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LOUDSPEAKER FOCUS

ClairAudient 1+1 Personal Reference Monitor

1+1 = 3

Steven Stone



A couple of months ago I reviewed Audience's smallest speaker, "The One" in TAS. I thought it was one of the best desktop/nearfield speakers I'd ever heard, regardless of price or technology. So, when I was offered a chance to review "The One's" bigger brother, the 1+1, I was more than willing. If I had to sum up the 1+1 speaker in a single sentence I'd write, "It's 'The One' on steroids."

For readers who've never heard of Audience or its ClairAudient line of speakers, the company's beginnings go back to 1979 when Audience's president, John McDonald, met the late audio designer Richard Smith. Together they founded Sidereal Akustic. McDonald left Sidereal in 1986, and then teamed up with Smith in 1997 to form 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. Other models soon followed, including the 16+16, 8+8, 2+2, 1+1, and most recently "The One."

Tech Info

What does using a single, solitary, driver *sans* woofers, tweeters, and crossovers get you sonically speaking? The answer in one word is coherence. The entire Audience speaker line is designed to achieve this goal. By eliminating a crossover circuit, the sonic issues, such as phase anomalies at the hinge points, vanish. Also

the timing and group-delay problems introduced by a crossover's filtering components are no longer an issue.

But there is no "free lunch" in physics. Eliminating the crossover puts greater demands on the full-range driver. It's very hard to produce a full-range driver that has even power-handling throughout its frequency range. It is also difficult for a single full-range driver to create an even dispersion pattern without beaming at higher frequencies.

Although Audience is understandably reticent to release too many specifics on the inner workings of its proprietary "dual-gap motor" A3S driver, according to its Web site, "The A3S has an exceptionally flat response from 40Hz to 22kHz +/-3dB in certain enclosures. No other single driver available today can deliver this kind of performance."

The A3S driver cone is made of titanium alloy combined with a concave dust cap constructed with constrained-layer damping to control high-frequency break-up 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." To achieve this usable excursion requires an especially oversized spider made of "special materials."

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 diffraction and allows for large excursions while maintaining uniform resistance on both sides of travel. The result is lower measured harmonic distortion levels.

As you might suspect from its name, the Audience ClairAudient 1+1 uses two A3S drivers. One faces forward while the other is mounted on the back of the enclosure and fires to the rear. Both A3S drivers are in phase with each other. This bi-pole arrangement offers several advantages over the single-driver “The One.” First, having two drivers increases the 1+1’s

power-handling capabilities and its sensitivity. The 1+1 is 3dB more sensitive than “The One,” and can handle twice as much power (50 watts RMS rather than The One’s 25-watt suggested maximum). Second, the two-driver configuration extends the speaker’s low frequencies. The 1+1 cabinet also has a pair of passive drivers, one mounted on each side of the enclosure, which further augment the 1+1’s bass.

The 1+1 cabinet isn’t a rectangular box; instead it has non-parallel front and rear baffles as well as angled edges to reduce diffraction. The 1+1’s grilles are attached to the enclosure magnetically making them easy to remove and re-attach. Whether the 1+1 sounds “better” with the grilles on or off is a matter of taste, since the grilles have some effect on both imaging and overall harmonic balance.

The overall build-quality of the Audience ClairAudient 1+1 is quite luxurious, with a deep-black gloss finish on most of the cabinet that is complemented by the rich wood grain of the side panels. The 1+1 rear panel sports a single pair of five-way gold-plated binding posts (there’s no point in bi-wiring a full-range driver). My only quibble with the 1+1’s physical configuration is that it would have been a nice option if speaker grilles were available to cover the side-firing passive drivers. The front and rear A3S drivers look just fine without the grille covers, but the side-firing passive drivers are not as well integrated into the side panels. The overall look of the speaker could benefit from the side-mounted passive radiators being covered by speaker grilles.

Robert Harley Listens to the 1+1: More Than a Desktop Loudspeaker

I’ve been listening to the 1+1s on my desktop system and am continually amazed by their midrange transparency, resolution, and naturalness. Many expensive high-end loudspeakers would kill for this kind of midrange performance. In addition to its transparency and lack of coloration, the 1+1s are imaging champs, completely disappearing into the soundfield despite being positioned on either side of a large computer monitor—and I was driving my pair with a \$104 Class D Chinese integrated amplifier.

Just out of curiosity I put the 1+1s on Sound Anchor stands in my main listening room next to the Magico Q7s and drove them with \$300k worth of reference-level sources and electronics. Although positioned well away from any walls in a large room, the 1+1s’ bass balance was surprisingly full and warm. Of course, you shouldn’t expect deep extension or bottom-end dynamics from this small speaker, but that’s not their *raison d’être*. Where the 1+1s excel is in the mids, which can only be described as magical. Reproducing the entire frequency range with a single driver, and with no crossover parts in the signal path, pays huge dividends in the naturalness of instrumental timbre, the sense of hearing nothing between you and the performer, and the ability of the loudspeakers to get out of the way of the music. Vocals were sensational for any loudspeaker, never mind one that costs less than \$2k.

I expected to hear a reduction in top-octave air and extension given that the 3" driver covers the entire frequency range, but the 1+1 had no shortage of treble detail, particularly when I was sitting on-axis to the driver. The soundstage was wide and deep, with pinpoint imaging. I agree with Steven Stone’s conclusion that the 1+1 is a superb small nearfield monitor, but it’s more than that. As part of a main system in an appropriately sized room I could imagine the 1+1 delivering an eminently satisfying musical presentation, particularly for those listeners who value midrange transparency over the last measures of dynamics and bass extension.

SPECS & PRICING

Impedance: 8 ohms

Efficiency: 87dB/1W/1m

Maximum RMS continuous output per pair: 104dB

Maximum RMS continuous power per speaker: 50 watts

Dimensions: 6" x 8" x 9.75"

Price: \$1795

AUDIENCE

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audience-av.com

ASSOCIATED EQUIPMENT

Source Devices: MacPro model 1.1 Intel Xeon 2.66 GHz computer with 16 GB of memory with OS 10.6.7, running iTunes 10.6.3 and Amarra Symphony 2.6 music software, Pure Music 1.89 music software, and Audirana Plus 1.5.12 music software

DACs: Antelope Zodiac

Platinum DSD, Wyred4Sound mPre, April Music Eximus DP-1, Empirical Audio Off-Ramp 5, Mytek 192/24 DSD DAC

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

Speakers: ProAc Anniversary Tablette, Role Audio Kayak, Aerial Acoustics 5B, Audience Clair Audient “The One,

Velodyne DD+ 10 subwoofer

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

Au24SE speaker cable

The Setup

Most of my listening to the Audience ClairAudient 1+1 speakers was in my nearfield high-end desktop system. Like its smaller sibling, the 1+1 is small enough that without some kind of stand it will end up well below ear level when placed on a desktop. I used the same pair of closed-cell high-density “stands” that I use with many of my small desktop monitor reviews, as well as a pair of Ultimate Support adjustable speaker platforms to raise the 1+1 speakers so the center of the drivers were level with my ear height.

Although the 1+1 speakers will produce a remarkably cohesive and well-defined image almost regardless of how they are set up, proper set-up geometry is important for optimal imaging. I recommend using a tape measure to insure that the speakers are precisely triangulated so they are equidistant from your ears. Having one speaker more than an inch closer than the other can have an audible effect on their time-alignment. Also the toe-in between the two speakers needs to match. I used Genelec’s free “Speaker Angle” iPod App to put each speaker at exactly the same angle.

With a sensitivity of 87dB at one watt, I found that the 1+1s mated well with a variety of amplifiers. During most of the review I used a single April Music S1 power amplifier, which had more than enough power to drive 1+1 speakers to ear-bleed levels. I also used the 1+1 in a separate system driven by the tiny Olasonic Nanocompo Nano UA-1 integrated amplifier, which puts out only 13 watts into 8 ohms. Even with this small amplifier the 1+1 speaker could play cleanly at satisfying volume levels.

The Sound of the Audience 1+1

Given that I called Audience’s “The One” the best dedicated desktop speaker I’d heard, how much better could the Audience 1+1 be? Much better? A little bit better? No better? Let’s see...

First, let me detail how and where the 1+1 bests its smaller sibling. Near the end of the review period I managed to destroy both drivers on my review pair of “The One” speakers when they received a dose of ABBA at full level from my Accuphase P-300 power amplifier. Replacing the blown drivers with new ones was an easy job that took less than 30 minutes. But since that experience I’ve been more careful to check output levels before choosing a source when using “The Ones.” With the 1+1 speaker’s greater power-handling capabilities I feel a bit more comfortable turning them up to 10 or even 11. And while I never heard “The One” speakers show any audible signs of distress when playing loudly at my desktop, I do feel that on big, dynamic musical selections the 1+1 speakers have a bit better control and finesse during triple forte passages.

Where else does the Audience 1+1 best “The One?” Listening to

my live concert DSD5.6 recordings I noticed the 1+1 speakers had slightly better dynamic contrast, principally on peak levels during triple-forte passages. Using the SPL meter in the Audiotools app I noticed that when the low-level outputs were matched between the two speakers the 1+1 produced, on average, a 1.5dB increase in peak volume during the loudest passages.

In imaging precision the 1+1 and “The One” speakers were equals. The 1+1 duplicates “The One’s” uncanny ability to disappear while creating a seamless three-dimensional soundstage. And not only do the 1+1 speakers disappear when you’re sitting in their sweet spot, their sweet spot is large enough that no amount of chair-based gyrations will alter their imaging. The only “tricks” needed for optimum soundstaging are that the two speakers should be equidistant from your ears and raised up off your desktop so that the center of the drivers is at or very near ear height.

The 1+1 do deliver more midbass energy than “The One” speaker, and for some listeners they may have sufficient bass extension so that they could be employed without a subwoofer. But for anyone who requires a true full-range desktop or nearfield system, a subwoofer is recommended. I used a Velodyne DD+ 10 subwoofer crossed over at 65Hz into the 1+1 speakers. Besides the additional low-frequency extension, using a subwoofer also relieved the 1+1 speakers of low-bass duties, which allowed them to play louder than they could when fed a full-range signal.

1+1 = 3

When I finished my review of the Audience ClairAudient “The One” I was convinced it was one of the best nearfield monitors I’d ever heard. My time with the larger Audience 1+1 speakers hasn’t reduced my positive impressions of “The One,” but it has induced me to place the 1+1 above the “The One” at the top of my own personal “best” nearfield loudspeaker list.

Just like “The One,” the Audience 1+1 creates a three-dimensional soundstage that allows an audiophile to easily listen into the subtle low-level nuances of a mix or live performance. Also, like all Audience speakers, the 1+1 provides a seamless, phase-coherent, crossover-less, sonic presentation that makes it very hard to go back to listening to a conventional multi-driver speaker without hearing the sonic discontinuities caused by the crossover design and its components.

If you are planning to assemble a high-performance nearfield listening system I urge you to audition the Audience 1+1 (or if your budget is tighter, “The One”). They are both superb transducers that show that the right technology in the right application creates magic. **tas**