

## PSB Platinum M2 Monitors by Doug Schneider



The first speakers I owned were PSB Avanté IIs -- that was in 1981. I kept those speakers for seven years, a long time for any audiophile purchase. The Avanté II was a landmark for me, a budding audiophile, and also for the Canadian speaker industry. It was the first speaker designed entirely using the National Research Council's state-of-the-art test facilities. Paul Barton, PSB's lead designer, had begun working with Dr. Floyd Toole at the NRC in the mid-'70s -- long before any other company went to the NRC and long before Toole himself published his groundbreaking work correlating speaker measurements with subjective listening impressions that became the cornerstone of the Canadian loudspeaker industry.

Plenty has changed since. PSB has grown from a smallish, "underground" company into one well known around the world. However, Barton still designs his speakers using the NRC's facilities. Barton's latest creation is the PSB Platinum series, an upscale line intended to celebrate the company's 30th anniversary. Far from the inexpensive speakers of yesteryear that formed PSB's foundation for high performance and high value, the Platinum line has been designed with home-pleasing aesthetics and uncompromised sonics -- and a price tag that more closely reflects those goals. But while Platinum speakers are fairly expensive, they aren't outlandish in terms of cost, particularly when you consider what some companies are charging for their goods these days. As you'll see, PSB hasn't forgotten about value.

### Description

The M2 is the entry-level speaker in the Platinum lineup. It retails for \$1999 USD per pair, and optional stands that are designed specifically for it are priced at \$449 per pair. Above the M2 are the floorstanding T6 and T8 speakers, retailing at \$4999 and \$6999 per pair, respectively. (Wes Phillips just reviewed the T6.) There are also two center-channel models -- the C2 and C4, retailing for \$1499 and \$1999 -- and the S2 Tri-mode surrounds and Sub-Sonic 10 powered subwoofer, which are priced at \$2399 per pair and \$2499 each, respectively.

The M2 has quite stout dimensions for a two-way speaker: 9 3/8"W x 15 7/16"H x 13"D. Each speaker weighs about 30 pounds. All Platinum speakers sport real-wood veneer on the sides and rear -- black ash or cherry -- along with aluminum top and bottom caps and aluminum front-edge rails. The aluminum caps and rails make the speaker more aesthetically pleasing, but they are also there to help control cabinet resonances. Pry off the grille -- admittedly, it's a little tricky to get your fingers underneath to pull it -- and you'll see that the entire front baffle has an aluminum plate. The M2 is as sturdy as it is stocky.



**“Clarity and definition” -- “strikingly neutral in its presentation...”**

The top and bottom aluminum caps are rounded, which helps give the speaker a more sculpted appearance, but that also means it will wobble like a Weeble if you place it on a flat surface. So PSB also supplies screw-in spikes and rubber feet for the speaker's bottom should you wish to place the M2 on a flat surface or traditional stands.

More than likely, though, buyers will opt for the dedicated M2 stands that screw directly into the bottom of the speakers, extending the speakers' visual style all the way to the floor. When using these stands you can still use the spikes and rubber feet, but instead they screw into the top plate of the stand as opposed to the bottom cap on the speaker. (Spikes are generally better for piercing through

carpet to give the speaker a firm foundation, while rubber feet are generally preferred by people who have hardwood floors and don't want to chance marking them up with spikes.)

From top to bottom, particularly with the matching stands, it's obvious that the folks at PSB took some time to give the M2, and all the Platinum models for that matter, a distinctive, unique, and elegant appearance. I think the M2 is one of the more attractive mini-monitors on the market; if you ask my wife, it's the best-looking one that's come into our house in the last year or so (and there have been many). She particularly likes the color of the real-wood veneer -- the review pair was supplied in cherry -- and the way the wood contrasts with the aluminum caps and rails. She also likes the silver-colored grilles, which I think are distinctive too. All in all, the M2 doesn't look like the typical Canadian-made bookshelf speaker of yore. It has a Scandinavian look to it with a dash of space-age appeal.

Although the M2's appearance may not scream "I Am Canadian," at the speaker's heart is a very typical Canadian-conceived design -- no surprise with Paul Barton at the helm. Today Barton is known as the "grandfather of the Canadian loudspeaker industry."

Slide off the grille and you'll see a 6 1/2" woven-fiber-glass-cone woofer with a rubber surround atop a 1" aluminum-dome ferrofluid-cooled tweeter. Porting is done through a wide slot on the lower part of the front of the cabinet. The drive units, which are custom-made for PSB, appear to be of good quality, but a most interesting feature is that the woofer is mounted above the tweeter, something Barton started with his Stratus Gold speakers released many years ago. I asked Paul about this and how it relates to the M2's performance, given that most two-ways have the tweeter and woofer the other way around. But before I get to exactly why it is he has that arrangement, you have to understand his design goals.

As is typical of NRC-aided speaker designers, Barton doesn't just consider on-axis response when he's designing. He looks above, below, to the side, and all the way around the speaker -- everywhere, basically. Doing so is important because in a typical room we don't just hear the direct sound of the speaker -- we hear the direct sound as well as the reflected sound that has been bouncing around the room. Some speaker designers break these various response fields down into direct sound (the sound that comes directly from the speaker to our ears) as well as indirect sound, which is broken down into the reflective response (the first reflections from the floor, side walls, and ceiling) and reverberant response (the response from the sound waves that travel back behind the speaker and reflect off the boundaries and then arrive at the listener). PSB speakers are designed so that the frequency response of the direct and indirect fields are quite similar -- even and controlled on- and off-axis response -- because it has been shown in tests that our ears and brains like speakers that exhibit such behavior.

Back to the woofer-over-the-tweeter placement, as the arrangement might throw some people for a loop. It's important to remember that it's not necessarily the positioning of the drivers but the way the drivers sum, mid-air, that dictates the way the speaker will sound. Barton

explained in one of my many conversations with him that with any tweeter/woofer arrangement, whether it's tweeter over woofer or woofer over tweeter, you will have a "lobe" somewhere off-axis -- the lobe being the interference of one driver with another as a result of having different "acoustic centers." (Place your finger at a point in space and then measure the distance from that single point to center of the tweeter, and then the center of the woofer -- it will be different, and that difference will introduce phase errors.) Typically, the lobe manifests itself as a substantial dip in the frequency response. Barton says that with the tweeter over the woofer, the lobe will normally happen above the speaker's plane, which can result in a discontinuity when a listener stands. His woofer-over-tweeter arrangement results in the strongest lobe occurring toward the floor, which is less likely to be heard unless the listener is lying down on the floor and listening from down there.

## Review Summary

### Sound

"Clarity and definition" -- "strikingly neutral in its presentation and not a speaker that has obvious colorations that jump out and grab you." "There are no trumped-up or laid-back midrange or other such sonic anomalies that might grab your attention but wear thin over the years"; "as neutral and natural as speakers at any price."

### Features

"Slide off the grille and you'll see a 6 1/2" woven-fiberglass-cone woofer with a rubber surround atop a 1" aluminum-dome ferrofluid-cooled tweeter"; "a most interesting feature is that the woofer is mounted above the tweeter." "All Platinum speakers sport real-wood veneer on the sides and rear -- black ash or cherry -- along with aluminum top and bottom caps and aluminum front-edge rails."

### Use

"The top and bottom aluminum caps are rounded, which helps give the speaker a more sculpted appearance, but that also means it will wobble like a Weeble if you place it on a flat surface. So PSB also supplies screw-in spikes and rubber feet for the speaker's bottom should you wish to place the M2 on a flat surface or traditional stands." "The dedicated M2 stands...screw directly into the bottom of the speakers."

### Value

"For about \$2500 (with stands, which I consider more or less just part of the package) you get a fantastic-looking pair of loudspeakers with remarkably few sonic compromises."

Barton crosses over the M2's woofer to the tweeter at 2.2kHz. The M2's binding posts -- which are nothing special but nothing to knock either -- allow for single wiring (the way I used the speakers) and biwiring or biamping should you choose that route. According to PSB's specs, the M2's sensitivity is rated at 88dB anechoically and 90dB in-room, the -3dB point for bass response is 50Hz, the nominal and minimum impedance is 4 ohms, and recommended amplifier power ranges from 15 to 200 watts.

## Systems

The M2's warmed up in my living-room system, which has a Nakamichi AV-10 receiver coupled to a Kenwood DV-S700 DVD player. Speaker cables were Nordost Red Dawn IIs and interconnects were out-of-the-box generic stuff. The next step for the M2s was, of course, my reference system, where they were driven by the Zanden Model 600 integrated amp. The source was a Theta Data Basic transport driving the Benchmark Media DAC1. Interconnects in this setup were Nordost Quattro-Fil, and the digital cable was I2Digital's X-60. Speaker cables were Nirvana S-L. All electronics were plugged into an ExactPower EP15A power regenerator.

## Sound

Even though my living-room system is not used for critical listening -- the setup is not ideal and the electronics are just OK -- the M2s sounded remarkably good. "Full and fleshed-out bass, excellent clarity in the midrange, sparkling highs" -- that's what my listening notes said.

I was amazed at the clarity and definition of Johnny Cash's "Solitary Man" (American III: Solitary Man [American 69691]). Cash's voice had texture and detail without any excess warmth or bloat. Chestiness -- that overblown, resonant quality that often plagues male vocals on lesser speakers -- wasn't there. Ditto for Tracy Chapman's Telling Stories [Elektra 62478], which also exhibited impressive clarity and detail.

All in all, this living-room setup proved to me that you don't need an ideal room or have to spend a fortune on electronics to get the M2s to sound good. That's key for someone who has an inexpensive integrated amplifier or preamp/power-amp combo and is wondering if his electronics can do justice to these minimonitors. Chalk one up to the "put your money where your speakers are" crowd.

In my main system the M2s sounded even better, but in the beginning of the auditioning in this system, the speakers struck me as somewhat unspectacular, which surprised me at first, given how they sounded initially. The M2s weren't doing anything wrong per se -- there was little to criticize -- but they weren't leaping out and grabbing me as some speakers do. It took me about two weeks, and a visit from my niece, who loves music but knows nothing about high-end audio, to realize that the unspectacular nature of the M2's presentation is actually one of the speakers more spectacular traits. Confusing? Not really, at least when you realize that the M2 is strikingly neutral in its presentation and not a speaker that has obvious colorations that jump out and grab you. The reviewer in me was, for a time, confused about exactly what I was hearing.

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My niece was interested in learning more about good sound, so I started with some Ani DiFranco discs -- music from an artist she knows but has never heard through a system of this caliber. I played Not a Pretty Girl [Righteous Babe 7], probably my favorite DiFranco disc overall and one that has remarkable sound.

DiFranco's voice was as pure-sounding as I'd heard anywhere, and the level of detail the M2s could unravel was a textbook case in the intricacies of high-end audio -- exactly what I wanted to demonstrate to my niece. "The Million You Never Made" is one of DiFranco's aggressive bests. The song picks up pace throughout, and by the end her voice and guitar transcend, presenting an almost machine-gun-like assault. I've heard some speakers play this and fall apart trying to keep up, becoming cloudy- and confused-sounding as DiFranco gets edgier in her delivery -- sort of like they're tripping over their own feet trying to keep up. The M2s, though, kept on their feet and kept the distinction between DiFranco's voice and her rapid-fire guitar easy to discern.

"Hour Follows Hour" and "32 Flavors," the two tracks that follow, don't have the same speed and attack, but they're chock-full of rich detail and texture. It was here that I could explain tonal balance, detail, and clarity -- the kind of things that we look for in our high-end systems. Again it's in these areas that the M2s do almost nothing wrong, sounding as neutral and natural as speakers at any price.

DiFranco's discs often have a very intricately and sometimes uniquely laid-out soundstage, and these two tracks are no exception. I learned quickly that the M2s won't play any phasey tricks and lay things outside the left and right speakers if they shouldn't be there, but they will place the images strongly within the soundstage and render a good sense of depth if the recording engineer has done his or her work and actually captured it (it still amazes me how many recordings have no credible soundstage information). That's exactly what we heard on DiFranco's disc -- perfectly placed instruments with strong outlines indicating their precise positions, and an easy-to-discern sense of depth and space.

For a more thorough examination of soundstaging and what I could achieve in my room through the M2s, I brought out an old standby, the choral-based soundtrack to the movie The Mission [Virgin 90567-2]. This disc usually transforms my moderately sized listening room into a nearly full-size concert hall that defies the wall boundaries. Another part of the test with this music is not just how the stage is laid out, but how distinct each voice remains within the stage. On lesser speakers -- which could mean less-expensive speakers but doesn't necessarily mean that -- the singers in the chorus start to overlap and their positions blur. The hyper-precise M2s, though, keep everything distinct, making for a pinpoint-accurate and spacious presentation.

All summed up, the overall performance of the PSB M2s makes them an ideal teaching tool. They do so little wrong, and draw so little attention to themselves. In fact, that is precisely why they were so unspectacular at first. The M2s are rather characterless in their quest for precision. There are no trumped-up or laid-back midrange or other such sonic anomalies that might grab your attention but wear thin over the years. The Avanté IIs were speakers I kept for many years, and I suspect that buyers of the M2s will likely keep theirs for many years as well, because they serve as a conduit to the music, adding little if any coloration to the signal. Such performance is usually more enjoyable over the long term even if it doesn't have gee-whiz appeal right off the bat.

But that's not to say that the M2s are sheer perfection. When I played the recordings I mention, and I explained the aspects of performance to my niece, I also had to discuss fine points about the bass range of small speakers. For example, on DiFranco's "32 Flavors" there's low end whump from the bass drum that the M2s certainly could deliver as deeply as some larger speakers. The M2s strike as low, for example, as Paradigm's Signature S2s, which are the same size and have a similar driver configuration. But there are bigger speakers for a reason -- deep bass.

It's no news flash that you get only so much bass from a minimonitor with a 6 1/2" woofer. In contrast to the M2s is something like the floorstanding MB Quart Vera VS 1F that I'm reviewing next. It has two 6 1/2" woofers, a much larger cabinet, and, as a result, can produce slam-it-home bass that goes deeper and with greater output than the M2s. But the MB Quart speakers are also more than double the price of the M2s. Similarly, PSB has its own larger speakers. How much you value deep bass will help determine if the M2s are right for you.

## M2 and S2

One of the most recent hotshot speaker releases is the Paradigm Reference Signature S2 -- a two-way bookshelf loudspeaker that also represents Paradigm's assault on the state of the minimonitor art. Priced from \$1900 to \$2220 per pair depending on finish, the S2 is natural competition for the M2.

Because I have both speakers at home, one day I asked my wife a simple question: "Which looks better?" Hands down and without question, she picked the M2. That's not to say that the S2 looks bad -- quite the opposite. The heavily lacquered bird's-eye maple is simply gorgeous; she could admire that, too. But it was the M2's lines, styling, and particularly the choice of colors that grabbed her attention. The fact that the M2s have matching stands and the S2s do not only increased their appeal. Me? I'm caught in the middle -- I like the look of both, and because I can admire the sonic qualities of the M2 and S2, there's really no clear winner in my mind.

The two speakers sound more similar than they look, but there still are enough sonic differences between them that some people will prefer one over the other. I found both to extend to roughly the same point in the bass -- no surprise given the speakers' size, both in terms of cabinet and drivers used. The low bass won't sway any buyers one way or the other. The S2, though, does have a hint of warmth down low -- not in the lowest reaches, but above that, around 100Hz or so -- that the M2 doesn't. The M2, on the other hand, has a more gradual transition from the lower mids to the bass region.

There are more significant differences, though, in the upper midrange and highs. The M2s have a little more energy up there -- not much, just a touch. That makes the M2 more forward-sounding than the S2. If the music you play has a lot of midband energy -- and plenty of pop and rock does -- you'll hear it quite easily. The highs of the M2 are also a touch more prominent. Again, not much, but a little bit. Overall, that makes the M2 more immediate-sounding, and the S2 a touch laid-back and lush in comparison.

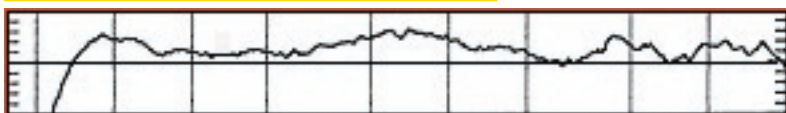
When it comes to soundstaging, both lay out well-specified space with loads of detail, but the M2 tends to place voices prominently and along the speaker plane, where the S2 lays them back just a notch.

The S2 and M2 embody the pinnacle of common-sense two-way bookshelf-speaker design. For \$2000 you should expect a lot, and both speakers deliver a lot. Despite how good these speakers look and how well they're made, you can also spend more and get something that has even more sex appeal and whizzier cabinet materials. In terms of sound quality, though, I have yet to hear a two-way speaker that can outperform these two Canadian champs across the board. Hence, if you're out two-way-speaker shopping and you spend more than \$2000 and don't hear the PSB Platinum M2 and Paradigm Signature S2, you haven't done your homework.

## From Avanté II to M2

When I talked to Paul Barton some time ago about his Platinum speakers, he said, with pride, that with this line, which represents the top of PSB speaker design, he could not compromise and produce inferior sonics. More specifically, he meant that he would not stray from neutrality. For the audiophile who wants a no-compromise two-way monitor that will reproduce exactly what's on a recording (minus the lowest bass), the PSB Platinum M2 holds nothing back. This is a speaker with a character -- a rather characterless one -- that gives a clear view into the performance, for better or worse.

But unlike a lot of speakers that offer studio-monitor-type performance, the M2 doesn't look like some unsightly, industrial black box that you want to hide away. Speakers are speakers -- with drivers, crossovers, binding posts, and all -- and few can be considered art. But the M2 is a looker -- at least as far as stand-mounted speakers go. For about \$2500 (with stands, which I consider more or less just part of the package) you get a fantastic-looking pair of loudspeakers with remarkably few sonic compromises. This makes the PSB Platinum M2 a significant achievement indeed....Doug Schneider



Full NRC Measurements available at [www.soundstage.com](http://www.soundstage.com)

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