

“... musical, detailed and

SATISFYING

in every respect ... ”

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“VALUE: Astronomically high due to their refined sound and miniscule price; no guilt in buying hi-fi equipment like the Atoms that costs so little.”



by Neil Walker

Atom

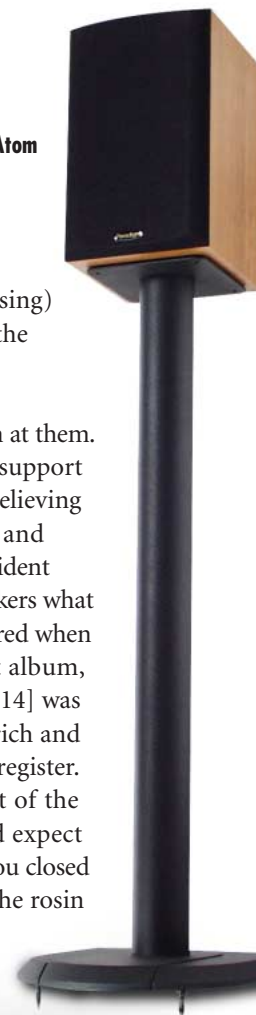
An almost unbelievable level of sound quality from speakers that cost less than \$200 per pair.

My friend, AA (Affluent Audiophile; owns \$10,000 speakers, \$8000 CD player—you get the picture), sneered. “Of course those cheap speakers sound good at first—you have no expectations of them.” I tried to say something about sound staging. He replied, “Sure, they design them with wide dispersion.” He was off again. “You might be surprised by them, but you would never be able to live with them. The drivers probably cost less than ten dollars.”

I slunk away, properly chastened. I couldn’t admit that I had been living with them for over a month and loved to sit back late at night, play a few of my favorite discs, both CD and vinyl, and enjoy the acoustic textures, the

musicality, the (yes, surprising) easy roll-off in the bass as the speaker reached its limits.

So today, I took another run at them. I thought, Paradigm’s tech support just sweet-talked me into believing that research, engineering and unrelenting tweaking by resident audio nuts made these speakers what they are. But what I discovered when I played Yo-Yo Ma’s recent album, *Solo* [Sony Classical SK 64114] was no mistake. The cello was rich and vibrant down to its lowest register. The high notes danced out of the speakers, just as you would expect from Ma. And yes, when you closed your eyes, you could hear the rosin tugging at the strings.



"The Paradigm Atom speakers deserve the critical acclaim they have already garnered. They are high-end speakers for people on a low-end budget."

However, I thought I must be wrong. Was I imagining things? Earlier in the day I had listened to parts of Bill Frisell's *Good Dog, Happy Man* [Nonesuch 79536-2] played with the same amplifier as mine (Audiomat Arpège) through \$9000 speakers. It was incredible. Now, I am not going to argue that these \$189 Atoms are the equivalent of those \$9000 speakers, but are they 50 times worse?

DESCRIPTION

When you first see these Atom speakers, you are struck by, well, nothing. They are little—11"H x 7"W x 9"D—walnut-vinyl boxes with black cloth covering the drivers. You try to remove the grille and discover you cannot because it is permanently attached. Want to admire Paradigm's beautiful technology? Get out your Phillips screw driver and remove the molded plastic back.

The front of the box is a 3/4" MDF baffle. It is sloped inward to meet the face of the tweeter to control edge diffraction and, according to Paradigm, to help get a flat response from the tweeter. The rest of the cabinet is made of a single piece of MDE, with only one cut to be joined. The v-cuts that enable the fold remove no more than 1% of the material's depth. When you have the back off, you will see that every corner is well glued. The result is a minimum of possible vibration in cabinet joints while maintaining economy of manufacture. Paradigm does everything in-house; there is no contracting out except for the foundry operation to create the die-cast speaker chassis and the plastic molding. Paradigm even manufactures the molds and cutting heads for the die-casting of the speaker chassis.

As you continue your first encounter with these speakers, and conscious that conventional audio wisdom says heavy is good ("Feel the weight of that 3-watt amp—takes three of us to lift 'er into the rack!"), you pick up an Atom and realize why it's named as it is. It weighs in at a good six and a half pounds. But their size is deceiving. They replaced two floorstanding units in my listening room, each about four feet high and sixty pounds each. For the first several days, every time I entered the room, I looked for the sound source and saw the little boxes churning out their big sound.

"... the speakers excel in presenting musical detail. ... full and immediate in their presence, the response of the drums and cymbals quick and detailed. ... vivid clarity ..."

Paradigm claims +/-2 dB frequency response from 70 Hz to 20 kHz on-axis and a high of 16 kHz off-axis. Paradigm also says that the speaker's low-frequency extension is 55 Hz at -3 dB "in a typical listening room." By the very unscientific method of listening while consulting my chart of sound frequencies made by various instruments, Paradigm's statistics seem reasonable.

SOUND

At this point you are thinking that this speaker has somehow been misdelivered—no audiophile speaker has a molded plastic back, non-detachable grille and *faux* walnut plasticum mysterium veneer. Anyway, you turn it around and put the banana plugs into the red and black plastic knobs (with gold-plated terminals underneath). You turn on the rest of the system and, being the scientifically superstitious person you are, you wait a good five minutes before actually letting yourself listen to the speakers.

Right away, you realize that they have great depth—a wide, deep soundstage

and excellent off-axis performance. The bass seems absent until you turn up the volume a little. They really do not come into their own until you have let them play for about 100 hours or so. During the time I used them, the bass response got better and better.

What this means is that you are not going to be thrown through the back wall by the bass drum in Fritz Reiner's recording of Strauss' *Thunder and Lightning Polka* on the Classic Records reissue of *Strauss Waltzes* (Reiner with Chicago Symphony [RCA Victor: LSC-2500]). Nor will Ministry's *N.W.O.* [Sire/Warner Bros. CD 26727]) deliver the visceral excitement you might expect from this industrial-rock band.

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But the speakers excel in presenting musical detail. On the Reiner recording, the strings in *Vienna Blood* and *Roses from the South* are full and immediate in their presence, the response of the drums and cymbals quick and detailed. While a forceful, detailed bass is not there in the 20 Hz to 60 Hz range, it certainly is above that. About three minutes into *Roses from the South*, the arpeggio accompaniment of the clarinet comes through with vivid clarity, revealing the woody timbre of the instrument. Just before that, you are enjoying the little voice of the triangle punctuating the dance along with the brasses and wondering why you had not been born into Viennese aristocracy about 150 years ago.

Part of finding happiness with speakers is getting them to yield up the minute detail with the immediacy you believe

you can hear. If one of the tests your speakers must pass quickly is playing "vacuous 'ting-and-bang' audiophile recordings" (*Gramophone* reviewer Andrew Everard's phrase), then you will be happy with the Atoms. A good "ting and bang" CD which also happens to be excellent music is another Bill Frisell effort, *Gone, Just Like a Train* [Nonesuch 79479-2]. The ting-and-bang test is important only insofar as it gives some indication of a speaker's speedy response to input. Each musical instrument derives its character from the attack of each note and the harmonics the instrument produces. A note played on a piano on some speakers is hard to distinguish from that of a lute or an organ once the note has begun. But my conclusion was fast to formulate: These speakers are responsive and detailed. To prove the point to myself, I played them with a very wide variety of music, and the Atoms offered no surprises. Their detail and responsiveness work for all kinds of music.

"... great depth — a wide, deep soundstage and excellent off-axis performance."

When Alfredo and Violetta reunite at the end of Verdi's *La Traviata*, (Frank Lopardo and Angela Georghiu, Georg Solti conducting the Orchestra and Chorus of the Royal Opera House, Covent Garden [London 448 119-2]), they sing a memorable duet about fleeing to Paris (*Parigi, o cara, noi lasceremo*), the emotion of which the Atoms bring right into the room. Then, when Violetta's maid, Annina, leaves the lovers to fetch the doctor, a sudden mournful blast of the horns announces a change of tone to forebode Violetta's impending death. On the Atoms, the horns command your attention as they should, and then the Atoms carry you through to the final tragic conclusion with all the feeling and intensity this classic always summons in the listener.

The Atoms' responsiveness also works for other voices. Sumi Jo's crystalline soprano soars through Constanze's

symphonic *Martern aller Arten* from W. A. Mozart's *Die Entführung aus den Serail* (*Sumi Jo sings Mozart* [Erato 0630-14637-2]), and the Atoms carry the sheer drama and musicality of her voice. The deep rich silkiness of French rap artist MC Solaar's voice in *Caroline* from *Qui sème le vent récolte le tempo* [Polydor 511 133-2] pleads with the listener to hear his longing and love. In *Quartier Nord*, the Atoms don't drop a beat of Solaar's agile rapping of the machine-gun-paced lyrics.

COMPARISONS

OK so far. But someone buying the Atoms is probably not going to have JPS Superconductor+ cables, a Theta CD transport and Audiolab DAC. The Atom buyer is not likely to have a \$2000 Audiomat Arpège integrated amplifier. So I hooked the Atoms up to System B: a NAD T770 receiver and, for the CD player, a Proscan PS8675P DVD player. This is an adequate DVD/CD player for someone who is not willing to commit big dollars to home theater. As CD players go, it is adequate, but not top of the line, playing CDs as no more than a side line. I used 18-gauge speaker wire—no-name, clear plastic multistrand copper wire, with a red stripe running along one side. Its audiophile claim to fame is that I bought it from a speaker manufacturer, not a hardware store.

What happened? The system sounded very good. The NAD is a fine receiver, and the Proscan does its job credibly. The Atoms? Still revealing, still responsive, still detailed—the Atoms will give you as good as you give them. System B would have kept me happy for many years before I could afford Audiomat, Theta, and the like. System B and the Atoms made a happy combination. Charlie Hunter's guitar and Leon Parker's drumkit on *Duo* [Blue Note 7243 4 99187 2 6] kept their snap and bass detail when heard through the Atoms. The bass still pushed an incredible amount of air out of the bass port (when you cannot amuse yourself watching the woofer leaping out of

the cabinet, you have to settle for the bass breeze from the speaker's port). The Atoms showed off the NAD's innate musicality that SoundStager Doug Blackburn noted in an earlier review.

"These speakers are responsive and detailed. ... and work for all kinds of music."

So then let's compare these speakers to a pair of slightly larger, twice-the-price speakers I bought five years ago. Like the Atoms, these are two-way nearfield-monitor-style speakers. But what a difference when I hooked them up. Most obvious (to me and some casual listeners who were visiting—reviewing can have its social moments too) was that my more expensive speakers lacked detail. The Atoms destroyed what I had once enjoyed. Now my speakers seemed muddy and indistinct. At first, I thought the bass seemed fuller, but then I realized that I had this impression only because the treble was muddy and veiled.

I tried these speakers with the same variety of music I used for the formal part of this review, for the sake of consistency. For example, part of the joy of the Frisell record is the rich texture of the guitar, its immediacy of attack, the drums and the bass solos too. Any track will demonstrate this, although *Girl Asks Boy* (Part 2) is a great place to start. Even though the Atoms will not produce shattering bass, in the midbass region, they are deep and involving. But the older speakers had to be driven hard just to make me feel as if I were listening to a great piece of music—the old "make it louder and it will get better" syndrome at work.

CONCLUSION

The Paradigm Atom speakers deserve the critical acclaim they have already garnered. They are high-end speakers for people on a low-end budget. They are musical, detailed and satisfying in every respect, save a deep bass. In the midbass, they will surprise you with their ability to shake the room. Would I buy these

speakers? I wish I had had the opportunity ten years ago. Happily enough, speakers in the real-world price range have evolved. Paradigm should be careful—it would be downright embarrassing if everyone started buying Atoms instead of the company's upscale models. And yes, when my sons and daughter start to upgrade from the boom boxes they love (can't win all the time), I will buy them Atoms, or better yet, give them a sales pitch they can't refuse.

MEASUREMENTS

All loudspeaker measurements are performed independently at the National Research Council of Canada. All measurement data, including graphical information displayed below, is the property of *Soundstage!*

CHART 1 –
Frequency Response and Sensitivity

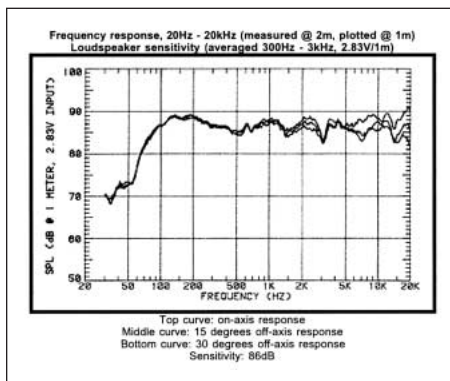


CHART 2 –
Listening Window

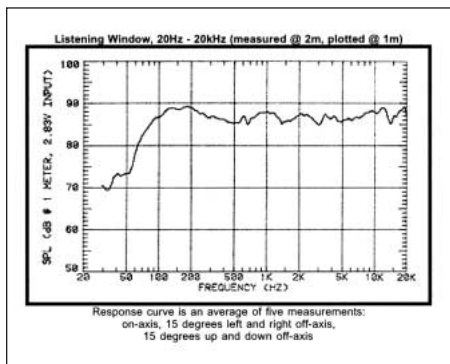


CHART 3 –
Total Harmonic Distortion + Noise

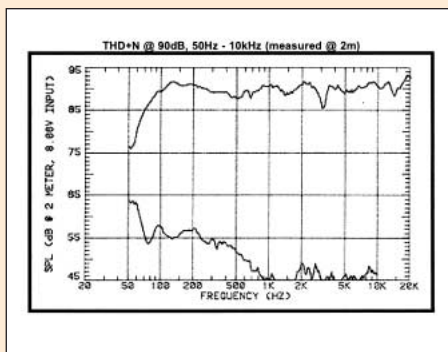


CHART 4 –
Impedance Magnitude
Variation With Frequency

