



ADAM
PROFESSIONAL AUDIO

STUDIO MONITORS

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ADAM Studio Monitors at a glance



Nearfield Monitors

A-Series



ANF10 A7 Artist

P-Series



P11A P22A P33A

S-Series



S1A S2A S2.5A S3A



Midfield Monitors

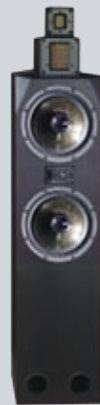
S-Series



S4A



S4VA MK 2



S4CA

Main Monitors



S5VA MK 2



S5A MK 2



S6A MK 2

Mastering Piece



MP1

Subwoofer



Su8



Sub10 MK 2



Sub12

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ADAM Studio Monitors the sharper tool

The concept: superior by innovation

ADAM Studio Monitors are the finest audio reference monitors available today. The goal of every ADAM loudspeaker is to deliver the very best sonic performance possible.

Advanced Dynamic Audio Monitors are developed and manufactured in Berlin, Germany. Innovative folded ribbon mid and high frequency drivers incorporate a new approach to the Air Motion Transformer concept originally developed by Dr. Oskar Heil. ADAM Audio has improved upon this splendid idea utilizing superior geometries and materials to achieve unprecedented audio fidelity.

Groundbreaking innovation in electro-acoustic transducers, painstaking design and superior materials are the cornerstone of ADAM technology - but what sets these monitors apart is the breathtaking realism of the sonic images they reproduce.

ADAM Audio provides a complete range of both passive and active systems to suit any environment, all with one common goal: to precisely reproduce all kinds of natural acoustical events. This precision allows one to hear previously hidden detail in even the most familiar recordings. To an engineer, this new level of perception results in a mix with true imaging and depth that is fully transportable across the range of listener music systems.



Dr. Oskar Heil and ADAM chief engineer Klaus Heinz in a relatively early discussion about the project 1982

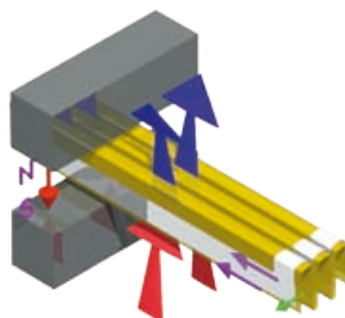
Technical perspective: the conventional approach

The dynamic tweeter used in more than 99% of all loudspeakers today generates sound via a voice coil that is mechanically connected to a stiff cone or dome. The materials preferred are fabric, polyamide, or aluminum.

The unavoidable shortcomings of this construction method are the relatively high mass of the membrane/voice coil assembly, and the tendency of the assembly to lose stiffness over time. The former constrains the upper frequency range, and the latter progressively degrades the overall sonic performance.

A relatively early attempt to solve these problems was the ribbon tweeter, in which current is passed through a small aluminum ribbon located in a strong magnetic field. Problems with this design included limited efficiency and dynamics. In addition, the very low impedance necessitated an extra transformer to drive it. Their viability as a general replacement for dynamic tweeters was further reduced by the fact that these tweeters typically could only be used for frequencies above 5 kHz, consequently missing a great deal of critical timbral information.

Within the last 20 years or so, magnetostatic designs have superseded the original aluminum ribbons. In this method of construction, the aluminum ribbon was used in conjunction with a Kapton foil. These designs achieved normal impedances, and therefore eliminated the need for the extra transformer.



The A.R.T. Principle: moving the air in a 4:1 ratio instead of a 1:1 piston motion

Groundbreaking progress: the A.R.T. Technology

The ADAM A.R.T. (Advanced Ribbon Technology) tweeters and midrange units take a completely new approach to the kinematics of moving air. See *"The A.R.T. Principle"*.

The result is dramatically improved quality of music reproduction.

The A.R.T. membrane consists of a pleated diaphragm in which the folds compress or expand according to the audio signal applied to them. The result is that air is drawn in and squeezed out, like the bellows of an accordion.

All other loudspeaker drive units (regardless of whether they are voice coil-driven, ribbons, electrostatic, piezo or magnetostatic) act like a piston, moving air in a 1:1 ratio with regard to the motion of the driver. The problem with this is that the specific weight of air is much lower than that of the driving mechanism. As a result, the air does not couple effectively with the transducer. The analogous situation in electrical terms is described as bad impedance matching between source and load. In both cases (acoustical and electrical), the result is less-than-optimal power transfer.

The ADAM A.R.T. design achieves an improvement in air loading by a factor of 4 over conventional transducers. This by far superior "motor" is responsible for the unprecedented clarity and transient reproduction that can be heard from the A.R.T. drive units.

In addition to the improved air coupling, the A.R.T. tweeter's pleated membrane avoids the typical breakup and subsequent dynamic limiting at higher frequencies of stiffer voice coil designs, such as those found in dome and cone tweeters.

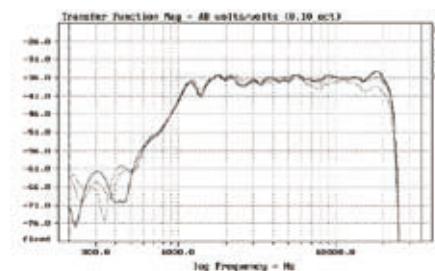
Another positive result of the A.R.T. design is that the driving "stripes" are in direct contact with the outer air and are cooled immediately. Thermal power handling of the units is increased, surpassing that of 1" domes by a factor of more than 2:1.

The A.R.T. Tweeter



Construction of the unit with neodymium magnets and a yoke (the ring), result in perfect magnetic shielding

Many functional distinctions in construction and kinematics can be drawn between the A.R.T. tweeter and voice coil-driven dome tweeters. It starts with the construction:



Unfiltered A.R.T. tweeter with microphone positions in 0°, 15° and 30°

Previous "esoteric" designs have always exhibited technical shortcomings, such as very little impedance (ribbons), bad dispersion (electrostatics, as with the original Heil Air Motion Transformer), low efficiency (magnetostrictive tweeters) or environmental problems (ozone from the ionic tweeter).

A.R.T. tweeters are superior in musical clarity and transient reproduction, with none of the engineering limitations of previous designs.

The A.R.T. Midrange



Because midrange is musically speaking the most significant frequency band, the ADAM design team was particularly interested in building a midrange driver using the same principle as the A.R.T. tweeter.

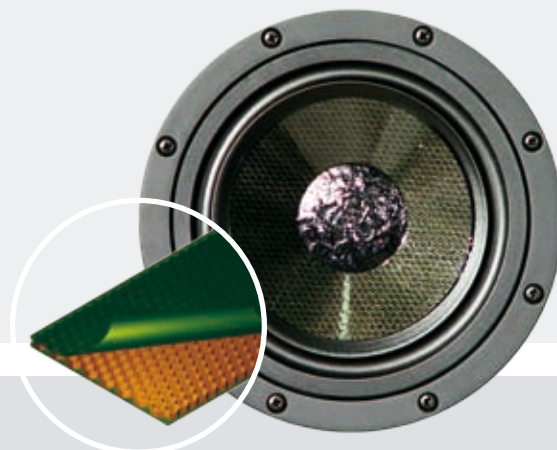
The A.R.T. midrange driver uses a diaphragm that weighs only a fraction of comparable voice coil units, and can cover the range from 400Hz to 12kHz. The large diaphragm area - comparable to a 7" conventional midrange unit - permits very high, uncompressed SPL without compromising dispersion. The unit has an absolutely flat impedance curve and consequently exhibits linear phase behavior, with a mere $\pm 0.75^\circ$ deviation within the utilized frequency band.

The literature behind speaker engineering

deals frequently with the question: how much does phase linearity influence sound quality. Transients often change their appearance in the time domain if they go through a system with only slightly nonlinear phase behaviour. The audible quality however is the same in many cases, so the proof, once more, is in the listening. We neither can nor want to finish the phase discussion, it is however good to know that the A.R.T. midrange units excel in this discipline.

There is a special lightness that intrigues the listener when auditioning ADAM monitors utilizing the A.R.T. midrange. These monitors are a quantum leap forward in musical accuracy, closely approaching the ideal loudspeaker.

The HexaCone® woofer

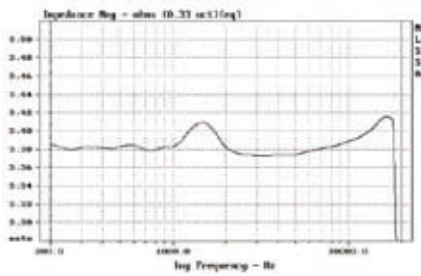


HexaCone™ - the innovative cone material with honeycomb structure

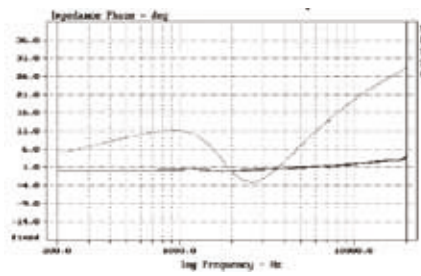
The woofers used in ADAM's "S" Series monitors have a special diaphragm called HexaCone™. The core is a honeycomb structure made of Nomex™, making them both light and stiff. The front and back of the cone have been coated with Kevlar™, the most advanced synthetic material available. Kevlar™ withstands elongation by a force factor >1000 times that of steel, enabling the cone to resist deformation. HexaCone™ woofers are far more rigid than paper, polypropylene or aluminum devices of similar dimensions.

The effective length and diameter of the voice coils, together with the strength of the magnets and the available cabinet volume are aligned for musically optimum low frequency reproduction.

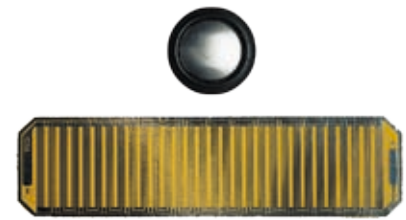
... "We consider this to be an unnecessary compromise"



A.R.T. tweeter impedance: linear within $\pm 15 \text{ m}\Omega$



Phase response of the A.R.T. tweeter compared to a 1" dome tweeter



Area comparison between the unfolded A.R.T. tweeter diaphragm and a 1" dome tweeter

Due to the lack of a traditional voice coil, there is a very flat impedance (as can be seen in the diagram above). Please note the vertical scaling: in a normal plot the impedance rise would disappear in the line itself, as it is 1/500 of the normally expected value.

Correspondingly the phase response is extremely flat within $\pm 1.5^\circ$.

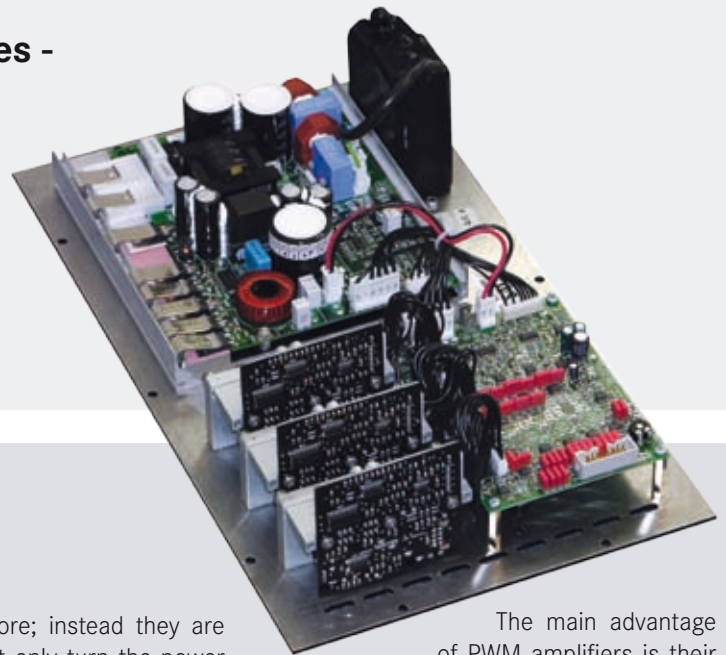
To summarize, A.R.T. tweeters have a high efficiency of appr. 92 dB/W/m, a perfectly linear impedance of $3.2 \pm 0.05 \Omega$, an equally perfect phase response of $\pm 1^\circ$ within the utilized bandwidth, excellent directivity characteristics and a power handling two or three times that of 1" domes.

Being a groundbreaking technological innovation with easily discernible superior performance and no technical flaws, the A.R.T. driver is clearly unequalled in the annals of audio history.

Diaphragm area is another important factor in determining the dynamic range of a transducer. Basically, what you see is what you get. The cone area you can see is always the acoustically active area of the loudspeaker – this is true for practically all other drive units. By folding the A.R.T. diaphragm into the third dimension (as seen from the listener's position) a larger foil can be used, thus increasing the acoustically effective area of the diaphragm by a factor of more than 2.5.

This results in higher dynamic output with excellent dispersion.

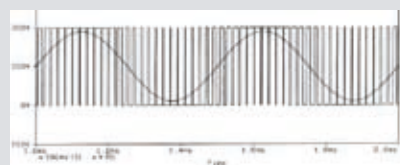
Switching amps, switching power supplies - A quantum leap in amplifier technology



In recent years amplifier technology has experienced its second big change after going from tubes to transistors some 40 years ago. You can still find semiconductors in this new generation of amplifiers, but the signals to be amplified are treated in a completely new and different way.

PWM (Pulse Width Modulation) - sometimes referred to as Class D amplification in contrast to the normal A or AB transistor amplifiers, and sometimes called Switching Amp Technology - converts the incoming signal to a series of rectangular waveforms of equal height. The width of the rectangles varies in time and the relation of the width of the rectangles represents the musical signal. This waveform can be amplified much more simply, as the transistors are

not modulated anymore; instead they are used as switches that only turn the power supply voltage on and off. In the case of a single sine wave this looks as follows:



Even a very fast mechanical switch could do the job, but power transistors turn out to be a better choice for the task, so PWM amplifiers still look pretty much like the classic Class AB designs. Important note: there are no bits and bytes involved, so "Digital Amplifier" is a misleading description of the principle.

The main advantage of PWM amplifiers is their extremely high efficiency (> 90%). As a consequence the heat to be dissipated is only one fifth of earlier designs, leading to much lower temperatures within the amps and making the use of heat sinks obsolete. This principle has been known for decades, but time was needed to develop units that are at the leading edge in sonic reproduction quality and that still have the high efficiency mentioned previously.

The ADAM units presented here use the new technology for both the amp and the power supply section (i.e. no more transformers) and combine it with state of the art input and filter sections to achieve the best in multichannel active studio monitoring.

Artist

The ultimate compact A/V monitor

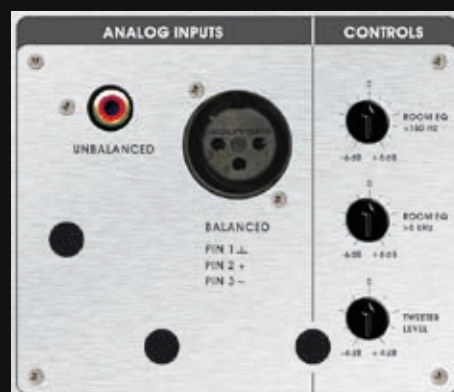
The Artist is a small, unique active monitor that is dedicated to maximum acoustic performance for applications requiring an attractive monitor with a small footprint. It uses a brand new ADAM A.R.T. tweeter for the frequencies above 1.8 kHz, providing breathtaking authenticity in the reproduction of music and speech. It is an ideal solution for the desktops of enthusiastic professional and hobbyist audio engineers and multimedia designers in search of no-compromise equipment in their A/V set up either at home or at work. It is also equally well suited for any post production room, home studio or mobile recording facility. It combines stunning performance and stylish appearance in rare harmony.

On the front, the Artist features a separate power switch and volume knob so the volume setting can stay the same when turning the unit off. Various controls on the rear of the unit allow it to adapt to different acoustic environments. Balanced XLR input and unbalanced RCA jacks are provided on the backside.

Furthermore some controls to adapt to different room acoustics can be found there:

- a level control for the tweeter that works in a ± 4 dB range
- a shelf filter that works below 150 Hz and has a ± 6 dB range
- a shelf filter that works above 6 kHz and has a ± 6 dB range too.

The Artist is magnetically shielded.



Artist accessories

ACS1 - the Artists Case

The Artist is well suited for many different environments. It can reside on a desktop where films are synchronised, be connected to a multimedia computer or sit on a console where a more intimate music project is being mixed. There may be engineers who work in different locations and who want to take their monitor for the next mixing job with them.

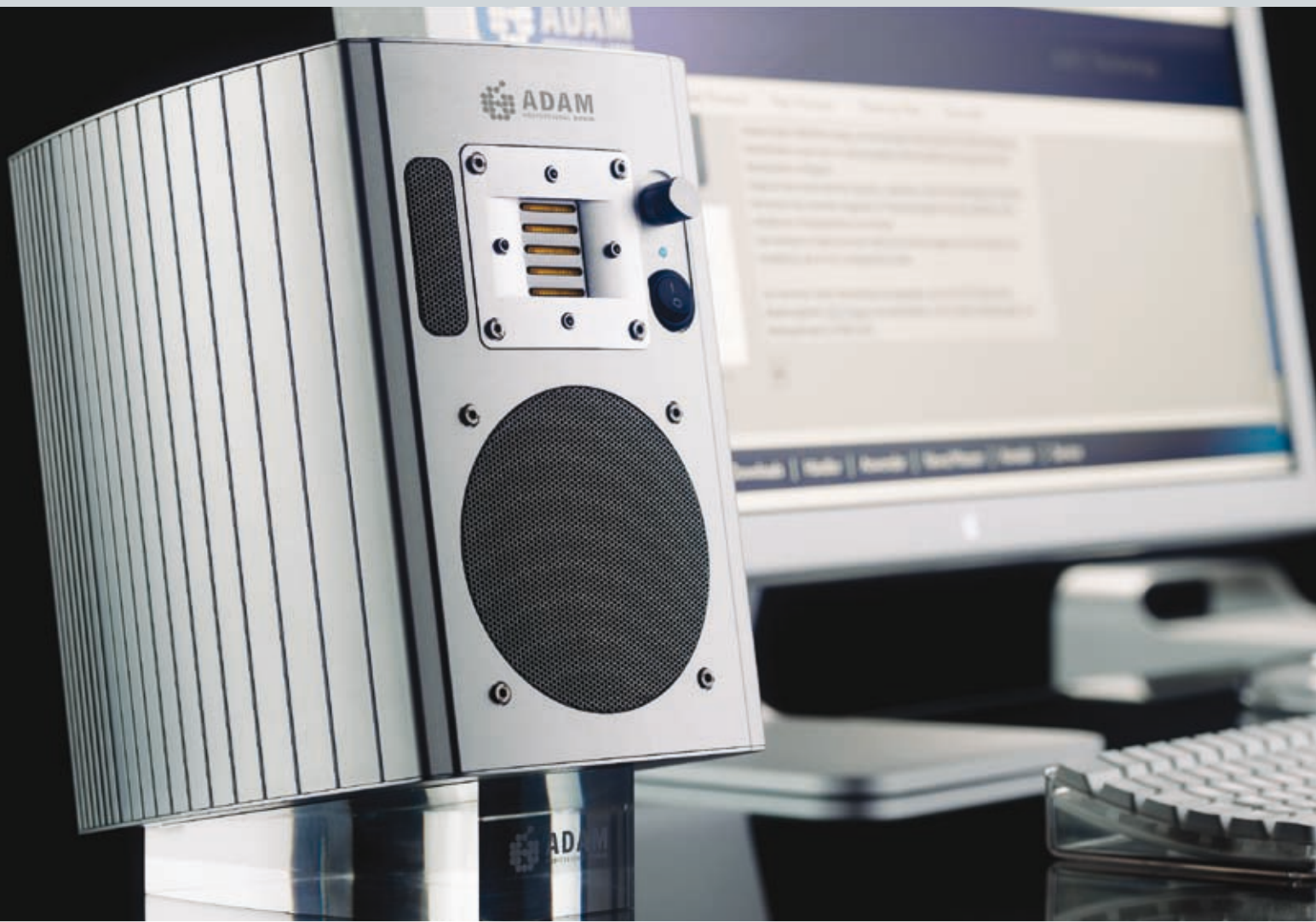
For these customers ADAM offers a superb solution: the **ACS1 Artist Case**. Manufactured by Rimova, one of the worlds leading manufacturer of aluminum based luggage, it is designed to transport 2 Artists at a time and protect them reliably no matter where you take them...

...and they look great.



ACS1
The Artists Case





ARB - Artist Rear Bracket

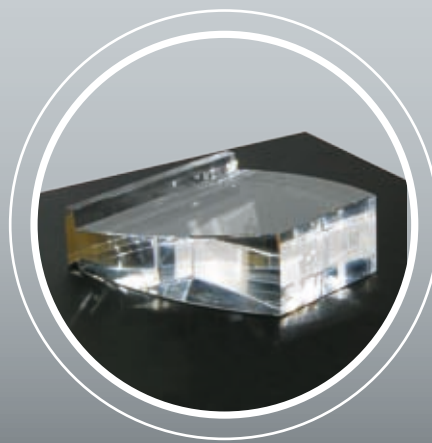
In special mounting situations, for example if the Artist needs to be positioned on a horizontal stand or suspended from a wall-mount, the optional ARB - Artist Rear Bracket – is the ideal solution.



ADS10 - Artist Desktop Stand

In most applications, the Artist will reside on a dedicated desktop. To ensure the best possible audio quality the units need to be lifted and angled a little bit, as this avoids reflections from the desk and minimizes the angle between tweeter and listener.

The ADS10 is a desktop stand made of massive crystal designed to be a solid foundation for the Artist. The forthcoming ADS20 is a lower priced version with the same shape.



recommended stand

*K&M 26010
see
www.k-m.de*

not an ADAM product

P-Series

The "P" Series of active nearfield monitors combines the A.R.T. transducer technology with compact enclosures and attractive pricing. The "P" Series offers the best value for project studios, post-production and mobile recording facilities.

The same A.R.T. tweeter is used in all the professional ADAM monitors, from the entry-level P11A to the top-of-the-line S6A MK II main monitors. The same superior resolution above 2kHz that distinguishes all ADAM loudspeakers is present in the "P" series - a precision not possible with dome or conventional ribbon tweeters.

By applying moderate equalization to the low end we obtain almost an additional octave of bass response compared with a similarly sized passive system.

The compact P11A comes with a 7" woofer reproducing frequencies down to 48Hz, while the P22A's larger 8" woofer provides extended bass response down to 35Hz. The P33A with its larger volume can deliver 34Hz with a somewhat higher SPLmax.

The built-in 100W class D (or digital) amplifiers are separately housed and exhibit excellent dynamic behavior due to their low

output impedance, leading to a damping factor >400. They represent a new audio performance oriented approach to digital amplification and combine excellent sound quality with cool operation.

On the back panel additional controls for level and room EQ's are offered. All three models are magnetically shielded.



ANF10

The ANF10 is a passive studio monitor that delivers the groundbreaking ADAM sound at an attractive price point. It combines a redesigned A.R.T. tweeter with its folded diaphragm and a 7" woofer in a relatively small bass reflex cabinet.

The crossover uses low resistance coils and MKT (metal film) capacitors to avoid any unnecessary losses in the signal path. It is the layout of this crossover design that strongly influences the extremely critical midrange sound quality, something that requires more experience and dedication than designing active filters. ADAM is especially keen to achieve that quality, and demonstrates with the ANF10 that it is possible to hear a lot more depth and detail from audio tracks than previously possible in this price range. Both drive units show a high efficiency of 89 dB/W/m, so a high dynamic range even with smaller amplifiers ($\geq 25W$) is easy to achieve.



shielded woofer of the ANF

A7

ADAM Audio is proud to introduce the A7 two way nearfield monitor, which finally brings the acclaimed ADAM sound quality to a new lower price point. The A7 matches the A.R.T. tweeter with a state of the art 6.5" woofer that introduces a new cone material combining high rigidity and high internal damping with low weight, resulting in an extremely accurate monitor with all the clarity, detail and spectacular imaging traditionally associated with the ADAM name.

The A7 is powered by two 50W rms amps (one per driver). The front panel sports both a power switch and volume control. The rear panel houses controls for tweeter level and two shelving filters for high and low frequencies. The unit also features both balanced (XLR) and unbalanced (RCA) input connectors, allowing it to be used in almost any audio application.



ANF10



A7



For project studios, post-production and mobile recording facilities:

Take the P - train!

P11A



P22A



P33A

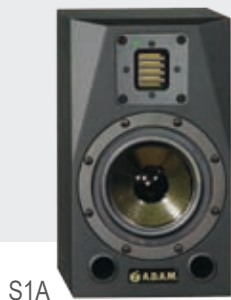


Technical data	Artist	ANF 10	A7	P11A	P22A	P33A
Woofer/Subwoofer	1	1	1	1	1	2
Basket ø	155 mm (5")	180 mm (7")	165 mm (6.5")	182 mm (7")	220 mm (8")	182 mm (7")
A.R.T. Tweeter	1	1	1	1	1	1
Diaphragm area	71 cm ² 11in. ²	71 cm ² 11in. ²	71 cm ² 11in. ²	71 cm ² 11in. ²	71 cm ² 11in. ²	71 cm ² 11in. ²
Equiv. diaphragm ø	95 mm 3.7"	95 mm 3.7"	95 mm 3.7"	95 mm 3.7"	95 mm 3.7"	95 mm 3.7"
Velocity transf. ratio	4:1	4:1	4:1	4:1	4:1	4:1
Power handling (sin/music)	•	60 W/90 W	•	•	•	•
Efficiency	•	89 dB/W/m	•	•	•	•
Built in amps	2	•	2	2	2	3
Subwoofer / Woofer (1/2)*	50 W/80 W	•	100 W/150 W	100 W/150 W	100 W/150 W	100 W/150 W
Tweeter (1/2)*	50 W/80 W	•	100 W/150 W	100 W/150 W	100 W/150 W	100 W/150 W
Controls						
Volume	-40 dB ... +12 dB	•	±10 dB	±10 dB	±10 dB	±10 dB
Tweeter level	±4 dB	•	±4 dB	±4 dB	±4dB	±4 dB
Room EQ >6kHz	±6 dB	•	±6 dB	±6 dB	±6 dB	±6 dB
Room EQ <150Hz	±6 dB	•	±6 dB	±6 dB	±6 dB	±6 dB
General Data						
Freq. response ±3dB	52 Hz - 35 kHz	50 Hz - 35 kHz	46 Hz - 35 kHz	48 Hz - 35 kHz	38 Hz - 35 kHz	34 Hz - 35 kHz
THD >80Hz bei 90dB in 1m	>100 Hz: <1%	<1%	<1%	<1%	<1%	<1%
SPL max in 1m	≥102 dB	≥106 dB	≥105 dB	≥107 dB	≥109 dB	≥112 dB
Crossover frequencies	2200 Hz	1800 Hz	2200 Hz	1800 Hz	1800 Hz	150 Hz / 1800 Hz
Input impedance	10 Ω	4 Ω	10 kΩ	10 kΩ	10 kΩ	10 kΩ
Weight	6 kg (13.2 lb.)	5 kg (11 lb.)	8 kg (17.6 lb.)	10 kg (22 lb.)	13 kg (28.6 lb.)	15 kg (33.1 lb.)
Width x Height x Depth	19x25x21,8 cm	18x33x28 cm	18x33x28 cm	21x33x28 cm	26x43x34 cm	50x23x28 cm
Warranty	2 years	5 years	2 years	2 years	2 years	2 years

*1 = long term IEC 265-8-Wrms / 10 min | *2 = nominal IEC 265-8 = Peak Power 5 µsec

Nearfield Monitors

The S - series of nearfield monitors



S1A



S2A



Control panel S2A

The S1A nearfield monitor is the smallest unit using ADAM's Advanced Ribbon Technology. Equipped with a 5" HexaCone™ woofer and the A.R.T. tweeter, it starts reproduction at 40Hz (-3 dB) and delivers astounding sonic performance, even with very complex material (typically a weak point with small monitors). Adding the airiness and accurate spatial information from the A.R.T. tweeter, the S1A is the premier choice for mobile recording facilities and DAW setups.

Together with a subwoofer (Sub10 MK 2), superb stereo or 5.1 monitoring can be obtained within a limited space.

The S2A monitor utilizes a 7" HexaCone™ woofer with a large 39mm voice coil and a big magnet.

The mechanically rigid structure of its special diaphragm or cone is responsible for the high precision and stability in the bass and midrange.

Together with the A.R.T. tweeter, they deliver unsurpassed clarity and openness, revealing sonic information that is simply lost with conventional technology.

These monitors are perfect for small to medium control rooms and film post-production or broadcast studios.

On the front, it has a control panel with a standby power on switch as well as some additional controls.

The overall gain is adjustable in a ± 10 dB range, the tweeter level can be adjusted up to ± 4 dB. Hi/Lo EQ trimmers permit the user to influence the frequency response on both sides of the audible band in a ± 6 dB range without affecting the midrange. It is therefore possible to adapt the unit to different room acoustics.

Midfield Monitors

The S - series of midfield monitors



There are three different S4A models: S4A, S4VA and S4CA. While these are very closely related to each other in sound and technical performance, they are different in size and dispersion characteristic.

The three-way S4VA MK 2 features a 12" woofer, a 5" HexaCone® Midrange and the A.R.T. tweeter. The large size of the bass driver combined with 500W of sheer amplifier power dedicated to this driver alone enable this monitor to deliver low bass information loud and clear.

The four-way S4A and S4CA use the A.R.T. tweeter and midrange units as well as a pair of 8" drivers to reproduce low frequencies

down to 28Hz. In fact they are 3.5 way speakers: the lower 8" woofer rolls off at 150Hz while the other one goes up to 600Hz, where the A.R.T. midrange takes over. In the low end they work together in parallel to achieve a -3dB point at only 28Hz, while maintaining a very clean and tight reproduction.

The four built-in amplifiers deliver 250W per channel each for the woofers and 150W each for the midrange unit and the tweeter. They represent the latest PWM technology for both the amps and the power supply combining unsurpassed sonic quality with cool operation due to their very high efficiency. With damping factors of > 2500 ,

S4VA MK 2



S2.5A

The S2.5A is the biggest 2-way system we offer, with a 9" HexaCone™ woofer and the A.R.T. tweeter. The S2.5A has two built in 150W rms amplifiers so that higher SPL levels (≥ 111 dB/W/m) can be achieved, making it useable as either a near or midrange monitor.

Anyone interested in natural sounding midrange reproduction will be thrilled by the absence of cone coloration and the airiness of voices and other natural instruments.

The S2.5A sports a front panel with the same controls as can be seen above (S2A section).



S3A

The three-way/three channel S3A's utilize the A.R.T. tweeter to produce a wonderfully open sound field and pristine transients to 35kHz. Two 7" HexaCone™ woofers and the S3A's cabinet design combine to deliver tight, linear bass down to 32Hz without breaking up or generating muddying artifacts. One woofer acts as a full-range driver with the second woofer joining it only below 150Hz. This unusual approach effectively doubles the area and power of the woofer when it needs to respond to deeper frequencies, resulting in an exceptionally deep and punchy low end without compromising midrange perfor-

mance. Three 150-Watt amplifiers in each monitor deliver outstanding dynamic performance. The S3A can be used either horizontally or vertically to fit the needs of your studio. They are capable of reproducing the entire usable musical frequency range powerfully and effortlessly.

The award-winning S3A's have found critical acclaim from enthusiasts around the world, including professional recording studios in Hong Kong, European broadcast facilities, and major Hollywood film-scoring rooms and stages.

the electrical control of the drive unit could hardly be any better.

All versions of the S4A are best suited for use in medium and larger control rooms. As they adhere to strict German guidelines for broadcast use, they are an ideal choice for both television and broadcast recording studios where the highest quality standards must be observed.

The S4A is optimized for stereo localization,

where the S4CA and the S4VA are ideally suited to build or complete 5.1 set-ups. All three S4A variations have a very similar sound, making it no problem to mix and match the different models for surround sound monitoring.

The S4A's ability to create realistic 3-D soundscapes makes them the ideal choice for the discerning surround sound engineer.



S4A



S4CA Column



S5VA MK 2

S5VA MK2

Panel

The S5VA is a four-way vertically oriented studio monitor incorporating ADAM's proprietary Accelerated Ribbon Technology (A.R.T.) folded ribbon tweeter and midrange unit, which provide amazingly life-like and detailed imaging.

It houses a 12" HexaCone® subwoofer drive unit that has a large 62 mm voice coil and a heavy magnet system. The combination of this big motor with the outstanding stiffness of the cone enable the reproduction of very low signals that remain stable and tight. This speaker maintains control, and does not try to impress the innocent!

The 8" woofer uses the same honey-comb core coated with Kevlar on both sides, allowing for an extremely precise and uncoloured response.

The upper three loudspeakers are each driven by a 150W discrete amplifier, and a 500W digital amp powers the 12.5" subwoofer.

The S5VA was designed to be used as either a midfield or main monitor in the most demanding professional recording, mixing, and surround studio applications.

The front panel carries a number of controls to adapt to different room acoustics or personal tastes.

At both ends of the frequency spectrum there are shelf filters for the ranges > 6 kHz and < 150 Hz.

Of course there is an input sensitivity control, additionally you find gain controls for the tweeter and the two midrange units. The power switch goes from "standby" to "on", the main power switch is to be found on the back side.

S5A MK2

The S5A monitors transport the fundamental virtues of the A.R.T. technology and the HexaCone™ woofers to much higher SPL regions. As the diaphragm areas involved are considerably enlarged an outstandingly impressive combination of natural sound and high dynamics is achieved.

Two 11" HexaCone™ woofers, a 5" HexaCone™ midrange unit, an A.R.T. midrange and an tweeter are capable of filling large control rooms with breathtaking realism and stunning dynamic peaks.

A front panel carries variable controls for input sensitivity, level controls for tweeter and midrange amplifiers as well as ± 6 dB shelving filters on both ends of the frequency spectrum.



S5VA MK 2 - 12" HexaCone® woofer with 62 mm voice coil



S5A MK 2 control panel



S5VA MK 2

„Nothing pleases more than a decision that was made without compromise“

S6A MK 2

The S6A MK 2 Main Monitor is the culmination of our finest efforts in the line of studio monitors.

It all starts with the concept: the horizontal symmetry of the drivers, sometimes referred to as D'Appolito array. If the drivers are filtered properly there are three advantageous results:

1 - There is an absence of any sudden change in directivity with frequency, leading to a harmonic dispersion behaviour throughout the audio band. The absence of sudden changes in directivity is something not visible in a frequency plot, but clearly audible especially with complex materials

like large orchestras or the human voice.

2 - The monitors show a wide dispersion in the horizontal plane and a somewhat narrower dispersion in the vertical plane, thus reducing reflections from the ceiling, the floor or a mixing console. Less reflection means superior imaging, and better localization of phantom sources for the discerning audio engineer.

3 - Furthermore the dynamic capabilities of the monitor are distributed over the audio band more equally, and louder recording or mixdown sessions with SPL's of 120 dB are handled without offending the ear.

To get a precise and undistorted reproduction all drive units are mounted on an ultra stiff Aluminum honeycomb plate (details can be found on page 15).

The combination of HexaCone® drivers for the bass and the A.R.T. midrange and tweeter units, the special mounting and the excellent new amps lead to a clarity and authenticity that we consider to be unsurpassed.

The S6A MK 2 certainly is the most complex fully active monitor ever built. Whether it is the best one too – we encourage you to hear for yourself.



Total control

Amplifier section

In the S6A MK 2 ADAM uses its new generation of switching amps with switching power supplies as described on page 5 of this catalogue.

For the S6A MK 2 they are combined in an extremely powerful yet cool amplifier assembly. Together with the built in overload protection circuits they run reliably and at constant safe operating temperatures not possible with conventional designs.

The 12" subwoofers are driven by 500 W rms each and 150 W units power the other three frequency bands.

The amplifiers are of extremely low output impedance, leading to a damping factor >4.000, enabling them to strictly control the motion of the drive units.

The Front panel

Numerous controls on the front panel introduce a new degree of control for main monitors.

Besides the input gain there are 4 level controls for the drivers, shelving filters on both ends of the frequency spectrum and three fully parametric EQs between 20 Hz and 200 Hz to combat standing waves in the control room. The EQs can

be bypassed individually or as a group so that their effect can be analyzed in direct comparison.

A second switchable input at the front allows servicing without moving the unit.

Last but not least, all LED indicators can be dimmed if necessary.



IC - Impulse Coupling

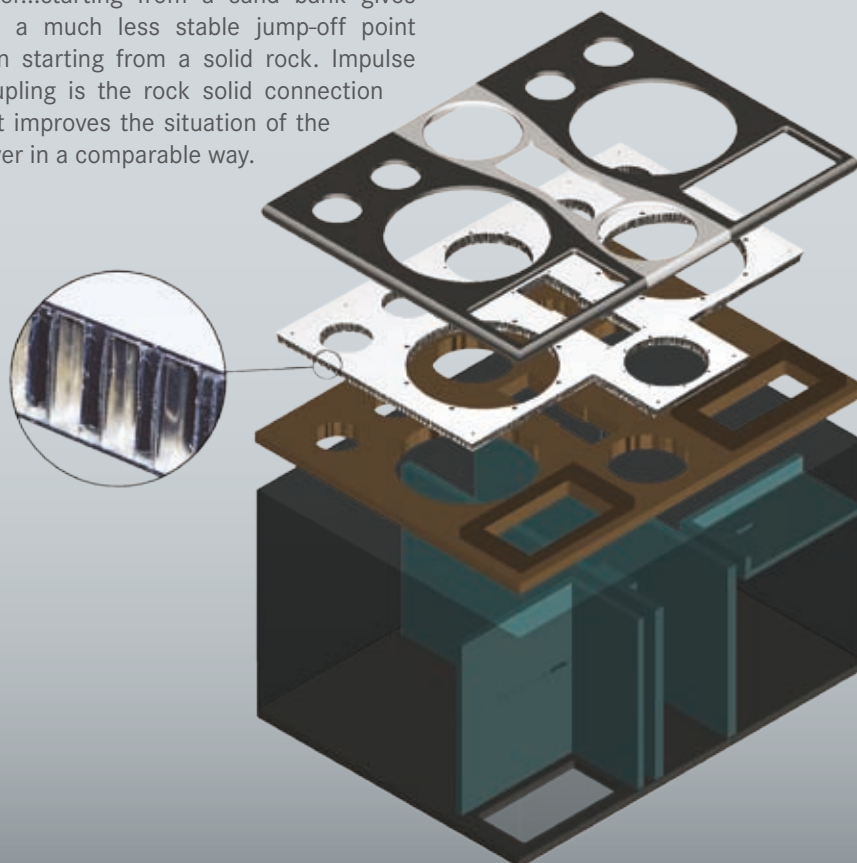
To improve the time behavior of speakers ADAM introduces IC = Impulse Coupling, a method to vastly improve the connection between drivers and wooden cabinet.

There is this well-known action = reaction principle of Sir Isaac Newton, that (as relates to speaker mounting) means that the forces created by the movement of the diaphragm/voice coil assembly are transferred to the cabinet. As wood is not very stiff these forces cause local instability around the driver, i.e. - phenomena that keep the drivers basket in motion relative to the diaphragm thus deteriorating the transmitted sound quality.

In the S6A Mk 2 all drivers are mounted on an ultra stiff 25 mm thick aluminum honeycomb plate, which is acoustically dead - thereby providing an extremely mechanically stable bridge to the cabinet. As the drivers are much better fixed this way their time behavior (and consequently their clarity) is audibly and measurably improved.

Imagine you would like to jump in the

water...starting from a sand bank gives you a much less stable jump-off point than starting from a solid rock. Impulse Coupling is the rock solid connection that improves the situation of the driver in a comparable way.



when only the best will do



The field of audio mastering has emerged with its own set of standards and criteria. Numerous specialized components are offered to the mastering engineer nowadays - components that can remove unwanted parts of the signal or that can enhance, optimize or restore sonic elements of the recording under consideration.

How do these specialists control their work, or better: how should they control their work?

It was to answer this need that the ADAM MP1 "Mastering Piece" was created. The MP1 reveals what is actually present in an audio recording with an unprecedented degree of sonic precision, offering every discerning mastering engineer the chance to hear what he does more accurately and in greater detail than ever before.

In designing the MP1, we examined the leading edge of today's loudspeaker technology at every frequency band.

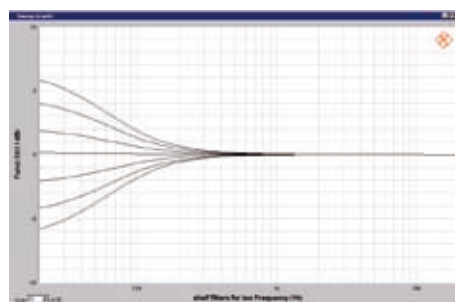
It starts with a 12" side-firing Hexa-Cone™ woofer, driven by a digital no-compromise 500 W amplifier. A very stable bass reflex cabinet, where the woofer could be mechanically tuned to a 23 Hz corner frequency (-3 dB point) is responsible for an extremely pure sound free from overemphasizing artifacts, resulting in especially tight and solid bass response. One can immediately appreciate the accuracy of these monitors when listening to an acoustic bass instrument.

The range between 80 and 600 Hz is reproduced by ceramic cones, which exhibit the best stability-to-weight ratio of all solid diaphragms. Combined with our A.R.T. midrange and tweeter units, these are the most advanced and precise drive units available.

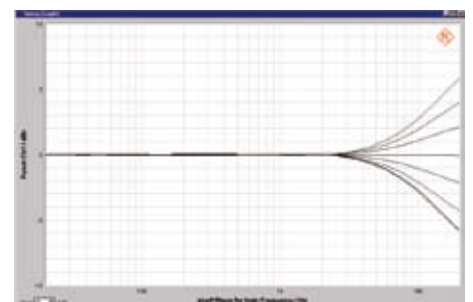
MP1 control panel

The control panel on the front allows the MP1 to adapt to different room acoustics in order to optimize performance in any given situation.

Besides input sensitivity, there are controls to adjust the individual levels of the tweeter and midrange amplifiers as well as shelving filters on both ends of the frequency band, thus allowing for maximum flexibility of positioning within the control room (see *diagram 1*) as different room absorption may be equalized (see *diagram 2*).



EQ < 150 Hz



EQ > 6 kHz

Subwoofer

Sub 8

The Sub8 is a small yet powerful subwoofer designed to extend the low frequency capabilities of any nearfield monitoring system. The Sub8 houses an excellent 8" woofer with a large 50 mm voicecoil, and is driven by a 160 W Ice Power amp. This amp stays cool while handling maximum power levels even if they are sustained.

The front baffle features two motorized knobs that let you tailor input level and crossover frequency settings for the best

performance in your studio. These knobs can be controlled with an included wireless remote, allowing you to optimize your sound reproduction from your ideal listening position.

The Sub8 is an ideal match for ADAM monitors such as the ANF10, P11A, S1A and S2A. In addition to a traditional black model, ADAM will also offer a silver version that will be a perfect complement to the Artist desktop monitor.



Sub8

Sub 10 MK2

The Sub10 MK 2 is a powerful subwoofer designed to extend the low frequency capabilities of any near- or midfield monitoring system. The Sub10 MK 2 houses an excellent 10" woofer with a large 50 mm voice coil, and is driven by a 200 W Ice Power amp. This amp stays cool as it uses PWM = pulse width modulation in the amp and the power supply section, thus arriving at a > 90% overall efficiency. It can handle its maximum power without danger for the electronics or the driver.

The now available MK 2 version works with

a new downfiring bass reflex tube, that due to its shape and size avoids „breathing“ noise from the tube with much more effect.

For larger rooms or higher levels it is possible to chain as many Sub10 MK 2's as necessary. All in- and outputs have both XLR and RCA(Cinch) connectors.

The Sub10 MK 2 is an ideal match for ADAM monitors such as the P series or the S1A through S3A studio monitors.



Sub10 MK 2

Sub 12

For larger control rooms or auditoriums the Sub12 is an even better choice.

This larger unit houses a 12" woofer capable of producing a 3 dB higher SPL max output.

The wide bass reflex tube fires downwards; due to its size and construction ventilation noise is successfully avoided.

Subwoofer Backpanel



Technical data	Sub 8	Sub10 MK 2	Sub 12
Driver	8"	10"	12"
Free air resonance	28 Hz	25 Hz	22 Hz
Voice coil ø	38 mm	50 mm	50 mm
Cone material	coated paper	coated paper	coated paper
Built in amps:	160 W/240 W	200 W/300 W	200 W/300 W
Frequ. response ±3dB	28 Hz-150 Hz	25 Hz-150 Hz	22 Hz-150 Hz
THD >60Hz	≤1 %	≤1 %	≤1 %
SPL max in 1m	112 dB SPL	115 dB SPL	118 dB SPL
Crossover frequencies	50 - 150 Hz	50 - 150 Hz	50 - 150 Hz
Input impedance	10 kΩ	10 kΩ	10 kΩ
Weight	12 kg	21 kg	26 kg
Magnetical shielding	no	no	no
Width x Height x Depth	26x41x38 cm	30x50x40 cm	36x60x45 cm
Warranty	2 years	2 years	2 years



Sub12

Technical data

Technical data	S1A	S2A	S2.5A	S3A	S4A
Woofers/Subwoofers	1	1	1	2	2
Basket \varnothing	155 mm 5"	186 mm 7"	228 mm 8"	186 mm 7"	228 mm 8"
Free air resonance	48 Hz	40 Hz	31 Hz	40 Hz	31 Hz
Voice coil \varnothing	25 mm 1"	39 mm 1.5"	39 mm 1.5"	39 mm 1.5"	39 mm 1.5"
Cone material	HexaCone®	HexaCone®	HexaCone®	HexaCone®	HexaCone®
A.R.T. Midrange	•	•	•	•	1
Diaphragm area	•	•	•	•	213 cm ² 33 in. ²
Equiv. diaphragm \varnothing	•	•	•	•	16,5 cm 6.4"
Velocity transformation ratio	•	•	•	•	3,5:1
Diaphragm weight	•	•	•	•	0,7 g
A.R.T. Tweeter	1	1	1	1	1
Diaphragm area	71 cm ² 11 in. ²	71 cm ² 11 in. ²	71 cm ² 11 in. ²	71 cm ² 11 in. ²	71 cm ² 11 in. ²
Equiv. diaphragm \varnothing	95 mm 3.7"	95 mm 3.7"	95 mm 3.7"	95 mm 3.7"	95 mm 3.7"
Velocity transformation ratio	4:1	4:1	4:1	4:1	4:1
Diaphragm weight	0,17 g	0,17 g	0,17 g	0,17 g	0,17 g
Built in amps	2	2	2	3	4
Subwoofer (1/2)*	•	•	•	150 W/200 W	250 W/300 W
Woofers (1/2)*	100 W/120 W	150 W/200 W	150 W/200 W	150 W/200 W	250 W/300 W
Midrange (1/2)*	•	•	•	•	150 W/200 W
Tweeter (1/2)*	100 W/120 W	150 W/200 W	150 W/200 W	150 W/200 W	150 W/200 W
Control panel *					
Input Sensitivity	±10 dB	±10 dB	±10 dB	±10 dB	±10 dB
Tweeter level	±4 dB	±4 dB	±4 dB	±4 dB	±4 dB
Room EQ >6kHz	±6 dB	±6 dB	±6 dB	±6 dB	±6 dB
Mid level	•	•	•	•	±2 dB
Room EQ <150Hz	±6 dB	±6 dB	±6 dB	±6 dB	±6 dB
General Data					
Frequency response ±3dB	40 Hz - 35 kHz	35 Hz - 35 kHz	34 Hz - 35 kHz	32 Hz - 35 kHz	30 Hz - 35 kHz
THD >80Hz	≤1,5%	≤0,8%	≤0,6%	≤0,5%	≤0,5%
SPL max in 1 m	≥103 dB	≥108 dB	≥110 dB	≥112 dB	≥114 dB
Crossover frequencies	2.200 Hz	1.800 Hz	1.800 Hz	150/1.800 Hz	120/800/2.800 Hz
Input impedance	10 k Ω	10 k Ω	10 k Ω	10 k Ω	10 k Ω
Weight	8 kg 17.6 lb.	13 kg 28.6 lb.	15 kg 33 lb.	16 kg 35.3 lb.	32 kg 70.5 lb.
Magnetic shielding	yes	optional	optional	optional	optional
Width x Height x Depth	17x30x26 cm	22x37x32 cm	28x45x30 cm	50x24x32 cm	68x36x45 cm
Warranty	2 years	2 years	2 years	2 years	2 years

*1 = long term IEC 265-8-Wrms / 10 min

*2 = nominal IEC 265-8 = Peak Power 5 μ sec

* = the S1A panel is located on the backside

Technical data	S4CA	S4VA MK 2	S5A MK 2	S5VA MK 2	S6A MK 2	MP1
Woofer/Subwoofer	2	1/1	1/2	1/1	2/2	1
Basket ø	228 mm 8"	155 mm / 315 mm 5" / 12"	155 mm / 280 mm 5" / 11"	228 mm/310 mm 8"/12"	186 mm/310 mm 7"/12"	315 mm 12"
Free air resonance	31 Hz	48 Hz/26 Hz	48 Hz/23 Hz	31 Hz/23 Hz	40 Hz/18 Hz	18 Hz
Voice coil ø	39 mm 1.5"	25 mm/62 mm 1" / 2,5"	25 mm/50 mm 1" / 2"	39 mm/62 mm 1.5"/ 2.5"	39 mm/62 mm 1.5"/2.5"	62 mm 2.5"
Cone material	HexaCone®	HexaCone®	HexaCone®	HexaCone®	HexaCone®	HexaCone®/ Ceramic
Midrange	1	•	2	1	2	1
Diaphragm area	213 cm ² 33 in. ²	•	213cm ² 33in. ²	213cm ² 33in. ²	213cm ² 33in. ²	213cm ² 33in. ²
Equiv. diaphragm ø	16,5 cm 6.4"	•	165mm 6.4"	165mm 6.4"	165mm 6.4"	165mm 6.4"
Speed transf. ratio	3,5:1	•	3,5:1	3,5:1	3,5:1	3,5:1
Diaphragm weight	0,7 g	•	0,7g	0,7g	0,7g	0,7g
A.R.T. Tweeter	1	1	1	1	1	1
Diaphragm area	71 cm ² 11 in. ²	71 cm ² 11 in. ²	71 cm ² 11 in. ²	71 cm ² 11 in. ²	71 cm ² 11 in. ²	71 cm ² 11 in. ²
Equiv. diaphragm ø	95 mm 3.7"	95 mm 3.7"	95 mm 3.7"	95 mm 3.7"	95 mm 3.7"	95 mm 3.7"
Velocity transform. ratio	4:1	4:1	4:1	4:1	4:1	4:1
Diaphragm weight	0,17 g	0,17 g	0,17 g	0,17 g	0,17 g	0,17 g
Built in amps:	4	3	4	4	5	4
Subwoofer (1/2)*	250 W/300 W	•	500 W/700 W	500 W/700 W	2x500 W/2x700 W	500 W/700 W
Woofer (1/2)*	250 W/300 W	500 W/700 W	150 W/200 W	150 W/200 W	150 W/200 W	150 W/200 W
Midrange (1/2)*	150 W/200 W	150 W/200 W	150 W/200 W	150W/200 W	150 W/200 W	150 W/200 W
Tweeter (1/2)*	150 W/200 W	150 W/200 W	150 W/200 W	150 W/200 W	150 W/200 W	150 W/200 W
Control panel						
Input Sensitivity	±10 dB	±10 dB	±10 dB	±10 dB	±10 dB	±10 dB
Tweeter level	±4 dB	±4 dB	±4 dB	±4 dB	±4 dB	±4 dB
Room EQ >6kHz	±6 dB	±6 dB	±6 dB	±6 dB	±6 dB	±6 dB
Mid level	±2 dB	±2 dB	±2 dB	±2 dB	±2 dB	±2 dB
Room EQ <160Hz	±6 dB	±6 dB	±6 dB	±6 dB	±6 dB	±6 dB
General Data						
Frequ. response ±3dB	30 Hz - 35 kHz	28 Hz - 35 kHz	26 Hz - 35 kHz	23 Hz - 35 kHz	23 Hz - 35 kHz	23 Hz - 35 kHz
THD >80Hz	≤0,5%	≤0,5 %	≤0,5 %	≤0,5 %	≤0,5 %	≤0,5 %
SPL max in 1m	≥114 dB	≥115 dB	≥118 dB	≥118 dB	≥123 dB	≥116 dB
Crossover frequencies	120/800/2.800 Hz	300 / 2.800 Hz	85/800/3.100 Hz	200/800/3.100 Hz	85/800/3.100 Hz	80/800/3.100 Hz
Input impedance	10 kΩ	10 kΩ	10 kΩ	10 kΩ	10 kΩ	10kΩ
Weight	36 kg 79.4 lb.	36 kg 75 lb.	48 kg 105.8 lb.	52 kg 114.6 lb.	103 kg 227 lb.	60 kg 132.3 lb.
Magnetical shielding	optional	optional	no	no	no	no
Width x Height x Depth	28x120x38 cm	40x76x42 cm	85x43x40 cm	41x87x45 cm	94x72x50 cm	25x160x45 cm
Warranty	2 years	2 years	2 years	2 years	2 years	2 years

*1 = long term IEC 265-8-Wrms / 10 min

*2 = nominal IEC 265-8 = Peak Power 5 µsec

FAQ: ADAM Monitore - how do they sound?

Well, here are some dramatic answers:



VDT (Verein Deutscher Tonmeister) S2-A/S4C-A News April 1999

"...so at the end I want to sum up what the participants said: phantastic, unbelievable brilliant, spectacular, simply sensational, (the smaller S2A), neutral, not offensive, natural, specific speaker sound is missing. High frequencies without graininess, good transparency. Indeed, negative properties have not been named..."



"Studio Magazin" Test S3-A April 1999

"... and actually we found an astounding capability of the monitor to produce transients with a pre-cision we hardly knew before. Weaknesses in transient rich music as known from other monitors were completely absent,... If we could give an award Mr. Heinz certainly would carry a golden needle from now on."



"Audio Professional" Test S4-A Mai 2001

... much more there is a tendency to forget after a few seconds that you are listening to a loud-speaker at all. This might sound overemphasized, but that's the way I experienced it in a private re-cording session. - No feelings of restriction one suffers from with practically every other loudspeaker... - There is practically no other studio monitor around that equals the S4-A in transparency and transient behavior. The construction of these midrange and tweeter units is part of the loudspeaker history.



"Keyboards" tests 25 active monitors < EUR 1,000 in October 2001 And the winner is: ADAM P11-A!

We got enthusiastic about the already tested P11-A (Keyboards 12/2000) as we compared it to the other test devices. Our up-til-now favourite * * * * * it equalled easily, the details in high frequencies were even better a little bit. The bass response went deeper and again sounded slightly richer.
... hall rooms could be recognized more precisely.



"Recording" Test S1-A March 2003

... and it sounded like a whole new experience from a beautiful track I had heard many times before. There is so much sonic information there that I had never heard before that I immediately zeroed in on Dave Carpenter's upright bass and was equally rewarded. Three hours later I had experienced not the slightest ear fatigue; instead I had made many more discoveries from records with which I'm very familiar.



"Tape Op" Test S3-A Jan/Feb 2003

What I heard amazed me. The high-end had so much detail that I could hear recording artefacts and distortion that had gone previously unnoticed – without the higher frequencies sounding hyped. The two woofers produced incredibly tight, focused low end. And the combination of drivers provided midrange that was smooth but not glossed-over. Plus: the imaging was fantastic.
The S3-A is the best nearfield or midfield monitor that I have ever heard.



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