ADAM A7

ADAM rejects dome tweeters in favour of folded ribbons.

Text: Robin Gist

If the biblical Eve was created from Adam's rib bone, then the metaphorical equivalent in the ADAM Professional Audio range of monitors would have to be the folded ribbon tweeter. ADAM has built its range upon the technological bedrock of ART (Accelerated Ribbon Technology), which can be found in all its high and midrange drivers. The self-powered nearfield A7 is the latest to employ this technology.

OUT OF & INSIDE THE BOX

ADAM (pronounced A-dam) is a German company and there's plenty of that Teutonic eye for detail in the solid and detailed finish of the A7s. The units consist of a conventional 6.5-inch mid/bass driver and an ART tweeter in a compact bass reflex-ported enclosure – more on the ART principle later. The front panel has a volume control and an illuminated power switch, while the rear panel provides balanced and unbalanced inputs along with a ±4dB tweeter level control and two room EQ controls at ±6dB <150Hz and ±6dB >6kHz. These controls are useful for fine-tuning the A7s to your room, providing a reasonable range of effective adjustment. The stated (and extended) frequency response of 46Hz–35kHz (±3dB) is an indication of the top-end performance of the ART driver. The A7s are bi-amp'ed with 2 x 50W (RMS)/80W (Peak) amplifiers crossed over at 2.2kHz that can provide plenty of SPL – 105dB at one metre; in fact – more than adequate for my control room, which is about 20sqm.

It's fair to say that what sets these and other ADAM products apart from the competition is the folded ribbon tweeter design, so a bit of an explanation as to the principles of operation involved is worthwhile.

CONCERNING CONCERTINAS

In 1972, Dr Oskar Heil developed the Air Motion Transformer (AMT). The AMT utilises a membrane folded into a concertina shape that squeezes air rather than the 'pumping like a piston' action of conventional drivers. One of the big advantages of the folded ribbon design is a 4:1 transformation ratio between the diaphragm and the air the diaphragm moves. What this means is that the air moves in and out four times faster than the folds itself are moving, providing greater efficiency and enabling higher sound pressure levels than other drivers of equivalent size. For those interested in the full technical details, there's an AES paper on the ADAM website – www.adam-audio.com/downloads/aes_paper.pdf. Suffice it to say, the folded ribbon design is a radical departure from other driver technologies with potentially many technical and sonic advantages over traditional driver designs. ADAM has fully embraced this technology and developed ART drivers for use in all of their professional and domestic monitors. But how do they sound?

THE A7 SOUND

I must confess to really liking the sound of these speakers. The clarity of the top end, the tight imaging and the more than respectable bass from a 6.5-inch driver was quite surprising. I found the ART drivers to be very smooth, not exhibiting harshness or distortions sometimes evident in metal dome tweeters. In the time that I've had the A7s, I've worked on a variety of jobs covering country, rock, choral and pop music, and in each case I thought the A7s revealed more high frequency detail and had a smoother tone compared to my other dome tweeter-style monitors. An unexpected advantage that I noticed while working on rock projects was the lack of hearing fatigue after prolonged listening at sometimes-elevated volume levels. As a side note, I happened to use the larger ADAM S3As for about six months earlier this year. These monitors are great for jazz and classical recordings, but are a bit lifeless when it comes to rock or pop. Compared to their elder and larger brethren, the A7s seem to have more impact when it comes to these styles of music, albeit from a much smaller enclosure.

ANOTHER AVENUE OF ENQUIRY

My studio is in the same building as Phil Punch's Electric Avenue Studios in Sydney. And being a bit of an ADAM fan, Phil borrowed the A7s as a monitoring alternative for a few days while he was mixing a piano boogie album. The first thing we noticed when we set them up in his substantially larger control room, was that they still generated sufficient SPL to sound loud within that sized space. After talking to Phil about his impressions of the A7s, I found that we had similar listening experiences. He felt the ribbon tweeters conveyed clarity and provided a stable audio image with a more revealing and smoother sound than his experiences with metal dome tweeters. Phil also noted that compared to horn-loaded compression drivers, the ribbon design had less distortion and there was a smooth transition between the cone driver and the ART tweeter. His only quibble was with the styling of the power switch, but he did like the blue power LED!

CUT TO THE RIBBON

Going by the size and price ($1999) of these monitors, the A7s are well within the reach of most project studios. Equally, these monitors would be just as at home in any moderate-sized professional control room or post-production facility (five of them with a sub would make a cost effective, great-sounding 5.1 surround setup).

It's quite likely that many readers won't be familiar with the sound of a ribbon tweeter. If that's the case, then you owe it to yourself to audition these monitors – they're compact, well-engineered, smooth, with good bass response, and not too pricey. ■

NEED TO KNOW

Price
$1999

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Pros
Cost effective.
Compact design.
Plenty of SPL for their size.
Smooth top end.

Cons
Small bass driver.

Summary
A great sounding, compact, self-powered monitor to suit many applications.