil and a cast aluminium basket. The high end makes use of a 1" exit compression driver with 1.75" titanium diaphragm, coupled to a constant directivity horn that is integral to the enclosure baffle.

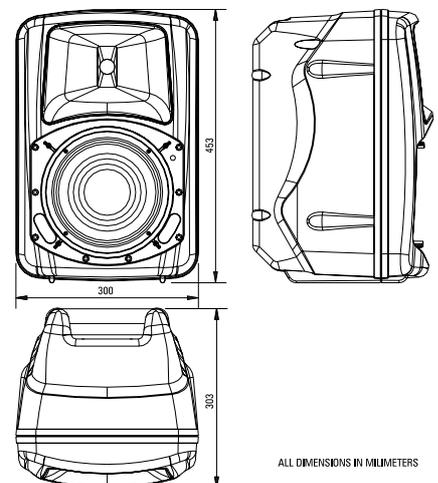
Full use of high pressure injection moulding techniques has achieved a mineral loaded polypropylene cabinet of a very high density. Internal design provides extensive wall reinforcing for minimum vibration. An oversized handle facilitates carrying.

For added resistance, a rugged steel grille protects the low frequency transducer.

MOUNTING

Three M8 rigging points are built into the bottom of the enclosure, allowing for flying and mounting options. A 35 mm socket is built-in for tripod use.

A range of optional accessories is available: mounting bracket, tripod and hanging rings provide flexible mounting options.



ALL DIMENSIONS IN MILLIMETERS



FREQUENCY RESPONSE

Figure 1 shows the frequency response at 1 m of a unit radiating to a half space anechoic environment and driven by a -18 dBm swept sine signal.

DISTORTION

Figure 2 shows the Second Harmonic Distortion (grey) and Third Harmonic Distortion (dotted) curves for a unit driven at 10% of its nominal power handling rating.

BEAMWIDTH

Figure 3 shows the -3, -6 and -10 dB horizontal (solid) and vertical (dashed) beamwidth with frequency curves. -6 dB ones are shown with thicker traces for clarity.

AXIAL DIRECTIVITY $Q(R_0)$ AND D_I

Figure 4 shows the above characteristics with frequency. Thin continuous and dashed lines show partial horizontal and vertical, respectively, characteristics.

POLAR RESPONSE

Figure 5 shows the one octave band horizontal (solid) and vertical (dashed) polars for the indicated frequencies. Full scale is 50 dB, 5 dB per division.

NOTES. 1.Frequency response: referred to 1 m; low end obtained through the use of near field techniques; one-third octave smoothed for correlation with human hearing. 3.Harmonic distortion components are not plotted beyond 20 kHz; near-field techniques used. 4.Directivity characteristics plotted with respect to frequency are the average within the one-third octave bands of center frequencies noted by the marks at the bottom of the graphs, but are joined up for display purposes. All other characteristics plotted vs. frequency use 1/24th octave resolution. Regions of less than 1 dB below goal level and sharp notches may be ignored when calculating beamwidths. 5.Directivity factor and index were computed from two degree resolution vertical and horizontal polars using sinusoidal weighting. 6.Polars were acquired by placing the unit on a computer controlled turntable inside our anechoic chamber. Measurement distance was 4 m.

Product improvement through research and development is a continuous process at D.A.S. Audio. All specifications subject to change without notice.

