

Tech // reviews

ADAM AUDIO A77X POWERED STUDIO MONITORS

Accurate and Transparent Three-Way Speakers



Adam Audio's A77X shares its lineage with the company's popular A7 and A7X monitors, but it's the first loudspeaker in the AX-Series designed for a horizontal orientation—making it a candidate for console-top use in medium-to-large control rooms. The A77X employs the same woofer and tweeter used in the A7X, but it is not simply an A7X repackaged on its side. The A77X employs dual 7-inch woofers constructed from glass-reinforced carbon fiber (versus the A7/A7X's single 7-inch driver) and is capable of achieving a maximum SPL greater than 122 dB, far more than the A7X's stated max SPL of 114 dB.

INSIDE AND OUT

The A77X is not a typical three-driver loudspeaker. Both woofers operate from a lower limit of 38 Hz up to approximately 400 Hz. One of the drivers rolls off above 400 Hz, while the other continues producing midrange up to 3 kHz. This accomplishes two things: First, it keeps the crossover points (and the associated phase shift and crossover-induced distortions) out of the frequency range where the human ear is extremely sensitive; and second, it minimizes midrange interference and the possibility of comb filtering between the two 7-inch drivers. Each woofer is driven by its own 100-watt amplifier, and low-frequency response is enhanced through use of two front-panel ports.

ADAM's patented X-ART (Accelerating Ribbon Technology) tweeter handles the A77X's high-frequency range. Based upon principles behind the Heil Air Motion Transformer, the X-ART diaphragm uses a pleated ribbon that expands or contracts with

the audio input, squeezing air in and out like a bellows. Folding the diaphragm more than doubles its radiating area versus a cone or dome of similar footprint, yielding higher acoustic output while increasing efficiency and dynamic range. The frequency response of the X-ART extends out to 50 kHz, and though you may not be able to hear quite that high, such extended response generally means more linear phase response within the range you can hear. A 50-watt amplifier powers the tweeter, bringing the total onboard power to 250 watts per cabinet.

The A77X monitors do not feature a grille. In addition to the transducers and ports, the front panel is home to a power switch, LED indicator and a level control. The corners of the front panel are beveled to reduce diffraction. On the rear panel are RCA and XLR input connectors, an IEC power inlet, and three response-tuning controls: high shelf at 5 kHz (± 6 dB), low shelf at 300 Hz (± 6 dB) and a tweeter gain control (± 4 dB). The level control varies from $-\infty$ to +14 dB and has a detent at 0 dB—a smart design feature given the fact that there is no provision for stereo-linking the volume controls. Since the power switch is independent of the level knob, volume setting is maintained when the cabinet is turned off. Though the two speakers in a pair appear identical, they are not. They are symmetrically paired, the one labeled "A" serving as the left monitor and the one labeled "B" serving as the right (this is not clearly defined in the manual but is indicated in a Tech Tips paper available on the ADAM Audio Website). This arrangement puts the midrange drivers on the inside of the pairing, preserving the stereo image.

SONICALLY SMOOTH

I set up the A77Xs on the console top in my control room, orienting the cabinets as recommended. Other than to hear their effect, the contour controls were set to '0'. Audio was fed via the XLR inputs from sources including a Metric Halo Labs LIO-8, Yamaha 01V96i, Alesis Masterlink and MOTU 2408Mk3, all through a Dangerous Music Monitor ST. The level controls on the A77Xs were set to 0 dB, and volume was controlled using the Monitor ST. I allowed the A77Xs roughly 20 to 25 hours of "run-in" time, feeding them music or pink noise.

Before doing any sessions with the A77Xs, I listened to projects I engineered in the past and some sessions that were in-progress. I monitor at SPLs in the high-70 to low-80dB range (C-weighted), and the first thing I noticed about the A77Xs is that you don't need to listen loud to "get them going." Low-frequency extension is apparent and controlled even at low levels, and the tonal quality didn't change much as volume level varied. The A77Xs effortlessly produced SPLs at which I would never listen for extended periods of time. High frequencies were crisp and present, but never harsh, and the A77Xs reproduced plenty of detail.

It was this ability to reveal detail that made the A77Xs so useful during tracking sessions. When tracking I want to hear as much of what a microphone is capturing as possible. If there is a light fixture buzzing in the background, a squeaky kick-drum pedal or other extraneous noise, it has to be recognized and fixed at the source. The A77Xs excelled in that department. They also produced usable output down to 40 Hz.

Mixing on the A77Xs was a pleasure because they didn't cause fatigue during long sessions and

PRODUCT SUMMARY

COMPANY: ADAM Audio GmbH

PRODUCT: A77X Active Monitor

WEBSITE: adam-audio.com

PRICE: \$2,798 per pair

PROS: Accurate and transparent. Translates mixes well to other systems. Easy on the ears during extended sessions. 5-year warranty.

CONS: No stereo link for volume control.

they have no trouble resolving complex mixes. For example, when working on a ballad, I had a dry kick drum but the snare had a considerable amount of reverb. The A77Xs put the kick up front but simultaneously produced the depth and width of the snare 'verb well beyond the plane of the cabinets. At the same time, imaging was great: the hi-hat and ride cymbal were positioned exactly where they were supposed to be, while the phantom center was rock-solid. On another mix the A77Xs produced low synth notes with authority while maintaining the delicate transients of a

lightly strummed acoustic guitar. Mixes done on the A77Xs translated very well to other systems, and my ability to judge ambient content in mixes (room sound, delays and reverbs) was better on the A77Xs than on other monitors.

SHOULD THESE BE YOURS?

If you are considering the purchase of a pair of monitors in this price range, you really need to hear the A77Xs. They combine all the attributes required for a studio "main" monitor: They can play plenty loud, maintain linearity at a wide variety of volume levels, reveal sufficient information such that they can be trusted for a tracking session, and mixes that are made on them translate well when heard outside of the studio. They have usable output down to 40 Hz, yet are not much bigger than the "bookshelf"-size monitors so en vogue these days. Couple those attributes with the built-in amplification, and they're practically a bargain.

Steve La Cerra is an independent audio engineer and Mix's Sound Reinforcement Editor.

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