SM-12A Stage monitor series

Introduction

The D.A.S. SM-12A is high efficiency 2-way vented stage monitor.

Description

The low frequency section utilizes a high efficiency 12" low frequency speaker with a 3" voice coil using a combination of pole piece and direct convection cooling to provide high power handling and low power compression.

The high frequency section makes use of a Neodimium magnet 1.5" exit compression driver with 3" titanium diaphragm, with a narrow coverage horn, providing excellent feedback rejection.

The system incorporates a 500 W class D switching amplifier for the low-frequency section and a 100W class AB amplifier for the high frequency driver.

The enclosure is manufactured from Wisa® Birch plywood and is finished with a durable polyurethane paint. The unit has a fabric covered steel grille to protect the loudspeaker components. The covering is resistant to wear and tear, provides protection from dust and dirt, and is both acoustically transparent and flame retardant.

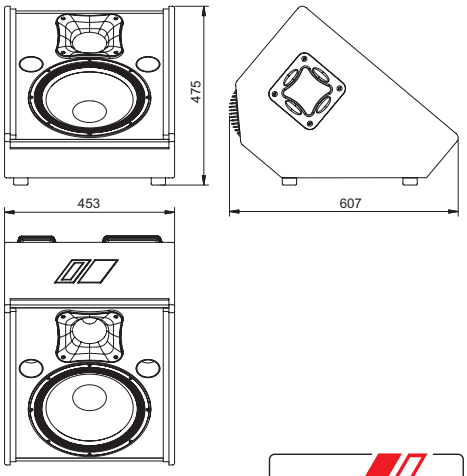
Features

- **Biamplified 2-way system**
- **500 W class D low frequency power amplifier**
- **100 W high frequency power amplifier**
- **12" speaker**
- **3" diaphragm Neodymium compression driver**

Specifications

Low Frequency Power Amplifier[R]:	500 W_{RMS}
High Frequency Power Amplifier[R]:	100 W_{RMS}
Input Type:	Balanced Differential
Input Impedance:	Line: 20 kΩ
Sensitivity:	Line: 1.23 V (+4 dBu)
On-axis Frequency Range:	52 Hz - 17 kHz
Maximum Peak SPL at 1 meter:	133 dB
Nominal -6 dB Beamwidths:	50º Horizontal 50º Vertical
Enclosure Material:	Wisa® Birch Plywood
Finish:	Black Polyurethane Paint
Transducers/Replacement Parts:	LF: 12 L/GM 12P HF: M-10N/GM M-10
Connectors:	INPUT: Female XLR LOOP THRU: Male XLR AC INPUT: PowerCon NAC 3
AC Power Requirements:	115 V, 50 Hz/60 Hz 230 V, 50 Hz/60 Hz
Dimensions (H x W x D):	47x45x59 cm (18.5x17.7x23.3 in)
Weight:	29.2 kg (64.3 lbs)

[R] 4 ohm load @ 1% THD.



D.A.S. SOUND PRODUCTS

SM-12A

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 swept sine wave signal (-19 dBu input).

Distortion

Figure 2 shows the Second Harmonic Distortion (grey) and Third Harmonic Distortion (dotted) curves for a unit driven by a swept sine wave signal (-9 dBu input).

Off axis frequency response

Figure 3 shows normalized horizontal off axis frequency response. 5º steps.
Figure 4 shows normalized vertical down off axis frequency response. 5º steps.

Polar Response

Figure 5 shows the 1/3 octave band horizontal (left) and vertical (right) polars for the indicated frequencies. Full scale is 30 dB, 6 dB per division.

FIG. 1

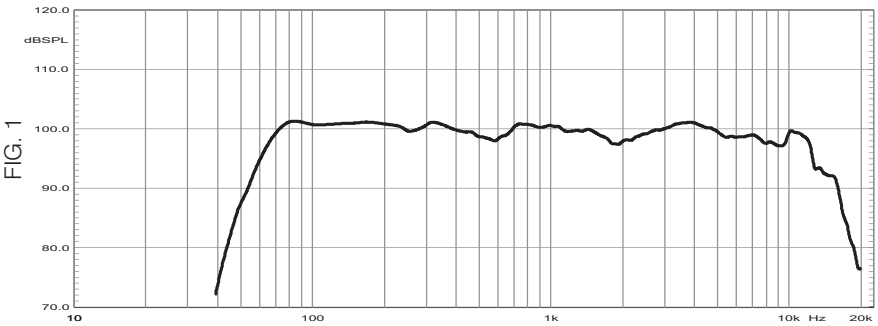


FIG. 2

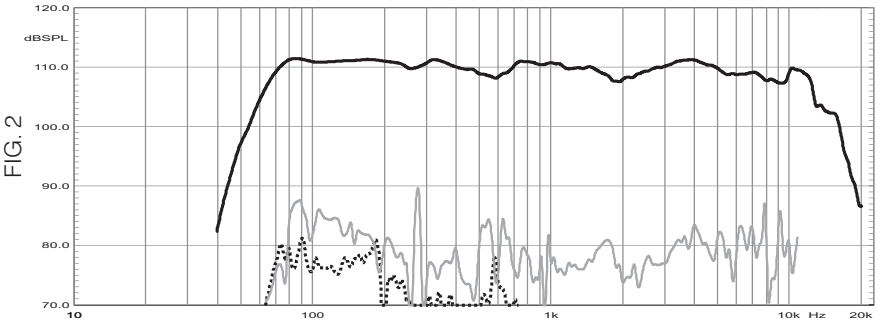


FIG. 3

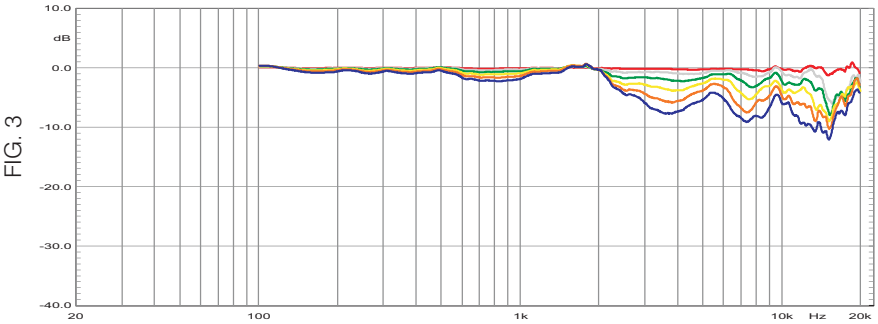
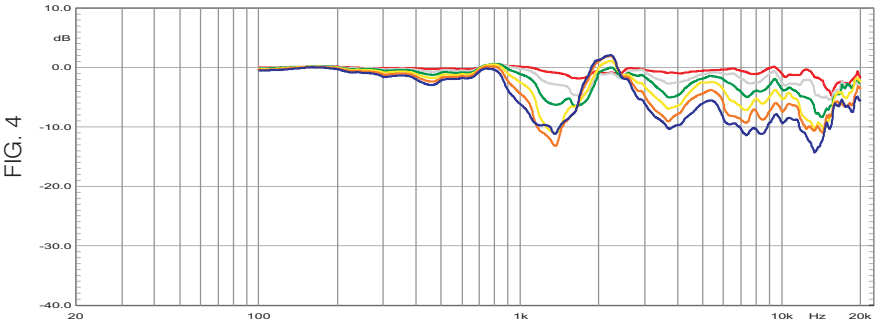


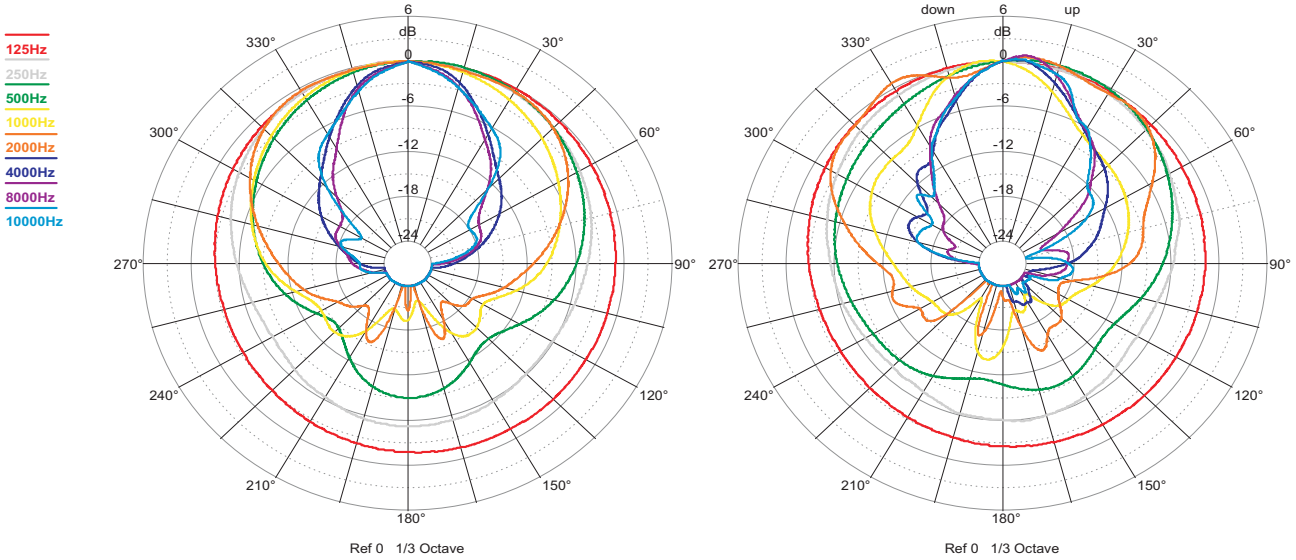
FIG. 4



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.
5.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. 5



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