

# the absolute sound

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## Audience ClairAudient The One Loudspeaker

The Sound of No Crossover

Steven Stone

The One, as you might infer from its name, consists of a single full-range driver shoehorned into a small box. The driver itself is the same unit that Audience uses in its flagship \$72,000/pair 16+16 speaker. Audience is unique in this regard; I know of no other speaker manufacturer that employs the same driver in all of its speakers from the smallest to the largest. Even more surprising is that when installed in a nearfield system, The One is capable of delivering almost as unobstructed a window into the original musical event as its larger sibling.

For readers who've never heard of Audience or its ClairAudient line of speakers, its beginnings go back to 1972 when Audience's president, John McDonald, met the late audio designer Richard Smith. Together they founded Sidereal Akustic Audio Systems, Inc., which was extant from 1979 to 1985. When design engineer Roger Sheker joined the company in 1997, Sidereal morphed into Audience.

From the beginning Audience's primary goal was to build a full-range-driver speaker without tweeters, woofers, or crossovers. Nine years of research went into developing a driver design that could accomplish Audience's sonic goals. Finally in 2009 Audience unveiled its first product, the ClairAudient 16 loudspeaker. The other models soon followed, including the 16+16, 8+8, 2+2, 1+1, and most recently The One.

### Tech Info

One single solitary driver system sans woofers, tweeters, and crossovers—what does that get you sonically speaking? In one word—coherence. The entire Audience speaker line is predicated on this premise. By eliminating the crossover all the sonic issues it causes vanish. Without the crossover circuit, phase issues at the crossover points vanish. Timing and group-delay problems introduced by a crossover's filtering components disappear as well.

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But there is no “free lunch” in physics. Eliminating the crossover puts greater demands on the speaker’s single driver. It’s very hard for one driver unit to produce a full-range signal with even power-handling throughout its frequency range. It is also difficult for a single driver to create an even dispersion pattern without beaming at higher frequencies.

Although Audience is understandably reticent to release too many specifics on the deep inner-workings of its proprietary “dual-gap motor” A3S driver, according to Audience, “the A3S has an exceptionally flat response from 40Hz (in certain optimized enclosures) to 22kHz ±3dB. No other single driver available today can deliver this kind of performance.”

The A3S driver cone is made of a titanium alloy combined with a concave dust cap made using constrained-layer damping to control high-frequency breakup modes. The total mass of the driver cone is only 2.5 grams. This low-mass cone is coupled to a patented oversize motor structure using neodymium magnets and a large voice coil. According to Audience the A3S has “12mm of usable excursion with less than 1dB compression at levels up to 95dB SPL.” Achieving this usable excursion requires an especially oversized spider made of “special materials” to reduce airflow obstructions to and from the voice coil.

The A3S driver has vents in its pole pieces to allow a more unobstructed airflow to and from the voice coil. This not only aids in cooling but also prevents turbulence created by the driver’s large excursions. Other key components in Audience’s A3S driver include the proprietary basket design and patent-pending S-shaped speaker-surround. This surround minimizes unwanted diffraction and allows for large excursions while maintaining uniform resistance on both sides of travel. The result is lower measured harmonic distortion levels.

Such a special driver requires an equally special enclosure. For The One speaker, Audience uses a small cabinet that has a large port with a passive 3.5"-diameter radiator on the rear panel. The box itself isn’t a rectangle or a square. Instead its front and back panels are angled, giving it a slight wedge-shape when viewed from the side. The cabinet is finished in gloss black, and has a single pair of five-way binding posts on the rear just below the passive driver.

## The Setup

Since The One was created for nearfield desktop use, that’s how I used it. The speaker itself is so small that without some kind of stand it will end up well below ear level when placed on a desk. I used the same pair of closed-cell, high-density “stands” that I employed for my ProAc Anniversary Tablette review as well as a pair of Ultimate Support adjustable speaker platforms to raise The Ones so the centers of the drivers were only two inches lower than my ear height. Audience also makes a small speaker support that raises the speakers slightly while angling them up. I tried these stands, but I preferred my solution because it delivered a slightly larger sweet spot and a greater degree of adjustability.

Although The One speakers will produce a remarkably cohesive and well-defined image almost regardless of how precisely they are set up, proper set-up geometry is critical to getting the most out of them. I recommend using a tape measure to ensure that the two speakers are precisely triangulated so they are both equidistant from your ears. Having one speaker more than an inch closer than the other can have an audible effect. Also the toe-in between the two speakers needs to match. I used Genelec’s free SpeakerAngle iPod App to put each speaker at exactly the same angle.

Although The One has a sensitivity of only 84dB at 1 watt,

I found that it mated well with a variety of amplifiers. During most of the review I used an Accuphase P-300 and a single April Music SI power amplifier, both of which had more than enough power to drive The One to ear-bleed levels. Near the end of the review I swapped these solid-state amps for a modified Dyna Stereo 70. Although only rated for 30 watts, this amplifier also had more than enough juice to drive The One to satisfying volume levels without a hint of compression.

## The Sound of The One

So what is the sound of one driver? First off, you get a level of cohesiveness to the sound that only a single driver can produce. If you’ve never heard a single driver speaker you’re in for a delightful surprise. The almost inevitable discontinuities between drivers are completely gone. There is also far less low-level noise and interference caused by crossover components. With no capacitors in the circuit to store (and retard) energy in the crossover region, music has a level of phase continuity that translates into a more believable and natural sound.

For listeners who’ve never heard a single-driver loudspeaker, a good aural corollary is what you hear from a single-driver headphone such as the Audeze LC-3 or Stax earspeakers. Both of these headphone designs employ a single full-range diaphragm. Like The One they don’t have a crossover, and like The One both these headphone designs have an effortless cohesion and consistent musical texture over their entire frequency range. Instead of a pieced together sound, The One has an entire frequency range cut from “whole cloth” with no seams, patches, or bridges between low, mid, and high frequencies.

## SPECS & PRICING

**Impedance:** 8 ohms (4 or 16 ohm versions available for an additional \$20)

**Sensitivity:** 84dB/IW

**Maximum RMS continuous output per pair:** 98dB

**Maximum RMS continuous power per speaker:** 25 watts

**Price:** \$995/pr.; accessory stands, \$75/pr.; product specific cable, \$249 for 5' pr.

1, Empirical Audio Off-Ramp  
5, Mytek 192/24 DSD DAC,  
Benchmark HGC DAC-2, Lynx  
HiLo DSD DAC

**Amplifiers:** April Music Eximus S-1, Accuphase P-300

**Speakers:** ProAc Anniversary Tablette, Role Audio Kayak, Aerial Acoustics 5B, Golden Ear AON 2, Velodyne DD+ 10 sub

**Cables and Accessories:**

Wireworld USB cable,  
Synergistic Research USB cable, AudioQuest Carbon

USB cables, PS Audio Quintet, AudioQuest CV 4.2 speaker cable, AudioQuest Colorado interconnect, Cardas Clear interconnect,

Black Cat speaker cable and interconnect, and Crystal Cable Piccolo interconnect

## AUDIENCE, LLC

120 N. Pacific Street, #K-9

San Marcos, CA 92069

(800) 565-4390

audience-av.com

## ASSOCIATED EQUIPMENT

**Source Devices:** MacPro model 11 Intel Xeon 2.66GHz computer with OS 10.6.7, running iTunes 10.6.3 and Amarra 2.5 music software

**DACs:** April Music Eximus DP



# Audience ClairAudient The One Loudspeaker - EQUIPMENT REPORT



Over the years I've heard many small footprint speakers in my desktop system that image well. Some, such as the Gallo A'Diva, which also has a small three-inch driver, do a very convincing disappearing act on my desktop. But no speaker has ever been as invisible or has vanished as completely as The One. When set up right, it simply doesn't exist; instead you hear music in a near-perfect three-dimensional soundstage. Perhaps it's a result of the direct coupling between The One driver and the amplifier's output stages. But almost regardless of which power amplifier I used, The One produced nearly identical soundstage characteristics. The depth changed only slightly when I went from solid-state to tube electronics. This was in stark contrast to some speakers whose dimensional character can change radically depending on amplification.

While on the subject of imaging and soundstaging, I must say The One produced a soundstage that was as large and as three-dimensional as I've heard from any speaker including the Joseph Audio Pulsars and Aerial Acoustics 5Bs. But unlike these two fine speakers The One created a larger listening window that remained stable even when I moved to the extreme left and right in my listening chair.

To see how well The One resolves information, I did a comparison between two of my own recordings of the Sibelius Violin Concerto. The first recording was made over 16 years ago using a DAT machine, while the other was made very recently using the Korg MR-1000 DSD recorder in 128x mode. Both were made in the same hall, using the same microphones in approximately the same location. Only the recorders and the microphone preamps were different. Listening to the two recordings through The One speakers, I was immediately aware of how much additional room sound and low-level information was on the more recent recording. While both recordings had quite specific lateral focus, on the newer recording all the instruments had greater physical presence and dimensionality. The solo violin on the newer recording had a distinctly defined location in three-dimensional space as well as far-better-delineated edges. The

spaces to either side of the solo instrument were "blacker" with a far greater sense of exactly where the violin's dimensions started and stopped.

Listening to these two recordings through The One, I also became aware of how much digital recording has improved when it comes to capturing extremely low-level sounds. On my old recording the music emerges from an artificial brick wall of digital blackness, while on the new recording you can hear the room breathe behind the music in a more realistic and analog-like manner.

Given the size of its single A3S driver, you would expect that The One might lack the dynamic drive of a two- or three-way speaker. But these speakers equaled the dynamic contrast range I'm used to hearing from slightly larger, more conventional designs such as the Role Kayak or GoldenEar Aon 2. When it came to micro-dynamics, The One bettered the conventional dynamic driver speakers by a good bit. The One seemed to give each instrument more dynamic speed and freedom.

One of The One's big sonic surprises was its harmonic balance. It just sounded right—not too warm and not too cool. The One is among the least colored transducers I've heard, period. If the recording was warm, The One passed that info along to my ears. If a recording had a peaky midrange, that was also painfully obvious.

Although The One has a full-range driver, it's certainly not a full-range speaker. Bass? You want bass? The One gives you some bass, but don't expect any rabbit punches to the solar plexus every time the kick drum hits. No, if you want some bass you need to use a subwoofer. But it had better be a good subwoofer. I used a Velodyne DD+ 10 subwoofer set for 65Hz crossover with The One. Once dialed in, the Velodyne DD+ 10 and The One proved a synergistic match. The Velodyne was quick enough to keep up with The One and The One's bass rolled off smoothly so that the upper bass and midbass remained clean.

One of the big complaints I hear about desktop systems, especially from classical music listeners, is that they never get the image size right. Whether playing a trio or an entire symphony orchestra, the instruments occupy the same amount of real estate between the speakers. With The One installed in my desktop system, the program material, not the speakers, determined the size and scale I heard. Mono recordings of Charlie Christian were dead center and about as wide as a quarter. My live symphony recordings had the full scope of Macky Auditorium including the reflections coming off the top of the proscenium. I recently recorded Rautavaara's *Cantus Articus*, which employs pre-recorded bird sounds. The speakers used for the birds were in mini-balconies, about fifteen feet up on either side of the stage. Through The One speaker it's easy to hear that the birds are coming from a much higher and more widely spaced physical location than the symphony orchestra.

## The One For You?

If you can't tell by now, I like The One speaker very much. Properly set up, The One is a world-class desktop monitor system. Although only \$1000 a pair, when you add in a high-quality subwoofer, your total speaker system cost could likely be around \$3k. But for that money, you'll have a desktop speaker system that delivers more musical information, more accurately, than many room-based speaker systems with far higher price tags.

The One ranks as the best dedicated desktop speaker I've heard. If you're looking for an exceptional small-footprint monitor, The One is simply a must-audit. **tas**