

Sound Stage! Hi-Fi

Paradigm Atom Monitor v.7 Loudspeakers

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Note: Measurements taken in the anechoic chamber at Canada's National Research Council can be found through [this link](#).



The Atom has long been one of the most important models in Paradigm's line: it's their least-expensive main speaker -- almost anyone can afford it -- and it's the gateway to Paradigm's "house sound."

I was introduced to the Atom in the 1990s -- the v.2 edition -- and the last one I reviewed was the v.5, in 2007 (for *GoodSound!*), the year "Monitor" was added to the model's name. Prior to v.5, the speaker was called the Performance Atom. Paradigm discontinued the Performance series but wanted the Atom to live on, and so incorporated it into the Monitor series. There was an Atom Monitor v.6, but we didn't review it; it seemed to be only a minor upgrade of the v.5, and cosmetically they looked about the same.

Although the Atom v.7's cabinet size, number of drivers, and low price (\$398 USD per pair) are in line with the Atoms of yore, it's a different animal: On its front baffle are two entirely new drivers that look very tech-y, and include technology trickled down from Paradigm's far more expensive Studio series, as well as some things unique to this newest generation of the Monitor models.

Description

First, the Atom Monitor v.7's cabinet: It's made of 0.75"-thick MDF all around, and feels sturdy. It measures about 11"H x 6.5"W x 9"D, weighs some ten pounds, and has a single set of binding posts on the rear. Commensurate with its low price, the Atom Monitor is still veneered in vinyl, not real wood or some other fancy finish. My review pair came in Black Ash, which is finished well, looks decent enough, and will blend easily into almost any décor. But if I were buying these, I'd opt for the other finish, Heritage Cherry, which looks a lot nicer and sticks out in a room more, something I like a speaker to do.

More interesting is the way the Atom v.7's baffle is made. A slab of MDF is recessed about half an inch, so that the top, bottom, and side panels form a lip. The drivers are screwed into the baffle, over which is snugly fitted (no rattles) a half-inch-thick plastic "fascia" with an attractive rubberized finish. This not only conceals the drivers' baskets and screws, it provides a very smooth surface for the drivers' wave launches, which should greatly reduce diffraction effects and result in smoother frequency response. Embedded in the plastic baffle are magnets, to which can be attached the supplied



grille. If you pull hard enough, you can remove this plastic cover, but I don't recommend doing so unless you've got a good reason to get at the drivers (*i.e.*, to repair or replace them, but not merely to see what's back there).

The Atom v.7's drivers seem a clear step up in terms of both performance and appearance -- the midrange-woofers in the v.5 and v.6 models were tinted in a way that brought one word to mind: *condom*. The v.7's silver-colored, ferrofluid-cooled, 1" dome tweeter is surrounded by a shallow waveguide and covered by a protective mesh. The 5.5" silvery-white midrange-woofer has a black rubber surround, a glass-reinforced polymer chassis, a high-temperature voice-coil for increased power handling, and a rear-firing port. Both driver diaphragms are made of Paradigm's proprietary satin-anodized pure aluminum (S-PAL), and are crossed over at 2kHz using second-order electroacoustic slopes. Such a lowish crossover frequency ensures a good acoustic blend of the drivers' outputs, both on and off the listening axis.



Paradigm makes hardcore, audiophile-grade speakers, and provides more relevant specifications than do many manufacturers that offer speakers in this price range, particularly in terms of frequency response. The Atom v.7's on-axis FRs are a claimed 86Hz-22kHz, +/-2dB -- or, from 30° off axis, 86Hz-18kHz, +/-2dB. The v.7's stated low-frequency extension is 50Hz (presumably the -10dB point), which is very respectable for so small a speaker. These specs indicate that the Atom v.7 has been designed to generate quite deep bass for its size, and to sound very linear (*i.e.*, neutral) over a wide listening window. Other useful specs provided: impedance, said to be "Compatible with 8 ohms," meaning not *exactly* 8 ohms, but still easy enough to drive; sensitivities of 90dB in-room and 87dB anechoic (*i.e.*, about average); and amplifier power, which Paradigm recommends should be between 15 and 80W.

Setups

No one will use the Atom Monitor v.7 as I did for some of my listening sessions: with a high-grade, high-powered amp such as Bryston's 4B SST² in a super-high-end system (see "Associated Equipment," below). I wanted to find out how well this speaker could perform in such a context, and figured that readers would want to know too. More sensibly, I also partnered the Atom v.7 with an

Audioengine N22 integrated amplifier (22Wpc into 8 ohms, \$199) fed by an iPod Touch. Between these two extremes lies any imaginable combination of source component and amplification. In both systems, the Atom Monitors v.7s were perched atop 24"-high stands.

Sound

My reference loudspeaker is Revel's statement-grade Ultima Salon2 (\$22,000/pair). While listening to the Atom Monitor v.7, I was also preparing my review of Vienna Acoustics' impeccably built and uniquely voiced Mozart Grand SE speaker (\$3500/pair). How was a little \$398 pair of speakers supposed to stand up to either of *those*, let alone sound impressive in any way?

Surprisingly, the little Atom v.7s did impress me. One of the most remarkable things about them was the large, spacious soundfield they produced, something you don't necessarily expect from a small speaker at such a low price. The little Atoms had no trouble filling with sound even my large listening room -- nor, much to my surprise, did I hear any port chuffing or other objectionable sounds when I turned the volume up quite loud. My smaller room, where my Audioengine N22 amp resides, is more the size of room the Atom is intended to be used in; there, the pair of them sounded extremely full and very alive.

The bass weight was excellent for so small a speaker -- I got good reach to about 50Hz, which is great for a 5.5" driver in a small box -- and the tightness and control were outstanding. When I played the title track of Bruce Springsteen's *Tunnel of Love* (CD, Columbia CK 42000), the drums had surprising depth and punch. The heavy drumbeats throughout the opening of "Rolling in the Deep," from Adele's *21* (CD, XL Recordings 44699), were re-created surprisingly well. The Atom v.7's combination of depth, tightness, and control in the bass is a great improvement over the v.5's performance in that region; while also producing full-sounding bass, the v.5 could sound a bit loose and woolly down low, particularly when pushed hard.

If, to get a more full-range sound, you wanted deeper bass (*i.e.*, closer to 20Hz) than the Atom v.7 can provide, you'd have to add a subwoofer, particularly if you wanted to use them for movies -- small speakers may sound impressive for their size, but their bass can go only so deep. (Of course, you could instead get one of Paradigm's larger Monitor models.) But I think that listeners who aren't bass freaks will find that the Atom v.7 sounds robust enough in a room of small to medium size. I did.

Like its predecessors, the Atom v.7 had an even overall tonal balance that made voices and instruments sound completely natural. Reviewer Philip Beaudette dropped by and listened to some of the tracks from *21*. "They get Adele's voice *exactly* right," he declared, and I agreed. But it wasn't only Adele's voice -- the v.7 got right *every* voice and instrument I listened to through them. Still, this didn't exactly shock me. Paradigm has always made neutral-sounding speakers -- their designs have long adhered to the research done at Canada's National Research Council in the 1980s, which called for speakers to exhibit relatively flat on- and off-axis frequency responses. The result is very natural sound, not only for listeners sitting directly in front of the speakers, but also for those sitting well outside the "sweet spot," and in almost every point of the room.

I believe the Atom v.7's excellent dispersion characteristics account for the speakers' spacious sound. But if the v.7 faltered in one area, it was in the *precision* of the soundstage -- the lateral spread of the soundstage was awesome, and had a decent illusion of depth, but the stage itself wasn't as focused as through some other speakers. I suspect that is one of the tradeoffs of creating such an impressive sense of space. For 400 bucks, you can't have everything.

The Atom v.7 seemed to be voiced quite differently from its predecessors in the highest frequencies. I often found the early Atom models to be ever-so-slightly reticent up top, and often thought that was a deliberate design choice to ensure that their inexpensive tweeters would never sound unruly or bright,

and/or to cover up the flaws of the low-priced electronics the speakers would likely be used with -- cheap amps can sound hard, edgy, or bright, and a soft top end can help tame that. The Atom v.7 had nothing resembling a high-frequency rolloff. If anything, there was more energy up top than I'm used to hearing from Paradigm speakers. Still, while the Atom v.7 didn't sound bright, it sure sounded lively up high -- the top end of a guitar's sound really shimmered, and cymbals, while clean, were quite prominent.

In one area, the Atom v.7 floored me: its re-creation of the sound of the acoustic piano. To assess how well a speaker does this, I use Glenn Gould's *A State of Wonder: The Complete Goldberg Variations of J.S. Bach 1955 & 1981* (CD, Sony Classical 87703); and Ola Gjeilo's *Stone Rose* (CD/SACD, 2L 2L-048-SACD). The Atom v.7's top end was prominent, but never excessive or bright; instead, its superb clarity up top made the instrument sound really alive. Mostly, though, it was the low end of Gjeilo's piano that took me aback -- it sounded fuller and richer, with more detail, than I ever thought so small a speaker could manage. I don't want to overstate the Atom v.7's bass output -- it's definitely *not* a full-range design -- but I don't want to understate it either: this pintsize speaker sounded *robust*.

With the *Goldberg* CD, it wasn't the fullness or richness of the bass but, instead, the way the Atom v.7 revealed the incisiveness and attack of Gould's rapid-fire playing. The v.7's sound was so detailed and well articulated that I'm sure most people unaware of its price would think they were hearing a set of larger speakers costing well over a grand. The Atom v.7 offered so much music for so little money -- something I can't always say about the really expensive stuff. I was impressed.

Comparisons

It was interesting to replace the Audioengine P4 speakers (\$249/pair) in my smaller system with the Atom Monitor v.7s. The jury is out on which speaker looks better -- the P4's rounded edges and bamboo finish give it a unique look -- but there's no question that the Atom v.7 is more substantially built. The v.7's cabinet is at least 20% bigger, its woofer is at least 1" larger in diameter (which, with the bigger cabinet, means deeper bass), and both drivers look more advanced and high-tech. That's not to dis the P4 -- it costs more than a third less than the Paradigm, and it's intended to be used in a bedroom, living room, or office. In an office, it's likely to be used on a desk, where its smaller size and unique appearance will be more welcome than the bigger, boxier Atom v.7.

The two models' sound qualities are also markedly different. The P4 is notable for sound that is very neutral and refined for the price -- for \$249/pair, it's a very good deal. But for \$149 more, the Atom v.7 offers a bigger, richer, fuller sound, with far more impact in the bass, even when driven by the little 22Wpc N22 amp. And in terms of spaciousness there was no contest -- the P4s' sound was always easily identified as emanating from and slightly around the speakers' cabinets, whereas the Paradigms' sound seemed to come from everywhere *but* the cabinets. The P4's highs sounded clean, but the Atom v.7's highs were far more clear, extended, and lively. My wife listens to a lot of guitar-dominated Latin music through our second system, and there was no question that plucked guitar notes sounded much cleaner and more refined through the Atoms. In fact, after the Paradigms had been in the system a while, she didn't want me to remove them. The Atom v.7 also rendered voices and subtle details with much more clarity.

If you can't spend more than \$250, or just want some decent-sounding, nice-looking speakers for your desktop, the P4 is a good choice. But moving up to the Atom Monitor v.7 offers a significant improvement in sound quality and gets you into the territory of *real* speakers -- speakers around which you can build a true high-end system.

The [Polk RTi A1](#) loudspeaker, which Aron Garrecht reviewed and praised last year, is one of those real speakers, and proved a more worthy opponent. I have a pair of them here and can back up Aron's enthusiasm with my own -- the RTi A1 is not only a great sonic value for the price (\$340 when Aron

reviewed them), it gets high points for its fine appearance, particularly its curved side panels. I remember getting them here and being more impressed with their appearance than with the Atom Monitor v.5's. The two speakers' drivers are about the same size, but the Paradigm's cabinet is a little smaller.

There were some sonic similarities. Mostly, the speakers shared a generally neutral overall tonal balance with a slight rise in the top end, and more-than-respectable bass extension for their sizes. It didn't take long, though, to hear that time had marched on: despite being slightly smaller than the Polk RTi A1, the new Atom is the new boss.

The RTi A1's tipped-up top end sounded so bright and edgy with "Take It All," from Adele's *21*, that I had to keep turning the volume down. The Atom v.7's highs were just as prominent but were always clean, never bright or edgy -- I could play this track louder without listening fatigue. Through the Polk, Adele's voice also sounded a bit wispy, with a slight papery quality that overemphasized some sibilants; the Atom v.7 never did this. The Paradigm also sounded slightly fuller and richer in the midrange, and delivered slightly deeper bass that also seemed to be more accurate -- piano and drums sounded far more real.

Aron was right -- the RTi A1s can image precisely, hanging well-defined voices and instruments clearly and on the soundstage. That impressed me. But the Atom v.7s stepped ahead of the RTi A1s in creating a better sense of overall space -- a far wider, slightly deeper soundstage -- and revealing details around the musicians that were simply lost through the Polks.

The Polk RTi A1 is a better speaker than the Audioengine P4, but the Paradigm Atom Monitor v.7 is better than either. If your No.1 priority is sound and your budget can stretch to include \$398, then of these three models, the Atom v.7 is the one to get. There's not always a direct correlation with price and performance; in this case, there is.

Conclusions

Many have compared Paradigm to Honda in terms of reputation, build quality, and value; like Honda's Civic, some of Paradigm's inexpensive speaker models -- such as the Atom Monitor v.7 -- are low-priced portals to more expensive offerings. This is quite a compliment in both directions; both companies are well respected. Recently, though, *Consumer Reports* considerably downgraded its recommendation of the Civic because the 2012 model didn't perform as well as those of previous years. That was a shock to some, who wondered how Honda could have missed the mark by so much.

With the Atom Monitor, Paradigm hasn't suffered that fate. I've been familiar with the model's various iterations over many years, and can unequivocally say that, overall, the v.7 is the best one yet. Its vinyl-clad cabinet is reminiscent of yesteryear's designs -- nothing special there -- yet the speaker looks better than before. This is partly due to the nice-looking grille design, but mostly to the fact that when the grille comes off, it reveals an attractive baffle with a clean, high-tech appearance and sharp-looking drivers. Most important, the speaker sounds remarkably robust in the bass for its size, exceedingly natural from the upper bass through the mids, and lively but extremely clean in the highs. All told, Paradigm's Atom Monitor continues to be one of the best deals in high-end audio, and the highest-value entry point in the company's vast speaker line. Very highly recommended for those looking for a lot of music for very little money.

. . . *Doug Schneider*