

Athena Technologies AS-F2 loudspeaker

I have always had an affection for speakers designed and manufactured by the Canadian conglomerate Audio Products International Corp. (API), which markets speaker designs under the names Mirage, Energy, and Athena. In fact, it was 20 years ago that API created the first budget speaker that really caught my attention, the Mirage 350. At the time, the 350 was the only budget speaker I'd heard that sounded open, musical, and detailed without seeming bassy. (A larger successor, the 460, was for many years my reference home-theater speaker.) Although I've been impressed with many other API designs I've heard over the years at friends' houses, press events, and hi-fi shows, it had been more than a decade since I'd formally reviewed one of API's product.

The AS-F2 floorstanding speaker is the flagship of Athena's new, affordable Audition series, which encompasses five models ranging from \$179 to \$599/pair. Before the speakers even arrived, Budget Bob's juices were bubbling at the thought of reviewing the most expensive speaker in a product line that tops out at only \$599/pair (the old "design in North America, build in China" trick). But when the Athenas arrived, I scratched my head. At 3 1/2' tall and 51 lbs, the attractive, formidable-looking, silver-faced AS-F2 doesn't look like a \$599/pair speaker—and at \$6/lb, it costs a fraction of what I pay for dry-



Athena Technologies Audition AS-F2 loudspeaker

aged sirloin (\$24/lb from Bryant and Cooper in Roslyn, New York).

Athena's Audition speakers are the brainchildren of designers Gord Van Kessel and Carmine Gitto, the team responsible for the highly popular Energy Take 5.2 home-theater system and the Sound Dynamics RTS bookshelf line. The AS-F2 features a 1" Teteron

(manmade silk) dome tweeter with a 70mm ferrite magnet and two 8" woofers with 1" voice-coils, injection-molded cones, and rubber surrounds. The drivers are mounted on a 1"-thick front baffle in a braced cabinet with 3/4" panels. The designers chose a relatively low crossover point of 2kHz to optimize dispersion. The shielded, front-ported cabinet sits atop proprietary composite spiked feet.

Big speakers, little price... big sound?

Immediately out of the box, the Audition AS-F2s presented an open, detailed, coherent, and neutral sound that reminded me of much more expensive floorstanding speakers. On *Bill Frisell with Dave Holland and Elvin Jones* (Nonesuch 79624-2), the slightly processed sound of Frisell's electric hollow-body archtop guitar was naturally woody and reverberant, as he sounds live, and Holland's bass was clean and properly defined, with just the right amount of warmth. Jones' cymbals were natural, with the requisite snap and metallic presence, but not "oversizzled."

The better the recording, the more the Auditions "disappeared." One of the most transparent solo-guitar recordings I've heard is Mark Ribot's *Saints* (Division One/Atlantic 83464-2). The detail and warmth of the lower strings of Ribot's closely miked, finger-picked electric guitar were readily apparent, and the microdynamics were so realisti-

Description: Two-way, reflex-loaded, floorstanding loudspeaker. Drivers: 1" "Teteron"-dome tweeter, two 8" plastic-cone woofers. Crossover Frequency: 2kHz. Frequency response: 35Hz–20kHz, ±3dB. Sensitivity: 93dB. Power handling: 250Wpc.

Dimensions: 41.5" H by 9.5" W by 15.5" D. Weight: 51 lbs each.

Finish: Black ash.

Serial numbers of units reviewed: 0446825 & 6.

Price: \$599/pair. Approximate number of dealers: 150.

Manufacturer: Athena Technologies, a division of Audio Products International Corp., 3641 McNicoll Ave., Toronto, ON Canada M1X 1G5. Tel: (416) 321-1800. Fax: (416) 321-1500. Web: www.athenaspeakers.com.

cally reproduced that I could visualize the positions of his hands. From my notes: “Engaging! Vibrant! Involving!”

The detailed and natural midrange reproduction of the Athenas made them ideal for vocal recordings. I’ve seen jazz vocalist-pianist-composer Dena DeRose several times in concert (why has this multi-talented treasure not yet achieved the attention she deserves?), and her vocals on *I Can See Clearly Now* (Sharp Nine CD 1018-2) were reproduced with the immediacy and subtle dynamic articulation of her live shows. On her original composition “With a Smile,” the vibes solo rang with bell-like natural clarity and the requisite percussive attack, but with no unnatural sharpness.

On material with considerable high-frequency content, however, the AS-F2’s perspective was a bit forward. The speakers were not bright or edgy, but during

solo passages of higher-register instruments on classical recordings, for example, the effect was similar to moving five rows closer to the stage. This gave an attractively lively quality to the reproduction of electric-guitar-based rock recordings, but made brightly mixed DVD soundtracks a bit in-your-face. However, the reproduction of string tones from well-recorded chamber music was the most natural of any speaker I’ve heard for under \$1000/pair. Even with such “difficult” composers as Tomiko Kohjiba (*Festival*, Stereophile STPH007-2) and John Zorn (*The Circle Maker*, Tzadik 7122), violins and cellos had the requisite bite and attack, but were not fatiguing over long listening sessions.

The Athena’s forceful, dynamic midbass had a warm emphasis but did not interfere with the music’s dynamic articulation or pacing. My acid test for

midbass definition is the heavily mixed bass synthesizer ostinato used on Sade’s *Love Deluxe* (Epic EK 53178). Through the Athena this sounded quick, linear, and well-defined, despite the midbass warmth. Below the midbass region, the speaker just kept going and going.

The Athena AS-F2 was the first speaker I’ve heard for less than \$2000/pair—let alone \$599/pair—that could compete with more expensive floorstanders in definition, articulation, and timbre down to the 30–40Hz region. For the first time in my listening room, I heard the organ-pedal passages in John Rutter’s *Requiem* (Reference RR-57CD) breathe as naturally as I’ve heard them do through my Alón Circes (\$12,000/pair).

The AS-F2s loved percussion recordings. Their flawless reproduction of low-level dynamic articulation and tran-

Measurements

The Athena AS-F2 turned out to be much more sensitive than usual, at an estimated 93.5dB(B)/2.83V/m. Not only will it therefore play loudly with relatively low-pow-

ered amplifiers, but its plot of impedance magnitude and phase (fig.1) reveals it to be an easy load, with a minimum magnitude of 4.5 ohms in the lower midrange. The electrical phase angle gets a bit high in the upper bass, but the magnitude remains at 6 ohms or above, which will ameliorate any potential drive difficulty. The severe glitches in the impedance plots between 100 and 200Hz and around 450Hz, however, imply the presence of cabinet resonances.

Fig.2 is a waterfall plot calculated from the output of a simple plastic-tape accelerometer fastened to one of the enclosure side panels. A number of

high-level resonant modes can be seen, the highest in level lying at 535Hz, 290Hz, and 156Hz. These modes could be found on all the AS-F2’s panels, and given the large radiating area of these surfaces, they will have an audible effect. Certainly, in my very limited auditioning of the Athena, I was aware of some congestion in the lower mids, which is what I believe BJR is referring to as “warmth.”

The saddle at 34Hz in the impedance magnitude trace indicates the tuning of the large port. This is confirmed by the sum of the twin woofers’ nearfield responses, shown to the left of fig.3, which has a sharp

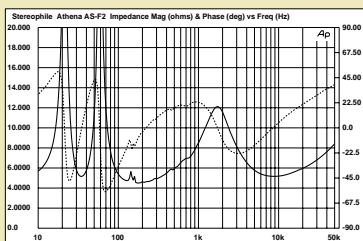


Fig.1 Athena AS-F2, electrical impedance (solid) and phase (dashed). (2 ohms/vertical div.)

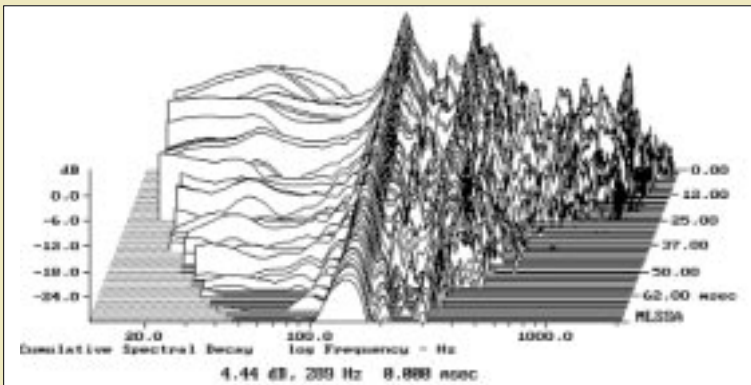


Fig.2 Athena AS-F2, cumulative spectral-decay plot calculated from the output of an accelerometer fastened to the cabinet’s side panel 12” from the top. (MLS driving voltage to speaker, 7.55V; measurement bandwidth, 2kHz.)

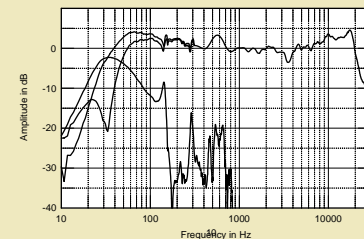


Fig.3 Athena AS-F2, anechoic response on-axis at 50”, averaged across 30° horizontal window and corrected for microphone response, with the nearfield woofer and port responses and their complex sum plotted below 300Hz, 300Hz, and 850Hz, respectively.

sients with percussion instruments of all timbres and frequency ranges made them seem to disappear with such good recordings as John Cage's *Third Construction* (from *Pulse*, New World/Classic NW 319, LP).

Before firing up the Athenas, I'd suspected that their large cabinets would make it difficult for their soundstaging to compete with that of minimonitors. But after comparing the AS-F2s with three pairs of such speakers, I concluded that my suspicion had been unfounded. With well-recorded classical or jazz such as Stravinsky's *The Firebird* with Dorati/LSO (Mercury Living Presence/Classic LP, SR 90226), and the Art Ensemble of Chicago's *Message to Our Friends* (Get Back/BYG GET 328†) — recordings that allow components to show off their soundstaging

abilities — the Athenas reproduced a wide, deep stage with well-defined images and holographic bodies.

In addition to the AS-F2's low-bass

The AS-F2s loved percussion recordings.

extension and definition, its high-level dynamic articulation also bettered that of any speaker I've heard for under \$2000/pair. When I was unable to use my normal reference recordings to detect the Athena's upper dynamic limit, I brought in my SWAT team. First, I cued up Human League's "Don't You Want Me" (Virgin 41612) to disco lev-

els. The synth blasts and drum machines twitched and writhed with nary a sense of strain, and this former Linnie couldn't keep his toes from tappin'. I then reached for the A-bomb: King Crimson's *Thrak* (Virgin 40313), which I cued to rock-concert levels: well in excess of 100dB. The initial dynamic blast scared the hell out of my dog, who began barking continuously (which I couldn't hear). But with no trace of strain or distortion (or damage, thank goodness), the speakers didn't flinch.

Athena faces a potential marketing challenge in the AS-F2. In order to fully appreciate what these remarkable gems can accomplish in low-bass reproduction and high-level dynamics, the speaker needs to be mated with electronics of higher quality and price than one would normally associate with a \$599/pair

† Available from The Tweak Shop, (707) 575-8626.

Measurements

notch at the same frequency. The port's output is the lowest trace in this graph; while it covers the expected passband, there are some severe peaks evident at the same frequencies of the resonant modes in fig.2. These resonances are high enough in level that they give rise to glitches in the woofers' output. The speaker's output appears to rise in the bass region, but this is an artifact of the nearfield measurement technique. The speaker's reflex tuning is actually well-balanced between bass definition and extension.

The AS-F2's farfield response on the tweeter axis is shown to the right of fig.3. The midrange and low treble are flat, apart from a slight peak between 500Hz and 700Hz, which correlates with the forward balanced noted in the auditioning. There is also a slight rise in the top audio octave. Whether this contributes to audible coloration will depend on the speaker's dispersion in the same region. Fig.4 reveals that the tweeter becomes quite directional above 8kHz, which will tend to balance the on-axis excess of energy in average-sized rooms. The AS-F2's radiation pattern tends to narrow at the top of the woofers' passband, but not to the degree that I would have expected. In the vertical plane (fig.5), the speaker's response changes quite significantly if the listener moves much above or below the 38"-high tweeter axis.

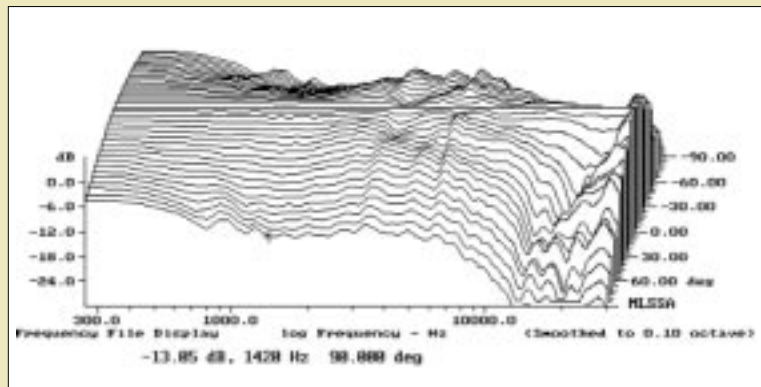


Fig.4 Athena AS-F2, lateral response family at 50°, normalized to response on tweeter axis, from back to front: differences in response 90°–5° off-axis, reference response, differences in response 5°–90° off-axis.

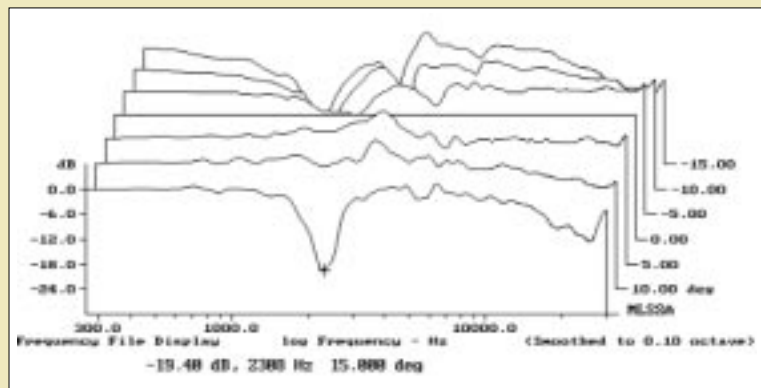


Fig.5 Athena AS-F2, vertical response family at 50°, normalized to response on tweeter axis, from back to front: differences in response 15°–5° above axis, reference response, differences in response 5°–15° below axis.

speaker. At a minimum, I recommend something along the lines of a Creek 5350SE integrated amp (\$1500). In fact, I found the AS-F2's performance improved further when mated with my combo of Audible Illusions Modulus L1 line stage and Audio Research VT100 Mk.II power amp. But even with this "hidden cost," the AS-F2 is a bargain; with the right electronics, the Athenas might compete with speakers costing as much as \$2000/pair.

Speaking of the competition...

I compared the Athena AS-F2 with the Polk Audio RT25i (\$319/pair), the Jmlab Chorus 706 (\$450/pair), and the Alón Petite (\$1000/pair).

The Polk RT25i's midrange was as involving and natural as the Athena's, with excellent low-level dynamic articulation, but was a shade more transparent and intimate, particularly on vocals and

piano, and the Polk's high-frequency reproduction was a bit more articulate and extended. The RT25i couldn't approach the Athena in bass extension or high-level dynamic reproduction, but sounded a bit more natural in the mid- and upper-bass regions.

The Jmlab Chorus 706 had an

Athena Technologies' remarkable AS-F2 exceeded what I thought possible for its price.

equally intoxicating midrange reproduction, if a hair sweeter, but was a bit more detailed and airy in that region

than the Athena AS-F2. High frequencies were a bit more soft and rolled-off through the Jmlab, and its midbass reproduction was even warmer than the Athena's, although, once again, its high-level dynamics and bass extension could not compare with the Athena's. Ultimately, the Jmlab struck me as more intimate and organic than the Athena, despite its colorations.

The Alón Petite was the most articulate, detailed, and transparent of the pack, particularly in its neutral mid-range and extended and detailed high frequencies, but was far inferior to the Athena in bass extension and high-level dynamic authority.

Hats off to our Canadian brethren

I was thrilled to have spent time with Athena Technologies' remarkable AS-F2, which did so little wrong and, in certain areas, far exceeded what I thought possible for its price — or even twice its price. I congratulate the design team of Athena/API for being able to pull this off. My one caveat is that, to fully appreciate the AS-F2, one must not hesitate to spend the necessary dough on associated equipment of sufficient quality to fully realize the speaker's capabilities. In my view, that would be money well spent. ☒

The Athena's step response (fig.6) is absolutely normal, with all the drive-units connected in the same positive acoustic polarity. The cumulative spectral-decay plot (fig.7) is

surprisingly clean for a speaker at this price, with very little hash apparent. This is presumably why BJR was so impressed by the Athena's upper-frequency clarity.

It looks as if the Athena design team has maximized the AS-F2's bass performance. Apart from the enclosure resonances I found, they don't seem to have compromised performance in other areas to produce a speaker that is very competitively priced.

—John Atkinson

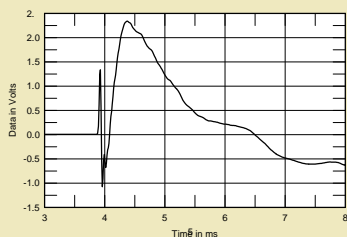


Fig.6 Athena AS-F2, on-axis step response at 50" (5ms time window, 30kHz bandwidth).

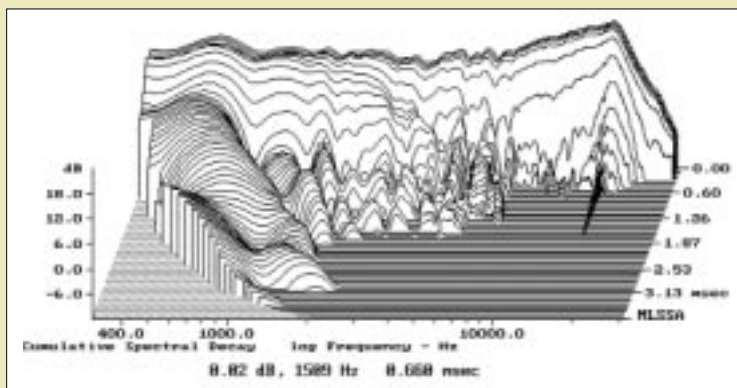


Fig.7 Athena AS-F2, cumulative spectral-decay plot at 50" (0.15ms risetime).

Associated Equipment

Analog sources: VPI TNT IV, Rega Planar 3 turntables; Immedia, Syrinx PU-3 tonearms; Koetsu Urushi, Clearaudio Aurum Beta S cartridges.

Digital sources: California Audio Labs Icon Mk.II Power Boss, Creek CD53 Mk.II CD players; Pioneer DV-333 DVD player.

Preamplification: Vendetta Research SCP-2D phono stage, Audible Illusions Modulus L1 line stage.

Amplification: Audio Research VT100 Mk.II power amplifier; Creek 5350SE, JoLida JD-101A integrated amplifiers.

Loudspeakers: Polk Audio RT25i, Jmlab Chorus 706, Alón Petite.

Cables: Interconnect: MIT MI-350 CVTwin Terminator, MI-330SG, Terminator 2. Speaker: Acarian Systems Black Orpheus.

Accessories: Various by Salamander Designs, VPI, Simply Physics, Bright Star, ASC, Sound Anchor.

—Robert J. Reina