DS-108 Dynamics series

FEATURES

- » 2-way vented loudspeaker system
- » 8" cone speaker
- » 1" compression driver
- » 150 W power handling
- » Polypropylene enclosure

SPECIFICATIONS

RMS (Average) Power Handling[R]:	150 W
Program Power Handling[P]:	300 W
Peak Power Handling[K]:	600 W
On-axis Frequency Range[F]:	52 Hz - 25 kHz
Nominal Impedance:	8 Ω
Minimum Impedance[I]:	6.1 Ω (at 250 Hz)
On-axis Sensitivity 1W / 1 m[S]:	93 dB SPL
Rated Peak SPL at Full Power:	121 dB
HF Horn Coverage Angles[HF]:	90° Horizontal x 45° Vertical (nominal)
Average Beamwidths[B]:	105° Horizontal
(500 Hz to 8 kHz)	90° Vertical
Speech Coverage Angles[C]:	110° Horizontal x 100° Vertical
Enclosure Material:	High density mineral loaded polypropylene
Colour:	Anthracite grey
Transducers/Replacement Parts:	Low: 8B/GM 8B
	High: M-3/GM M-5
Connector:	2 paralleled NL4 Speakon, wired to ±1
Dimensions (H x W x D):	45 x 30 x 30 cm (18 x 12 x 12 in)
Weight:	9.4 kg (21.5 lbs)
Shipping Weight:	11 kg (24 lbs)
Accessories (optional):	TRD-2 adjustable tripod
	ANL-1, 4-piece M8 eyebolt/carabiner set
	AX-108, AX-M wall mounting brackets

[R] Based on a 2 hour test using a 6 dB crest factor pink noise signal bandlimited according to IEC 268-1 (1985). All power ratings are referred to the nominal impedance.
[P] Conventionally 3 dB higher than the RMS measure, although this already utilizes a program signal.
[K] Corresponds to the signal crests for the test described in[R].
[F] As per IEC 268-5 (1989), re. a one octave band centred at 4 kHz. Half space anechoic.
[I] In practice cable and connector impedance has to be added to all impedance values.
[S] As per IEC 268-5 (1989), for the 4k Hz one octave band.
[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 D.A.S. DS-108 is a versatile 2-way vented loudspeaker system.

APPLICATIONS

Intended for use in small to medium scale fixed and portable sound reinforcement, musical instruments, clubs. Larger scale applications can benefit from its compact size and use them as auxiliary systems for applications such as underbalcony, frontfill and delayed fill type applications.

DESCRIPTION

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 2" titanium diaphragm, coupled to a constant directivity horn that is integral to the enclosure baffle.

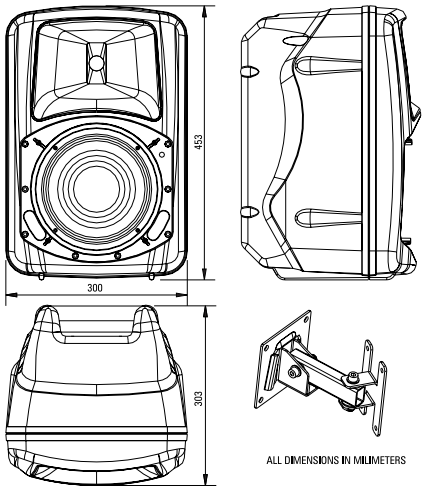
Full use of high pressure injection moulding techniques has achieved a mineral loaded polypropylene cabinet of a very high density. Internal design provides extensive wall reinforcing for minimum vibration. An oversized handle facilitates carrying.

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

MOUNTING

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

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



ALL DIMENSIONS IN MILIMETERS

D.A.S. SOUND PRODUCTS

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 1 W (2.83 V) swept sine signal.

Impedance
Figure 2 shows impedance with frequency.

Distortion
Figure 3 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 4 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_θ) and Di
Figure 5 shows the above characteristics with frequency. Thin continuous and dashed lines show partial horizontal and vertical, respectively, characteristics.

Polar Response
Figure 6 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. 2.In practice, cable and connector impedance need to be added. 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 centre 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.

FIG. 1

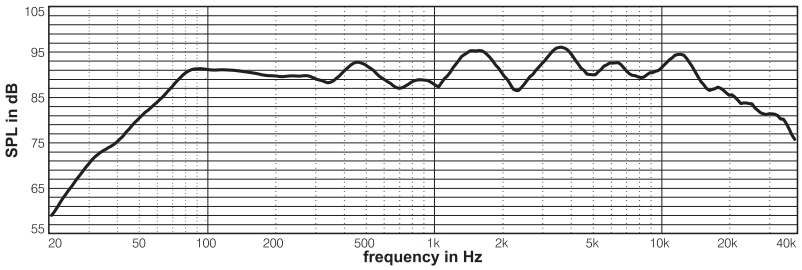


FIG. 2

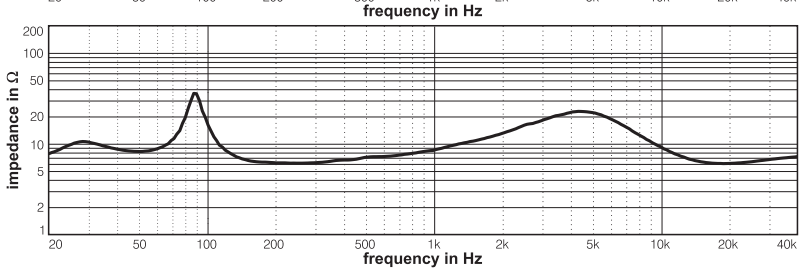


FIG. 3

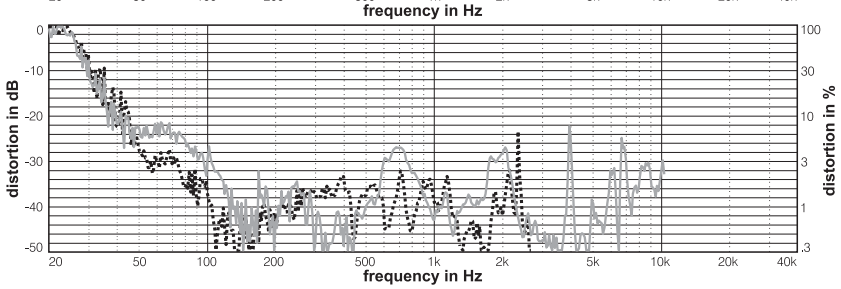


FIG. 4

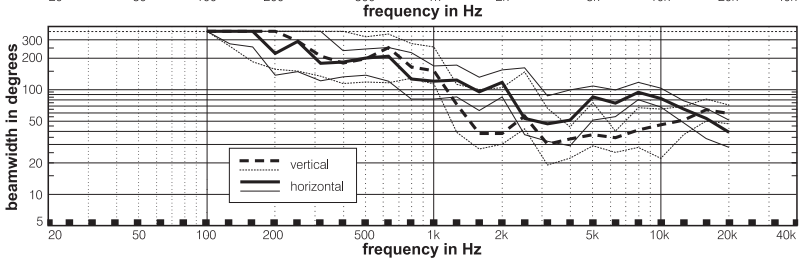


FIG. 5

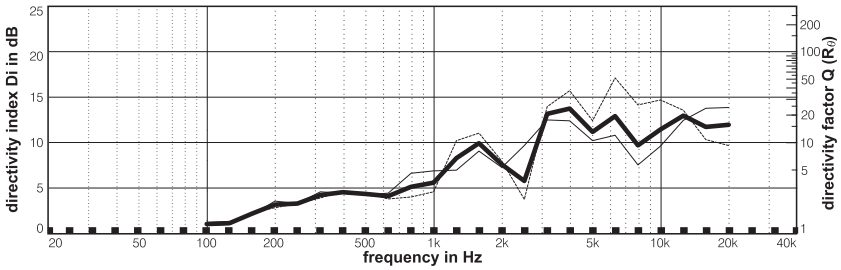
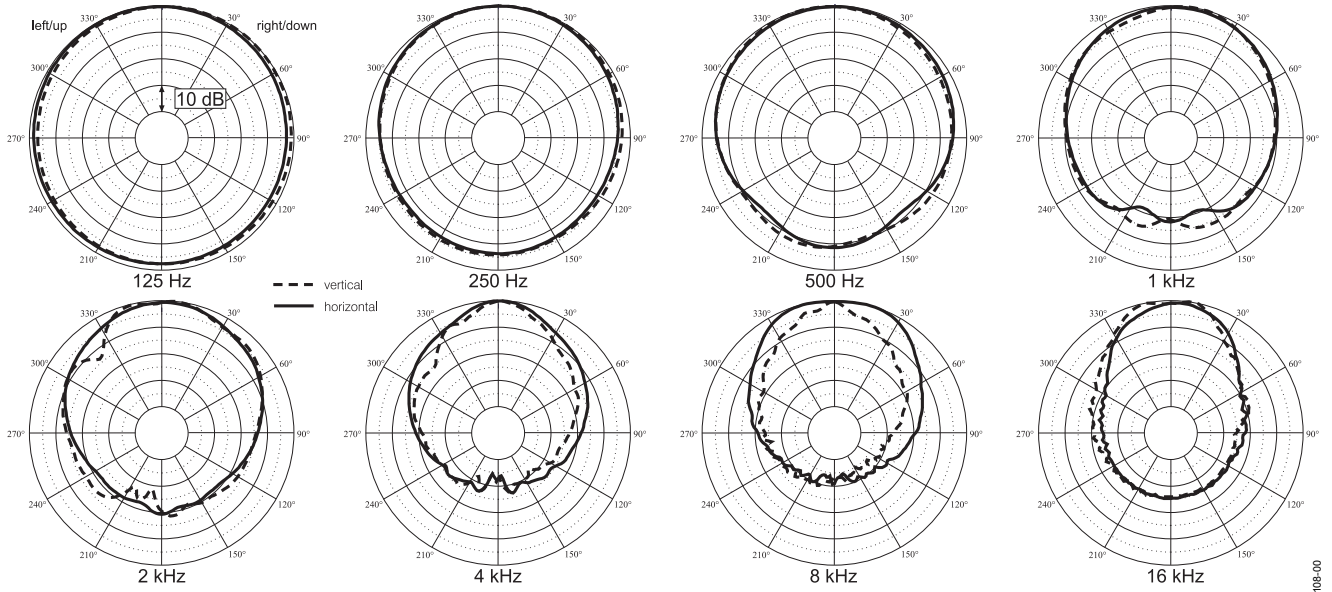


FIG. 6



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