

Adam Audio S3V Review

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After a few turbulences and a change of ownership with new management, the Berlin-based monitor manufacturer ADAM Audio is now focusing more and more on the new and further development of studio monitors of all categories. New in our portfolio and under the microscope: [ADAM Audio S3V](#)

Among other things, ADAM Audio is headed today by Chairman David Angress, who, with decades of experience in the professional audio market, guarantees stability and peace of mind. His team also includes Philippe Robineau, a not-so-well-known personality in the audio scene, and Andreas Guhde, chief developer of acoustics, who has returned to ADAM Audio after a brief interlude and also has a wealth of experience and knowledge in speaker development ,

In the past weeks [ADAM Audio](#) introduced the new [S-series](#) with a roadshow. The five monitors in the S series have been completely redeveloped in the past two years and are the flagship in the current program. In fact, everything is new in the S-Series. Andreas Guhde did not bother with the manufacturers of the chassis and developed the ELE (Extended Linear Excursion) woofers as well as the DCH (Dome Cone Hybrid) midrange, the hybrid of a cone and dome chassis with a laminated from a carbon fiber composite membrane comes along, completely new.



The tweeter based on the principle of the Air Motion Transformer, which originates from its own production and was handcrafted at the Berlin plant, also received further development and was equipped with a newly calculated waveguide. The integrated in the housing of the tweeter HPS Waveguide (High-Frequency Propagation System) is milled from an aluminium block, which not only a low-resonance sound emission, but also a good heat dissipation for the driver is achieved.

The new development also resulted in new housings featuring generously rounded edges and corners as well as flow-optimised bass reflex ports. The wall thicknesses of the housing are noticeably high, which is required for a rounding of the edges, but of course also reduces unwanted resonances in the material. Together with the powerful magnets of woofer and midrange, this leads to a rather considerable weight, which is 25 kg in the S3V, which one would not suspect at first glance. However, this does not create a problem because studio monitors are usually set up and positioned once and then stopped moving.

The S-Series with the S3V was tested for the middle model with vertical arrangement of the three paths. Alternatively, there is also the S3H for the transverse operation, which is equipped instead of the one 9" woofer with two 7" woofers and otherwise identical. The S3V is a typical midfield monitor, which is operated optimally free-standing and recommends itself for listening distances of two to four meters.

With a street price of about 4,600,- € per pair, it is mainly the professional users. Further important aspects for this clientele are the long-term and

fast support assured by David Angress in the interview as well as a correspondingly long product life cycle. Regardless of ADAM Audio, the industry as a whole would also be in good standing if instead of constant rapid product changes with questionable news and improvements, more solidly developed products with a long-term perspective would come onto the market.

If we come to the S3V in detail, then we are dealing with a fully active 3-way system. The S-type tweeter with waveguide is combined in the S3V with a 4" midrange tweeter and a 9" woofer. The separation takes place at 250 Hz and at 3 kHz, so that all paths operate in their respective optimal working range. The internal electronics consist of two 500W or 300W maximum power V-Class power amplifiers for the woofer and mid-range and a self-developed Class AB power amp with 50W of maximum power for the tweeter. Despite the high quality of Class D amplifiers achieved today, ADAM Audio continues to rely on a classic A / B circuit for the sensitive and high-resolution S-type tweeter, whose audio qualities are still right for Class D circuits when properly designed the standard is.

Completely new to ADAM Audio is the first use of a DSP system for signal processing. In detail these are the X-Over filters, the EQs and the limiters. For the first time, this also gives the user the opportunity to measure the monitors to the individual situation and to create their own setups using

a filter bank and delay and level settings. The audio signal can be played either analog or digital via AES / EBU interface.

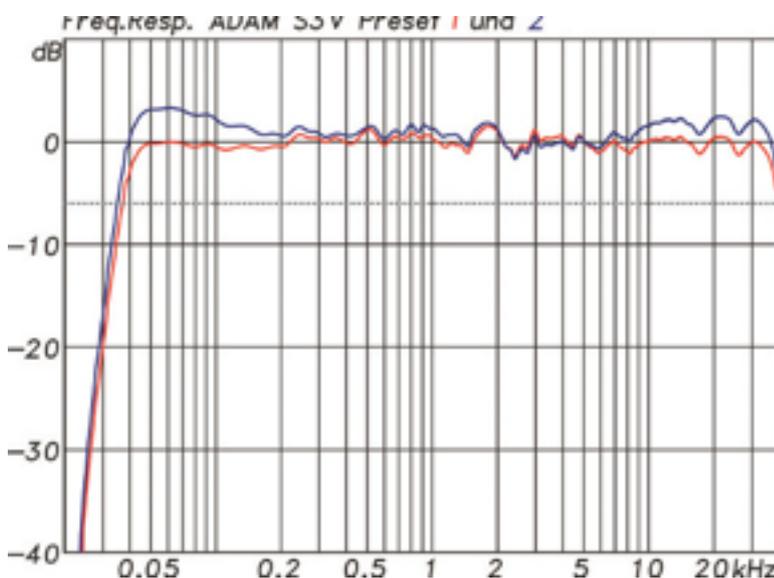
The digital signal can be passed through a link socket to another speaker. The selection of the left or right channel is made via the DSP menu. Possible firmware updates for the DSP can be recorded via USB interface. The operation of the DSP is simple with the aid of an incremental encoder and a small display, although the functions and the procedure for the adjustment are not always immediately apparent.

From the measurement laboratory under reflection-free conditions, the following measurements are taken on the frequency response, the radiation behavior and the distortion values. The class 1 measuring room allows measuring distance up to 8 m and offers free field conditions from 100 Hz upwards. All measurements are carried out with a B & K 1/4"4939 measuring microphone at 96 kHz sampling rate and 24 bit resolution with the Monkey-Forest audio measuring system. Measurements below 100 Hz are taken as combined near field far field measurements.

MEASUREMENTS

After listing the many news, the pressing question now is how these are presented. A first look at the frequency response from Fig. 1 is already promising. Preset # 1 (red) is perfect. The lower corner frequency of 36 Hz makes a subwoofer superfluous. At the upper end, the corner frequency is beyond 40 kHz. The latter is the great specialty of the S-ART tweeter, which, like no other, perfectly reproduces the octave of 20 to 40 kHz.

Although this frequency range is no longer audible, there are two relevant aspects: A tweeter that still masters the 40 kHz sovereign, will have no problems in the audible frequency range. Possible impairments due to resonances



above 20 kHz, which could be noticeable as intermodulation in the audible range, are not available here. The ripple in the frequency response with 2.9 dB from the minimum to the maximum is also very good.

The second blue curve was measured using the Uniform Natural Response (UNR) setup and has a moderate depth and treble accentuation. Three more setup places can be occupied with user presets. For this purpose, a low and high shelf filter as well as six fully parametric bell filters are available in the DSP system.

A block diagram of the filter structure is shown in Fig. 9. The filters can be used to compensate for potential problems with natural frequencies in the room or near a boundary. The phase response in Fig. 2 indicates conventional 4th order IIR filters for the X overfunctions. At each transition there is 360 ° phase rotation. An alternative with phase-linear FIR filters would certainly be interesting at this point.

The result of the maximum level measurement is also pleasing. The S3V achieves almost 110 dB in the measurement with sinus bursts almost continuously with only a maximum of 3% distortion. Only between 100 and 200 Hz does the curve break a few dB. There are no real weaknesses. Measured with a multi-tone signal, an S3V reaches an averaging level of 103 dBA and a peak level

of 118 dB in free space conditions in the full room in relation to 1 m distance. The distortion rate is 7%. The usual measurement limit of 10% was not reached because the internal limiters were used before.

For the radiation behaviour, the isobars from Figs. 5 and 6 show a uniform and with 120 ° wide horizontal course. Above 10 kHz, it is due to the size of the tweeter then a slight constriction. Vertical is the constriction at 3 kHz by the transition and the arrangement of the paths to each other unavoidable. Overall, the tweeter here intentionally shines a little tighter. Midrange and woofers behave in a similar way to the horizontal plane. Two more readings should be mentioned. The noise level was very low at 22 dBA at a distance of 10 cm from the tweeter, and the pair deviation could also convince with just 0.7 dB.

LISTENING

For the hearing test, the S3V were set up freestanding in a midfield arrangement at a distance of about 3 m to the listening position. An average measurement with 30 positions per box in the immediate vicinity of the listening position is shown in Fig. 8 as well as the derived EQ and the result with EQ. For a direct comparison or as a reference another established pair of active 3-way monitors was used. The result could be seen or heard in terms of the S3V. The S3V captivates with its extensive frequency response with deep bass and very nice and fine highs. The spatial image as well as a natural voice reproduction succeeded perfectly. It was striking how clear and transparent the S3V was able to reproduce even complex and highly compressed material.

CONCLUSION

After some troubled times, ADAM Audio from Berlin reports back with its new S series as a top model of the product range. Without question, the performance succeeded. With the middle model S3V, which has been put to the test, with a completely redesigned chassis, including waveguides and new electronics, the development department is showing what the future is all about. In the laboratory, the S3V consistently delivers very good results, which are then confirmed in the listening impression. In short, the S3V delivers a perfect frequency response up to the 40 kHz measurement limit, a high SPL of up to 118 dB peak, all at low distortion. Housing and processing make a solid impression, and the integrated DSP now offers the user for the first time with ADAM the ability to create their own filter settings and setups.

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readings

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sound quality

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possible applications

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workmanship and value

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price / performance ratio

PROFILE ADAM AUDIO S3V

Frequency range: 36 Hz - 40 kHz (-6 dB)

Ripple: 2.9 dB (100 Hz - 10 kHz)

hor. Opening angle: 123 degrees (-6 dB Iso 1 kHz - 10 kHz)

hor. STABW (standard deviation): 15 degrees (-6 dB Iso 1 kHz - 10 kHz)

Ver. Aperture angle: 94 degrees (-6 dB Iso 1 kHz - 10 kHz) ver. STDEV: 41 degrees (-6 dB Iso 1 kHz - 10 kHz)

max. Effective volume: 108 dB (3% THD 100 Hz - 10 kHz)

Basability: 108 dB (10% THD 50 - 100 Hz)

Maximum level in 1 m (free field) with EIA-426B signal at full scale: 103 dBA Leq and 118 dB peak

Pair deviations: 0.7 dB (maximum value 100 Hz - 10 kHz)

Noise level (A-weight): 22 dBA (10 cm)

Dimensions / Weight: 293 ¥ 536 ¥ 380 mm (B ¥ H ¥ T) / 25 kg