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Equipment Reviews

Moon by Simaudio Evolution 760A Stereo Amplifier

Reviewers' Choice Just over a decade ago, Simaudio introduced their Moon Evolution series: a no-holds-barred line of products representing the pinnacle of what this highly regarded Canadian company has to offer. Within the year, Jeff Fritz had reviewed three Moon Evolution models -- the P8 preamplifier, the Andromeda CD player, and the W8 stereo amplifier -- and awarded each what was then Ultra Audio's Select Component status (now Reviewers' Choice). And he kept the P8 as his reference preamp. Shortly thereafter, our founder, Doug Schneider, reviewed the Moon SuperNova CD player, gave it a Reviewers' Choice award, and made it his disc spinner of choice.

Since then, the Moon Evolution line has expanded threefold, into a plethora of highly reviewed integrated amps, phono stages, line stages, DACs, and a supplemental power supply designed to drive any of the aforementioned components apart from the integrated amplifiers and flagship 850P preamplifier. There are also five Moon Evolution power amplifiers: a colossally powerful monoblock, a highly configurable multichannel amp, and three stereo models, the most modest of which, the 760A, is the topic of this review.



Alluring aluminum

Out of its packaging, the Moon Evolution 760A (\$8000 USD) is a visual playground embodying much of the original Evolution aesthetic, with some subtle differences. Take, for example, its stature: the 760A stands just 4" tall, stretches 18.8" wide, and displaces 18.1" of depth -- it will easily fit on most cabinet shelves or amp stands. Its solid aluminum case is exquisite in its assembly, and is offered in three color schemes: all silver, all black, or black faceplate between silver "cheeks," as Simaudio calls them. When I lifted the 760A, I was immediately made aware of its density: it weighs a hefty 45 pounds. As in a high-end automobile, there's been no faking of quality materials: no plastics painted to look like aluminum, no cheap metals finished to imitate expensive ones. If something on the 760A looks expensive, it is. An exploded view of the 760A's slim Evolution case would reveal that most of the parts comprising the exterior are machined from solid aluminum; this was done in Simaudio's own five-axis CNC machining center. The top plate, perhaps the sexiest panel on this amplifier, is hewn from a solid slab of aluminum and is chamfered at the edges to give it an elevated

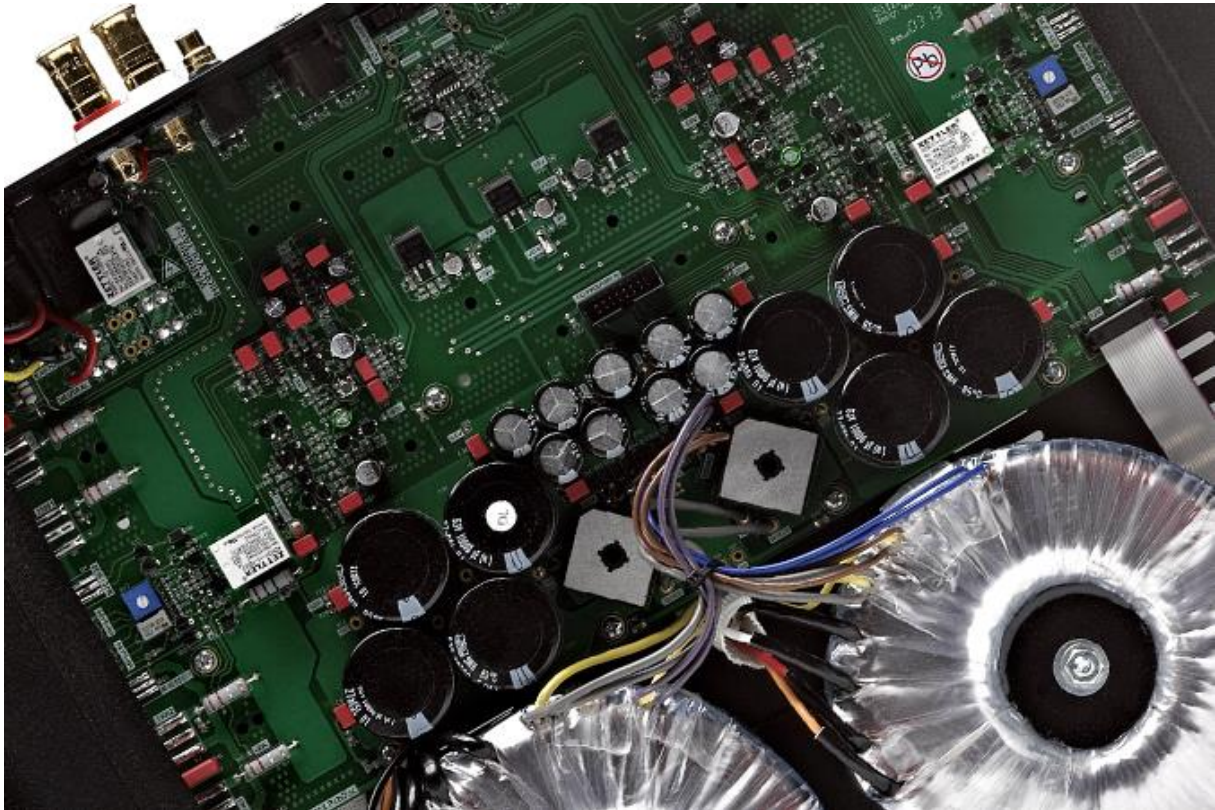
appearance. Generously vented toward the rear, toward the front this top plate is adorned with an embedded plaque showcasing an engraved Moon logo and name. Running the length of the 760A's sides are lateral heatsink fins extruded from solid aircraft-grade aluminum. Much like the top plate, the heatsinks are bead-blasted, anodized, covered with heat-resistant paint, then clear-coated off-site by local suppliers before being sent back to Simaudio for final assembly -- as are the 3/8"-thick faceplate, cheeks, bottom plate, and rear panel.



The 760A is a provocative-looking amplifier. Positioned top center on the faceplate is another polished Moon logo, "Moon" printed directly below it. Below that, a single blue LED indicates the status, On or Standby, of the matte-finished pushbutton directly below it. The model name is silkscreened in small letters in the faceplate's lower left corner. On the bottom plate are four newly designed, conical, screw-in feet of chrome-plated steel; their flat bottoms, thankfully, do away with the spike-and-puck design of yesteryear.

As you face the rear panel, at the far left are the RS-232 communication and 12V trigger in/out ports; at far right are a fuse bay, hard On/Off power toggle, and IEC power inlet. The center of the rear panel is home to two pairs of symmetrically placed, gold-plated, high-quality WBT output terminals designed to enable biwiring and accept banana plugs, spades, or bare wire. Between these are single pairs of gold-plated unbalanced inputs (RCA) flanked by balanced inputs (XLR).

For a look under the 760A's hood, I removed its top panel. But to better understand what I was looking at, I enlisted the help of Simaudio's manager of public relations and marketing, Lionel Goodfield. He began by explaining that the Moon Evolution 760A is a "no overall feedback" design largely based on the amplification section of the Moon Evolution 600i integrated amplifier. A fully balanced differential design from input to output, the 760A has a unique pair of 0.5kVA toroidal transformers. These transformers are said to have a very low regulation factor, which, Simaudio claims, results in minimal voltage drop with increasing current draw. Each transformer supplies enough juice to power four of Simaudio's proprietary, ideally matched (so they say) bipolar output transistors to produce 130Wpc into 8 ohms, or 260Wpc into 4 ohms, or 500Wpc into 2 ohms. In bridged mode, the 760A can be used as a monoblock to produce a stout 500W of power into 8 ohms. Its power-supply capacitance is said to be 80,000µF.



Goodfield mentioned something intriguing: Both the 760A's transformer design and output transistors are shared by all Moon Evolution amplifiers, including the flagship 880M monoblocks (\$48,000/pair). Other than the cases, the only significant changes among all Moon Evolution two-channel amplifiers are the size of the transformers, and the number of output transistors used in each application. This explains why the specifications of total harmonic distortion (THD) of less than 0.015% from 20Hz to 20kHz at 1W and 0.04% at full power remain consistent throughout the line. It also partially explains why the intermodulation distortion of all Moon Evolution amps is claimed to be "unmeasurable." Other pertinent differences between the 760A and its bigger brothers are that the 760A has a slightly lower signal/noise ratio -- 104 instead of 106dB -- and a slightly higher output impedance of 0.03 ohm, which correlates with its lower damping factor of 267. Goodfield noted that the marginal difference in noise is due to the fact that the 760A's case is roughly half the size of the larger models', which means that its component parts are packed much more closely together.

Designed to be left powered up at all times, the 760A's circuitry is fully symmetrical, and uses four-layer printed circuit boards with heavy tracings of pure copper and short signal paths, to minimize noise in the signal path. The signal path itself is capacitor free, which is said to aid transient response. The 760A is designed to provide pure class-A power for the first 5W of output, then switch to class-A/B as power demands increase. To help protect against such problems as a fault or overheating, Simaudio has included a self-diagnosis system to detect the presence of any DC in the input signal and, when it does, to shut the amplifier down.

Setup

Throughout this review, and despite the 760A's protective circuitry, I made sure to turn everything off when swapping it with my Classé Audio CAM-300 monoblocks. I have my two-channel system integrated into a home-theater system using the bypass feature of my Moon Evolution P8 preamplifier, and accordingly segregated from my Ayre Acoustics C-5xeMP universal player, Simaudio MiND streamer, and Calyx Femto DAC, each connected via the latest Analysis Plus Silver Oval interconnects. The same balanced cables feed all amplifiers, and my Rockport Technologies Atria speakers are connected using Kimber Kable Select 6063 speaker cables. All electronics are fed power via Cardas Clear Beyond power cables by a Torus AVR20 power conditioner hooked up to a dedicated 20A line. When all of this was set up, I was pleasantly surprised to find that I didn't have to rerun Audyssey's room-optimization software through my Marantz AV8801 preamplifier-processor to correct for the negligible difference in output when watching movies.

Aural delight

Listening to the Moon Evolution 760A straight out of its box, I thought it sounded a bit sterile -- but I knew that my review sample was brand new, and had not been broken in at all. So I set the Moon Evolution P8's volume at a moderate level and let rip the Simaudio MiND streamer on continuous playback for about a week before sitting down to hear what the 760A had to offer.

First observation: The 760A was just lukewarm to the touch. With roughly 175 hours of continuous play under its belt, any signs of sterility were things of the past. What remained was an amplifier that had matured into a refined little powerhouse -- it reminded me of stories my father used to tell about his adventures in the muscle-car era. He'd owned several iterations of highly underrated Detroit muscle himself, and the usual topics of these tales were his victories in quarter-mile races. It was the way he described the looks of astonishment on his opponents' faces that tied these stories to the Simaudio -- their bewilderment was akin to what I felt as I listened to the audible results of the muscle under the 760A's hood.



Out of the gate, the Simaudio had me locked in my chair. The extent of the 760A's resolve, in combination with its ability to extend the boundaries of my room farther than ever before, was jaw dropping, and exceeded that of even my reference Classé CAM-300s (\$11,000/pair). With all genres of music, soundstaging was consistently massive yet clean, neutral, and full of tonal shadings. Instruments, images, and nuances were delineated with mesmerizing levels of clarity and focus. These observations were driven home by the live recording of "Hotel California" on the Eagles' Hell Freezes Over (16-bit/44.1kHz FLAC, Geffen) -- I was able to appreciate the nuances of each instrument more easily than I'm accustomed to. Plucks of each string of Glenn Frey's acoustic guitar were conveyed with truthful singularity, possessing precise leading-edge definition without sounding analytical. Even more alluring was the tightrope the 760A consistently walked between offering snappy transients and focused images while retaining the natural golden hue of the acoustic's strings.

As the intro went on, the 760A continued to excel at resolving minutiae I typically have to be careful to listen for. Slidings of Frey's pick, for example, sounded marginally larger and sharper. The beads in the maracas had more presence, which allowed me to differentiate them within their gourds that much more easily. When Don Henley's kick drum entered, I was so elated with the sheer levels of slam, density, and control with which the 760A delineated each kick of skin that I had to temporarily halt my listening session to swap in my Classé

CAM-300s for a quick baseline reminder. Side by side, the sounds of the two -- er, three -- amps were almost indistinguishable. Impressive, considering that the Classés are collectively almost three times the size, weight, and power output of the Simaudio, not to mention \$3000 dearer. There were subtle differences, though; the 760A's slightly warmer, fuller sound consistently translated into images and voices drawn with greater depths of tonal color and naturalness. The Simaudio also painted images with a hint more grandeur, giving me somewhat of a front-row vantage on the sound, as opposed to the Classés' slightly recessed and drier character. Henley's kick drum proved a perfect example of this -- through the Simaudio, it sounded larger and more organic, while the Classés struggled to balance their punchy authority with the same level of scale.



Supplementing Henley's kick drum was Randy Meisner's bass, which, again, was now easier to hear due to the Simaudio's slightly fuller, rounder bottom end. This isn't to say that the 760A lacked control, or sounded bloated or tubby in any way -- just the opposite. The fine balance between suppleness, control, and detail enunciated by the Simaudio allowed Meisner's bass to sound more alive, organic, and, ultimately, more enjoyable.

The 760A also did a remarkable job of defining the listening space. Not only could I hear images being formed beyond the confines of my side and front walls, I could hear people clapping beside me as I sat in my listening position. In fact, no matter what genre I listened to -- rock, jazz, pop, or electronic -- the 760A consistently excelled at projecting music into my room. This not only created the impression of a vaster soundstage, it provided an addictive sense of realism for each instrument and voice on stage. I found this particularly advantageous when listening to live recordings, or music in which the ability to hear the recording environment was clearly the engineer's intent.

Changing gears and digging deeper into the individual constituents of a few tracks proved a revealing and thought-provoking exercise. I began with "What a Shame," from Patricia Barber's *Café Blue* (24/88.2 FLAC, Premonition) -- a very well-recorded track with numerous instrumental nuances to focus on. This time, I focused predominantly on the thrashing of the brass during the instrumental break, as the dynamics can prove challenging for some amplifiers to convey convincingly. The 760A handled this passage with aplomb. Cymbals leapt out of the Atrias with impressive transient speed, impact, shimmer, and precision, sounding highly dynamic yet distinctly refined and finessed. While the Classés exhibited even greater levels of dynamic panache

and equal levels of decay, they couldn't quite match the Simaudio's naturalness in depicting each cymbal in space. This balance of spatial prowess, tonal accuracy, and lack of pretension was quickly proving to be a dependable trademark of the 760A. I liked it.



Later, while listening to Diana Krall's cover of Crowded House's "Don't Dream It's Over," from her latest, *Wallflower* (CD, Verve B0020989-02), I bore witness to a seductively realistic and transparent portrayal of her voice. The track begins with a brief, melodic piano solo that saturated my room, ostensibly erasing my speakers from existence. As the sound of Krall's piano seamlessly integrated with that of an articulately plucked acoustic guitar, her voice emerged center stage with remarkable image specificity and textural detail. Other amplifiers, including the Classés, have communicated similar levels of transparency and microlevel detail, but few, if any, have been able to so convincingly balance the rasp, breath, and depth of Krall's voice. This sensitivity to voices was also present when I listened to "I Only Want to Be with You," from Shelby Lynne's *Just a Little Lovin'* (16/44.1 FLAC, Lost Highway). Lynne's voice can have a somewhat dense or even faintly buried character through less-resolving amplifiers, masking the much-needed microlevel details required to preserve a sense of liveliness. The inherent transparency of the 760A allowed these details to be heard with ease, and in doing so laid bare the velvetiness of her voice. The nearly inaudible noise floor out of which emerged Lynne's subtle tonal fluctuations and dynamic variations of vocal intensity allowed me to hear deeper into this recording as well.

It was here that I began to understand why, the more I listened to music through the 760A, the more endearing I found it. Many amplifiers, good or bad, can be somewhat predictable in their sound, their consistent sonic characters enabling one to expect or predict what specific musical facets might sound like based on how others have been presented. For example, if an amplifier can convincingly communicate deep, powerful bass, one might also expect that amplifier to be able to easily handle dynamic swings. Likewise, if an amplifier sounds particularly transparent in the midrange, even bright, one might expect this quality to aid it in resolving microlevel details.

The 760A proved the antithesis of this analogy, throwing me curveballs every chance it got. For starters, I never would have guessed that the 760A would be able to tango as well as it did with a pair of monoblocks almost three times its size and might. The balance of transparency and liquidity exuded by the Simaudio could also

easily fool one into thinking one was listening to a high-quality tube amplifier, if it weren't for the silence of the noise floor reminding one that this is, in fact, a solid-state design. But none of this compares to how this diminutive amplifier could, with commanding authority, project into space three-dimensional images of a scale appropriate to the recording. I tried to get the 760A to clip as it drove my Rockport Atrias (sensitivity: 87dB) to levels I'm sure designer Andy Payor never thought probable, but I failed. Dismally. Instead, I heard from the system a highly controlled yet refined portrayal of whatever I had the guts to throw at it. The 760A deserves respect.

In summary

During my time with Simaudio's Moon Evolution 760A, I was reminded of what an exceptionally well-engineered and -constructed amplifier can provide, aesthetically and sonically. The finesse with which the 760A consistently balanced power, transparency, dynamics, tonal colors, and dimensionality, all against near-silent backgrounds, was spellbinding. It may strike some as being a tad pricey, considering its modest size and power rating, but its sound, flexibility, and ten-year warranty put this amplifier in an elite crowd of products that can serve as benchmarks for what the rest of the industry offers. Heck, even if you're not in the market for a new reference amplifier, go hear firsthand what the 760A has to offer -- it's the best-sounding standalone power amplifier I've heard for anywhere near its price of \$8000. Recommending it is a no-brainer.

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