

ADAM F7

ADAM IS A GERMAN BRAND WHOSE NAME STANDS FOR 'ADVANCED DYNAMIC AUDIO MONITORS'. CHRIS BRYANT TRIES A PRO-ORIENTED ACTIVE MONITOR



The ADAM *F7* is an active studio monitor designed for near field programme monitoring. So what's it doing in a hi-fi magazine such as this? A principal reason is the sheer amount of technology that's available in this device for so little money: let's face it, £500 doesn't buy much hi-fi these days. However, here's a pair of speakers with a bespoke German-made ribbon tweeter and a sturdy 180mm (7in) bass/mid driver, complete with active crossovers and four channels of amplification, all for the price of a decent pair of interconnects.

Input sockets on the back of the speakers accept Jack, XLR or RCA/phono connections, and the rear-panel has controls for input-level with trim pots for adjusting both the high (above 5kHz) and low (sub-300Hz) frequency responses. The range of adjustment at both frequency extremes is +/-6dB. A toggle switch can bring in a high pass filter so that a subwoofer may be easily added, and ADAM makes a suitable unit. Naturally enough an IEC mains socket and an on/off switch are also provided.

Specified maximum SPL is better than 109dB at 1m, which is very loud. The active crossover and power amplifiers are integrated into the cabinet and an auto standby functions when no input is sensed, the front panel LED turning from green to red. The well finished aluminium back panel insert doubles as a heatsink for the amplifiers. As the X-ART tweeter

has a frequency response that extends up to 50kHz (-3dB), ADAM decided that if Pulse Width Modulation (PWM) Class D digital amplification was used, the necessary low pass filter would stifle the tweeters bandwidth and compromise the sound. The company therefore designed its own wideband Class AB solid state analogue amplifier, which is claimed to have ultra low distortion and an excellent damping factor, while a non-invasive filter curtails the response by 300kHz. The *F7*'s amplifiers are RMS rated at 40W for the tweeter and 60W for the woofer; the speakers weigh just 9kg each and have a two-year warranty.

The well made enclosure has excellent tolerances and the neatly fitting components give a sense of solidity. The functional black finish is to a high studio standard with no requirement for decorative grills. The main body has a fine textured finish, but the front panel has a far smoother satin finish. The front panel follows a familiar format, placing a centrally mounted tweeter above the bass/mid driver, itself above a plastic moulded flared slot port. The edges of the front baffle are chamfered to reduce edge diffraction effects. The conventional bass/midrange driver has a cone made from a fibreglass/paper combination, and has a high power 37mm voice coil.

The ADAM X-ART (eXtended Accelerating Ribbon Technology) tweeters have been developed from Dr. Oskar Heil's original Air Motion Transformer idea. The diaphragm is a pleated membrane made so that the folds compress and expand in sympathy with the applied audio signal so that "Air is squeezed out like the bellows of an accordion". The diaphragm does not therefore have the piston motion of conventional drivers, and ADAM says that the air is expelled from the folds at a greater rate than the diaphragm motion. Another claimed advantage over conventional tweeters is avoidance of the typical breakup distortion and dynamic limiting, while the pleated design increases the diaphragm area by a factor of 2.5 over the actual visible size. The strong output from the tweeter over a wide bandwidth allows a fairly low crossover frequency of 2.5kHz to be adopted. Other interesting aspects of the tweeter are very linear impedance and phase responses, and it also looks very small on the front baffle compared with the current norm.

CHRIS BRYANT

Sound Quality

The ADAM *F7* has been designed to supply usefully accurate near field monitoring at a very reasonable price, so the obvious thing to do is to start using the speaker in this mode. I tried them with a variety of CD players and DACs including the budget Musical Fidelity *V90* (£200) and the exotic MSB *Diamond DAC IV Select* (around £50,000), driven from both computer and disc drives. The only other requirement is a pair of decent interconnects and a good pair of stands. I dug out some old slate stands which brought the tweeter to ear level and provided a very stable support.

I rarely listen seriously to any hi-fi in the near field, and it takes a while to adjust to the situation, but it was immediately obvious that the ADAM was conspicuously faithful to the source in many areas. The active drive is very effective, resulting in a performance which sounds fast, detailed and has very good resolution – in fact unusually good resolution for anything at this price level. It sounds dynamic and interesting on complex rock material and can reveal subtle detail on simple pieces. It's easy to understand why it has gained success as a near field monitor in a studio environment because of these very positive attributes.

Used for the near field listening they can produce impressive soundstages with very good specific focus, image placement and separation, even on very difficult complex material. However, I don't always find them musically rewarding. The speaker volume can easily be turned up so they're played at a high level, which is tempting because they sound at their best here, but after a few tracks this can really seem too loud for long term listening, and it won't be too long before there's a potential risk of hearing damage.

Move the speakers into the medium and far fields and I found it necessary to alter the frequency response adjustments to compensate. The sound is not as transparent as a really good and much more costly amplifier/loudspeaker combination, and not much image depth is generated. After prolonged listening sessions I decided that it was just a bit too clinical, and that the ends of notes decayed a little too quickly for my taste. This more distant listening experience didn't seem as satisfying as nearfield working, and I tended to loose interest quite quickly. However, I normally use substantially more expensive gear that's carefully tuned to my taste, and when price and convenience are taken into consideration, the *F7*s are actually remarkably talented.

The tweeter seems good, and I noticed no obvious deficiencies here, but wasn't exactly wowed by the treble performance either. (I don't of course know if the tweeter was responsible, or the preceding

amplification, and it's obviously difficult to assess the audiophile credentials of the electronics, as the speaker would have to be dissected (and I don't think ADAM would have been happy about that.) The bass/midrange section seems very competent, though the system timing was certainly unspectacular. (Being reflex-loaded it'll never be the best in this respect anyway.) Blocking the port improved the musical timing but produced other obvious and unwanted effects, notably a loss of frequency balance.

Other listeners commented that it could sound a little coarse at times, and that extended listening could prove tiring. However, the *F7*s proved very articulate on speech. It substantially improved most television sound, and was also very good for listening to streamed digital internet radio. High quality mains leads did improve things (but seemed a bit irrelevant, as the leads I tried cost more than the speakers!). However, their inclusion did allow the tweeter to shine and show more of its potential.

Conclusions

The fact that I spent time comparing the *F7*s to much more expensive gear speaks volumes for the performance of these excellent little monitors. To build a system from conventional and similarly priced separates that's capable of matching their overall performance would prove exceptionally difficult. Indeed, I can't think of an amp/passive speaker combination that can come close to doing what the ADAM *F7*s do, especially if listening in the near field. Even for the far field I struggle to think of similarly priced gear that could challenge these little active monitors effectively, and they can also go very loud. Given their balance of sonic virtues, and taking ease of use into account, I must conclude that the ADAM *F7* deserves a very enthusiastic recommendation.

**HIFICRITIC
BEST BUY**

Size (HxWxD)	321x225x266mm
Weight	9kg
Bass unit	177mm (7in) driver with glass fibre/paper cone; 37mm voice coil
Tweeter	X-ART pleated AMT; 42mm equiv. diaphragm
Amplifier	Bass/mid 60W, treble 40W RMS
Frequency Response	approx 44Hz-50kHz
Crossover Frequency	2.6kHz
Available Finishes	Textured, satin black
Inputs	RCA/phono or XLR analogue
Price	c£480/pair



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