"A benchmark product … WILL EMBARRASS MANY SPEAKERS COSTING MUCH MORE."

Reprinted with permission from

ULTRA audio

www.ultraaudio.com

"… just what you'd want … remarkably well balanced … excellent clarity … natural yet precise … extended yet delicate … greater weight and authority — than its size gave it a right to."

SELECT component — ULTRA AUDIO PICKS THE BEST!

by Jeff Fritz

Paradigm's loudspeakers are not new to me. I've listened to a number of the Canadian company's offerings over the years, and keep on hand as a real-world benchmark a pair of their Reference Studio 100's—a speaker that I know performs better than most of its competitors at anywhere near its price. The Studio 100 is an ideal speaker to compare other speakers to. If the speaker being reviewed is priced higher than the Paradigm—and most of the ones I review cost much more—then it has to pass the Studio 100 test just to make the initial cut. When not employed as comparison speakers in my Music Vault listening room, my 100's anchor my living-room home theater.

Above the Studio series is Paradigm's Signature line, which didn't exist when I first reviewed the Studio 100. The Signatures expand on the design elements of the Studios and are Paradigm's most expensive speakers to date. I was sent a pair of Signature S6's, one model down from the S8, the top of the Signature line. At the price, the S6 is more than twice the price of the Studio 100, but contains one fewer bass driver.

I was curious to see where the S6 would fit in the price vs. performance hierarchy of real-world speakers: those priced higher than budget models, but still within reach of many enthusiasts. Could it still be a bargain, or even a new benchmark? Or would diminishing returns set in? At the price, and knowing their lineage, I had high expectations.

WHAT'S NEW?

The latest Signatures contain a number of advancements over the original series. The most noteworthy is the new tweeter: a 1″ P-Be, "pure" beryllium dome mounted in a shallow aluminum waveguide. Beryllium is stiffer than the aluminum used in the older version, and this characteristic reportedly gives the new Signatures a greater bandwidth: Paradigm states that the S6 will play on-axis from 50 Hz up to a quite ambitious 45 kHz,+/-2 dB. Here's how it works: The stiffer a tweeter dome or cone, the higher the frequency at which it can retain the integrity of its shape. This frequency at which the shape of a dome or cone begins to deform is often referred to as the "breakup" frequency. A beryllium driver purportedly doesn't break up until a much higher frequency than units made of materials such as aluminum or titanium. The theory is that pushing the breakup frequency way past 20 kHz—the best-case

upper limit of human hearing—should make for better sound within the audioband.

The Signature S6's midrange driver is a cobalt-infused pure-aluminum cone 7″ in diameter. The bass drivers are two 7″ mineral-filled polypropylene cones that operate in tandem. This makes the S6 a three-way loudspeaker, though it is modestly sized: 43-3/4″ H x 8-1/4″ W x 13-1/2″ D, and weighing 70 pounds. In fact, the S6 has such a small footprint that I can't imagine anyone thinking it too large for almost any domestic setting. Supporting that notion is an attractive cabinet that tapers from front to back in a gentle curve that makes it look more elegant than boxy. With the grille in place you won't notice the aluminum driver flanges, ports, and tweeter housing (also upgrades over their plastic counterparts in the Studio series), but you'll admire its nicely finished real-wood veneer.

"… expressive in the high frequencies … offering a deeper look into the music … I could hear fine details … produced music from a quieter background—particularly when pushed hard with bass-heavy music …"

Paradigm states that the S6's sensitivity is 88 dB/W/m in an anechoic chamber and 91 dB in an actual room, and that its impedance is "compatible with 8 ohms." I assume the latter means that the S6's impedance is close to 8 ohms across the vast majority of its operating range, and perhaps falls below that number at certain frequencies—normal behavior for most speakers. The bottom line is that the S6 should be a relatively easy load for the partnering amplifier(s), and should play adequately loud without huge amounts of power. The speaker is biwirable, with two sets of five-way binding posts. The finish options are cherry, natural bird's-eye maple, and piano black.

SETTING THEM UP

Unpacking the Signature S6's gave me the first hint that the new speaker is a cut above the Studio 100: the S6 felt more solid, with parts that fit tighter than the Studio's. Perhaps it was the aluminum fittings and real-wood veneer vs. the plastic and vinyl of the less-expensive models, but the Signature gave the impression of a better-built speaker in all respects.

"… crisp and clean — not at all rolled off … no overemphasis … highs were nicely balanced within the overall picture … all the attributes a music lover could want."

I found the S6 to be not all that sensitive to placement, though experimenting with toe-in and relation to the front wall did allow me to fine-tune the overall balance. I ended up with the S6's well out into the room, near the usual spots that speakers sound good in the Music Vault, and toed in so that the tweeter axes crossed just behind my head when I sat at the listening position.

My reference system for this review comprised: a Vitus Audio SS-101 stereo amplifier paired with a Simaudio Evolution P-8 preamplifier; an Esoteric UX3-SE DVD-AV/SACD/CD player and, primarily, an Apple MacBook linked via a USB cable to a Stello DA220 Mk.II DAC. Cables and power conditioning were all from Shunyata Research: Antares interconnects, Orion speaker cables, and Hydra V-Ray power conditioner.

"… excellent clarity … appropriately projected vocals … neutral and unassuming … natural tone … performers were scaled to just the right size within the soundstage … I was able to hear far into recordings …"

PERFORMANCE

I do believe the days of etched or screechy highs are over for most loudspeaker brands—legitimately engineered ones, anyway. Occasionally you'll still hear a model that has some slight spotlighting in the highs, but this is typically a conscious decision on the part of the manufacturer. At least that's my contention. This was one of my first questions as I began listening to the S6's: Would the beryllium tweeter sonically stand out?

The answer was a resounding no: The S6 didn't bowl me over with etched or screechy highs. Paradigm has rightfully resisted the temptation to highlight its tweeter within the S6's overall frequency response, making no attempt to woo potential owners with exaggerated detail. The S6 sounded crisp and clean—not at all rolled off, but with no overemphasis of the highs that might make for long-term listener fatigue. I listened to the guitars in the title track of Acoustic Alchemy's *Positive Thinking* [CD, GRP 9907]: The strumming sounded natural yet precise, extended yet delicate—just what you'd want. The highs were nicely balanced within the overall picture, and had all the attributes a music lover could want.

"… vocals seamlessly meshed … well-organized and uncluttered … if you were to put the S6 in the does-nothing-wrong class, I think you'd have it about right."

The S6 presented the midrange with excellent clarity, and appropriately projected vocals into the room. The Signature was certainly not upfront, and perhaps a touch laid-back in this range; overall I'd characterize their midrange as relatively neutral and unassuming. Male and female vocals had natural tone, and performers were scaled to just the right size within the soundstage. I was able to hear far into recordings, such as Nickel Creek's eponymous debut album [CD, Sugar Hill 3970]. Their easygoing vocals seamlessly meshed with the bluegrass guitar work to keep the music well-organized and uncluttered. I heard no nasality or chestiness in vocals, whether male or female. In terms of overall midrange performance, if you were to put the S6 in the does-nothing-wrong class, I think you'd have it about right.

"I played all types of music through them—they did well with all of it … sounded big with orchestral works … reproduced such subtle things as the ethereal detail …"

The S6 seemed to play with greater weight and authority down to its lower bass limits than its size gave it a right to. It could easily fill my good-sized room with low-end energy, and was impactful in the midbass when asked to be. Nor, when the S6 finally did run out of steam in the really low bass, did it do so

gradually—in my room, the bass just fell off a cliff below about 40 Hz. The bass line in "Freedom Now," from Tracy Chapman's *Crossroads* [CD, Elektra 60888-2], was consistent and strong. However, the drums in "Norbu," from Bruno Coulais's *Himalaya* [CD, Virgin 8 48478 2], trailed off too soon, without fully energizing my room. The S6 wasn't light in the bass; it just didn't plumb the depths that a much larger speaker would. (I wonder if Paradigm's own S8, which is rated to play down to 42 Hz, would play back "Norbu" with the bass depth required for a truly faithful rendition.) Once again, as with the tweeter, Paradigm seems to have made all the right design choices: they gave the S6 modest extension down low without trying to get too much of a good thing out of it, such as pushing the bass response lower but screwing up the mid- and upper bass. The bass that the S6 did reproduce it reproduced with good agility and weight. What it couldn't do, it didn't even attempt.

"… could easily fill my good-sized room with low-end energy … impactful … consistent and strong … good agility and weight … could play loud … for a relatively compact speaker to even approach these levels is somewhat of a surprise."

The S6 could play loud, but I did hit its limits. I calibrated my system to 85 dB with pink noise (pink noise at 85 dB is loud), played back some recordings with wide dynamic range, and hit peaks of 103 – 104 dB in my room. But the S6 cried uncle at any level higher than 100 dB, sounding distorted and hard. This is louder than most people are likely to play their systems, however. In a home-theater setting, the main speakers would likely be crossed over to a subwoofer, which would increase the mains' effective dynamic range. For a relatively compact speaker to even approach these types of listening levels is somewhat of a surprise.

COMPARISONS

Against the larger Studio 100, the Signature S6 showed just what performance enhancements Paradigm has made in their premier line. The S6 was more expressive in the high frequencies, offering a deeper look into the music. I could hear fine details that seemed obscured by the Studio 100. The S6 also produced music from a quieter background, particularly when pushed hard with bass-heavy music; the Studio 100 could become a bit muddled in the midbass. My guess is that this had to do with the Signature's more solid cabinet and ample use of aluminum instead of plastic. Regardless, the S6 held on to its composure longer than the Studio 100.

I was surprised that I didn't feel the Studio 100's extra bass driver gave it a competitive advantage. Maybe the Studio 100 will play louder that the S6, and maybe it will play just a touch lower—though the extension of either parameter was not so obvious that anyone would notice it with most music—but the S6 was tighter and hit harder. The S6 sounded quicker and more responsive from the bass up through the midbass. Overall, the S6 was clearly the better speaker.

"I have not heard a like-priced speaker that offers as much performance in a package sized appropriately for a real home …"

CONCLUSION

The Paradigm Signature S6 is a benchmark product. I have not heard a like-priced speaker that offers as much performance in a package sized appropriately for a real home, and good-looking enough to not have to hide behind a plant. But the S6 is more than that: If you're considering buying a speaker for under, say, $8000/pair, you should listen to it. Then, if you found a better-sounding speaker than the S6, you'd know that you'd found something really special. You also might find that the S6 is all you really need.

"If I were the maker of an expensive boutique speaker that costs much more than it should, I'd fear Paradigm's Signature S6."

Overall, the Signature S6 is a remarkably well-balanced speaker—particularly for the price. That it will embarrass many speakers costing much more is something I'm pretty sure of—I've reviewed a fair number of them. Its sins are of omission rather than commission, indicating that its designers know a thing or two about the tradeoffs involved in loudspeaker design. Nor does the S6 lean toward one type of music or another; I played all types of music through them, and they did well with all of it. They sounded big with orchestral works or Hans Zimmer film soundtracks, and they reproduced such subtle things as the ethereal detail in a Laurie Anderson song. I can't imagine anyone being disappointed in them. If I were the maker of an expensive boutique speaker that costs more than it should, I'd fear Paradigm's Signature S6.