

Sub-218

Reference series



FEATURES

- » Direct radiator subwoofer
- » 2 x 18" low frequency speakers
- » 1200 W power handling
- » Rugged steel grille

SPECIFICATIONS

| | |
|--|---|
| RMS (Average) Power Handling^R: | 1200 W |
| Program Power Handling^P: | 2400 W |
| Peak Power Handling^K: | 4800 W |
| On-axis Frequency Range^F: | 35 Hz - 3.3 kHz |
| Usable Frequency Range: | 35 Hz - 1 kHz |
| Nominal Impedance: | 4 Ω |
| Minimum Impedance^L: | 3.8 Ω (at 44 Hz) |
| On-axis Sensitivity 1W / 1 m^S: | 101 dB SPL |
| Rated Peak SPL at Full Power: | 138 dB SPL at 1m |
| Nominal -6 dB Beamwidths^B: | 360° Horizontal |
| | 360° Vertical |
| Enclosure Material: | Wisa® Birch plywood |
| Finish: | Black catalyzed polyurethane paint |
| Transducers/Replacement Parts: | G-45/GM G-45 |
| Connector: | 2 paralleled NL4 Speakon, wired to ±1 |
| Dimensions (H x W x D): | 112 x 55 x 48 cm (44 x 21.7 x 18.9 in) |
| Weight: | 59 kg (130 lbs) |
| Shipping Weight: | 63.8 kg (140.4 lbs) |

INTRODUCTION

The D.A.S. Sub-218 is a bass-reflex subwoofer system for use in active systems where bass reinforcement is required.

APPLICATIONS

The Sub-218 is designed for applications where high sound pressure levels of bass frequencies are required such as sound reinforcement in dance clubs.

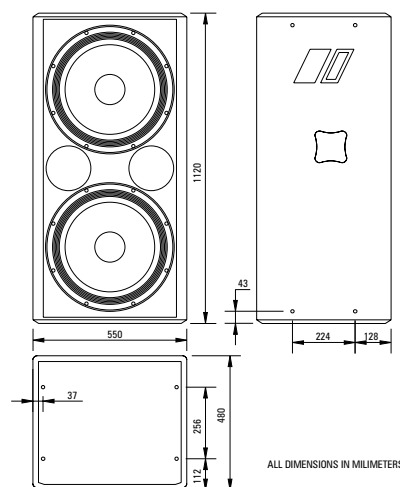
DESCRIPTION

The Sub-218 houses two D.A.S. G-45 18" cone transducer configured as a direct radiators. This long excursion driver features a 4" edgewound coil, massive magnet structure and carefully engineered cooling scheme, resulting in high power handling and low power compression.

The ultra-compact enclosure is manufactured from Wisa® Birch plywood and is finished with a hard wearing catalyzed polyurethane paint that permits color adaptations and provides weather resistance. 16 integrated rigging points that accept 10M forged steel eyebolts make suspension in either the horizontal or vertical positions safe and simple. Loudspeaker components are protected by a heavy-duty steel grille sealed against corrosion using a polyamide powder coat finish.

PLACEMENT

As with any bass unit, the Sub-218's low frequency output will benefit from placement against walls and/or floors.



ALL DIMENSIONS IN MILLIMETERS

^R Corresponds to the AES power handling rating for the component, based on a 2 hour test using a 6 dB crest factor bandlimited pink noise signal.

^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 500 Hz. Half space anechoic.

^L In practice cable and connector impedance has to be added to all impedance values.

^S For the 250 Hz one octave band.

^B Average of one-third octave band measures.

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

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 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 $Q(R_0)$ AND D_1

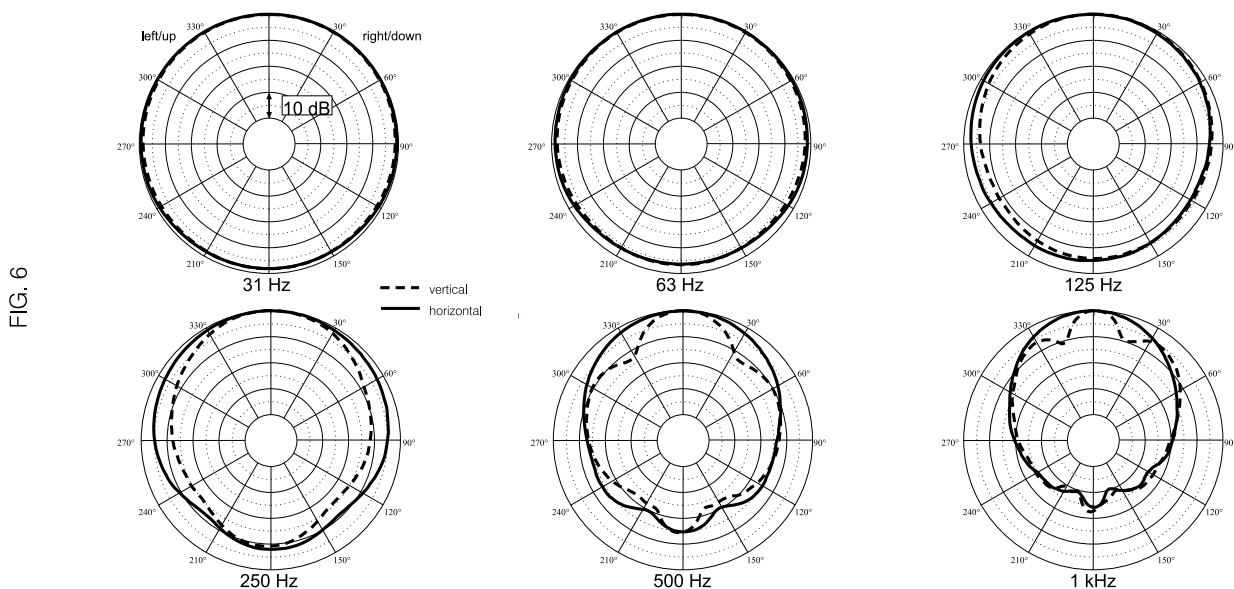
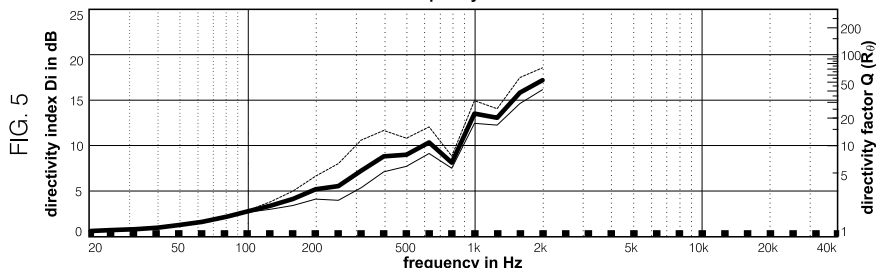
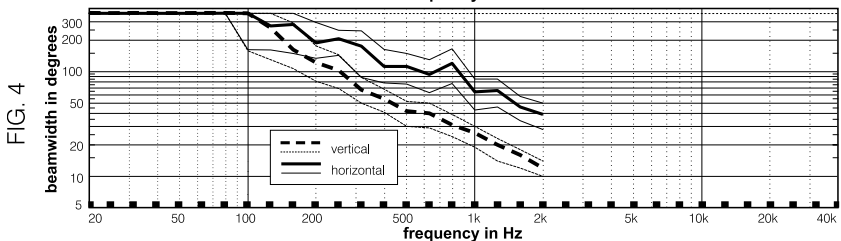
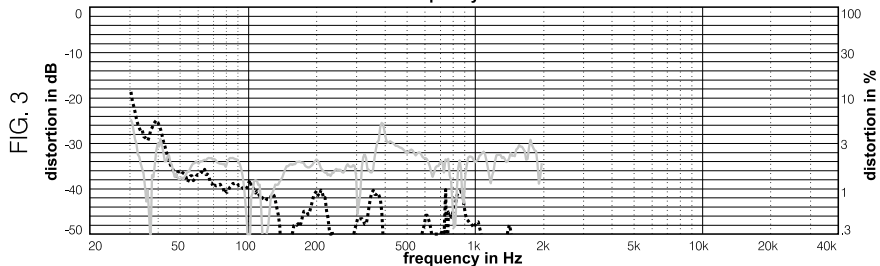
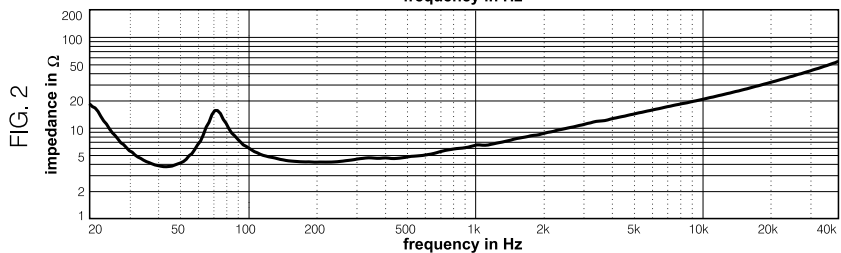
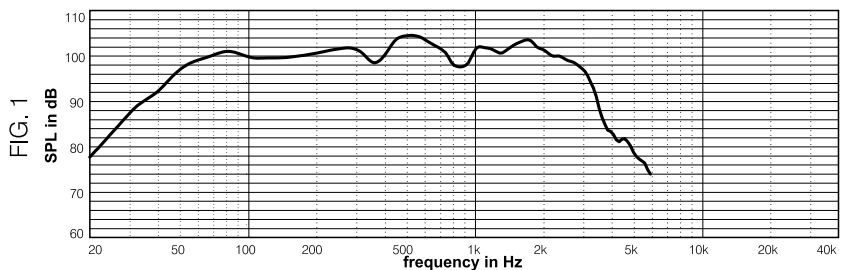
Figure 5 shows the above characteristics with frequency. Thin continuous and dashed lines show partial horizontal and vertical, respectively, characteristics.

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.Low frequency 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. Interpolation was used below 100 Hz. 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.



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