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AUDIO REVIEW | Tom Miller

Thiel Audio Power Point

The Perfect Home-Theater Speaker?

The \$1,300 Thiel Power Point surround speaker is the single most extraordinary—the best—home-theater product I have encountered. It is, for lack of a more moderate term, awesome. But I didn't always think so.

Over two years ago, my friend Dick Diamond, then owner of Audio Design in Salt Lake City, showed me a mock-up of the Power Point that Jim Thiel had sent out in search of feedback. My feedback? "Has Jim lost his mind?" It was, um, unusual looking (see the picture) and contrary to conventional wisdom, it was a point-source design, not a dipolar design in accordance with THX's specification for home-theater surround speakers. What on earth was Thiel thinking?

The problem with visionaries is that they see what the rest of us cannot see until much later. Jim Thiel is a visionary.

I next saw, and first heard, the Power Point at the 2000 Consumer Electronics Show. It was a part of the most extraordinary sound I heard at the show (see CES Report, www.theperfectvision.com). What I couldn't tell was how much credit the Power Point deserved in that system. I know the answer now.

It's a Bird, It's a Plane...

To understand why the Power Point is so exceptional, start by looking up. What do you see? The ceiling. There are always

exceptions, but the ceiling is the most universal surface in home theaters—it is the common denominator. As are the floor and walls.

Audiophiles, however, have long known that speakers sound much better away from the room's boundaries. Most home-theater owners don't cotton to the idea of speakers taking up precious floor space; they want those speakers hidden in the wall. Therein lies the relevant conundrum: How do you extract high performance from a set of speakers inconspicuously located at the room's boundaries?

Enter the Thiel Power Point. This is not an in-wall design (Thiel does offer the \$1,000 Power Plane in-wall design). It is an on-wall design of unusual configuration. It is this configuration that enables the speaker's exceptional performance. Indeed, it is so unusual that Thiel is seeking a utility patent on the design.

Let's start with the punch line. The Thiel Power Point provides nearly unbelievable performance because of its remarkable time and phase coherence combined with the clever way it finesses the problems of room reflections and room coverage. First stop: the Thiel-designed (and manufactured) coaxial-con-



figured woofer/tweeter drivers in the Power Point. The high-output one-inch aluminum-dome tweeter, originally developed for Thiel's flagship \$13,500 CS7.2 loudspeaker, sits in the center of a shallow aluminum 6.5-inch woofer designed especially for the Power Point. The benefit of the configuration is that the arrival time of the sounds from the tweeter and woofer are identical regardless of where the Power Point is located. The shallow flare of the woofer minimizes early reflections of the tweeter's output that would smear the sound. Phase coherence is preserved by

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using a first-order crossover (a gentle slope of 6 dB per octave) so that when the sounds of the tweeter and woofer arrive at the listener's ears, their phase will be closely matched. The net result: more coherent presentation of the sounds reproduced by the Power Point.

The cabinet that houses the Thiel drivers is the most noticeable feature of the Power Point. There are no parallel surfaces in the molded plastic cabinet, thus reducing smearing from internal resonances. The drivers are mounted on a surface that sits at a 45-degree angle relative to the surface on which the speaker is mounted. There are three significant benefits that arise from this. First, since the speaker's sound is radiated at a 45-degree angle from the surface on which the Power Point is mounted, it provides excellent coverage of a wider seating area. If mounted on the ceiling, a set of Power Points can provide optimum sound for a larger number of listening locations. Indeed, from a ceiling perch, the Power Point is oblivious to furniture and other sound-blocking obstructions. For a surround speaker, this is a powerful advantage. Second, when a driver is mounted parallel to a boundary surface, wall reflections will cause a dip in frequency response at about 350 Hz and a bump at roughly 800 Hz. With its 45-degree mounting, the Power Point's woofer is closer to the wall than one-half the wavelength of the frequencies produced by the woofer, virtually eliminating the frequency aberrations. Smoother frequency response results in less colored sound and, concomitantly, makes the Power Point less noticeable as a sound source. Finally, the angled mounting of the drivers reduces the strength of the first reflections that could smear the direct sound.

A speaker as small as the Power Point (19 inches long with a maximum height of 5 9/16 inches) is naturally going to have limited bass extension, in this case a lower limit of 75 Hz. Thus, a subwoofer is mandatory (Thiel introduced its first subwoofer at the 2000 CEDIA Expo trade show). One question is whether the Power Point will be similarly limited in dynamic response. At only 10 pounds, the Power Point can be mounted on any drywall surface without alarming Chicken Little. The 89 dB sensitivity and

nominal 4-ohm impedance (3-ohm minimum) make it an easy load for amplifiers from monaural brutes to power-supply challenged AV receivers.

A New Standard

Although the ceiling is the optimum location for a set of Power Points, I couldn't mount the review samples up there. Seems that just as I've finally gotten this home theater finished, it's time to pull up the stakes and head back East. It's time for another year of temporary housing while we build a new home theater (house) in Maryland. With our house headed for the market, I couldn't drill even more holes in the walls. So, the next best surface available was the floor.

After moving obstructing furniture out of the way, I wired up four Power Points for surround purposes—two at the 90-degree locations and the rear pair at approximately 150 degrees. Without any speaker break-in (they need at least 50 hours to become full bodied in tone), I resumed a movie I had paused the night before—*Star Trek II: The Wrath of Khan*. In Chapter 9, Kirk, McCoy, and Savik search a deserted space station. As they move through the passages, we can hear the subtle mechanical sounds that help define the space. Instantaneously, I was struck by the credibility of the environment. I was within that station and it surrounded me completely. But what was most remarkable was the naturalness of that environment; there was no sense whatsoever that I was listening to an artificially generated soundfield. For the first time since I entered the world of home theater, I could not hear the machine in the ghost. Turning my head from side to side, cranking my neck all the way around, made no difference. Not only could I not locate the Power Points as the source of the sounds, I could not hear fields of sound around the speakers. It was, as is often reported but rarely accurate, a continuous field of sound that extended to all points. The coverage was so uniform that it mattered not where I sat. Only when I approached a single Power Point and leaned directly over it could I tell that it was producing sound.

The Power Points' vanishing act relates directly to another distinctive performance characteristic, their stunning subtlety. On

program material that boasts refined acoustic envelopment such as *James Taylor, Live at the Beacon Theatre*, the only way you will ever notice the surround field generated by the Power Points is by turning it off. But where the ambience is more pronounced, such as within the stone halls of *Elizabeth* or the large arena in the Eurythmics' *Peacetour* DVD, the enveloping sound changes character; it grows in volume and duration. With the Power Points, *much* more than any other speaker I have heard, I more distinctly heard the differences between the surround information from DVD to DVD. Or even within one DVD, such as when I compared the two-channel track (using the Lexicon MC-1's Logic 7 surround matrix) of *James Taylor* to the 5.1 track. The ambient characteristics of these two approaches are remarkably different, with the 5.1 track being more explicit in the decay of vocals in the surround channels.

But what of imaging in the surround field? You might expect speakers sitting on the floor to produce discrete images that adhere closely to the floor. It was a considerable surprise then to discover that not only did the Power Points cast images throughout the surround field, they were capable of recreating more discrete height information than even the Magnepan QR1.6s. For example, in the opening scene of *A Bug's Life*, a chirping bird flies down the left side of the surround field. The Power Points created such a credible image of this bird that I could track its sonic flight down the side of my room with precision until it vanished into the left rear of the room. Did I mention that this image was, throughout its flight, only a foot below my 8'9" ceiling? That, my friends, is what low distortion, phase- and time-coherent point-source speakers will buy you in the surround world.

As impressive as the *Bug's Life* trick was, the Power Points had more pleasures in store for me. Sitting between the rear Power Points (at the back of the room), I encountered a most unusual surround field. I was sitting at the back of a field that was layered three-dimensionally in front of me. During the forest rain scenes in *What Dreams May Come*, it actually sounded as if I were in a redwood forest with the rain falling in the trees around me. That is, the sound of the raindrops appear from an infinite number

of points floating throughout the room, just as rain *would* sound falling in the trees.

The Thiels also reproduced the beat of dragon wings and Draco's voice in Chapter 12 of *Dragonheart* better than I have ever heard them. My only quibble is that the timbre of Draco's voice lightened slightly as it passed from the front channel Magnepan R/3.6 speakers to the Power Points. But the image height, focus, and continuity of movement were impeccable. Indeed, the Power Points pulled off another stunt I didn't think possible—they produced a solid image directly behind me (the 180-degree location). They repeated this trick in Chapter 4 of *The Haunting* when the maid closes the door to Eleanor's room (this was *without* the EX track engaged). Keep in mind that the rear speakers were approximately 17 feet apart.


When put to the dynamic test, the Power Points also shone. The Omaha Beach scene in *Saving Private Ryan* was reproduced with full dynamic impact, although the Power Points were so precise that the marvelous machinations of sound

designer Gary Rydstrom were for the first time exposed as such. The collage of gunfire and explosions sounded more deliberate than chaotic.

Moving Forward

Naturally, I couldn't resist assigning to the Power Points main-speaker duties (left and right, in this case, since I had only four on hand). Again, the imaging was a delight, floating comfortably above the floor at a lifelike height. So much for the notion that small speakers create small soundstages. More impressively, the dynamic attack of the Power Points was sharp and impressive. The crack of drumsticks on the snare drum in Steely Dan's *Two Against Nature* was reproduced with lifelike authority. I did, however, notice that the Power Points were slightly forward in the treble, though not objectionably so. I find it intriguing that this sonic characteristic was not noticeable when the Power Points were used as surround

speakers. Nevertheless, I wouldn't hesitate to use seven Power Points, mounted on the ceiling, for a state-of-the-art home theater (and I intend to include wiring in my new home theater for just this purpose). The Power Points had no problem with the acoustic volume of my 8,000 cubic foot space, and I suspect that their diminutive size will make them a natural for smaller venues.

In all my years of reviewing, I have never encountered a product that so completely met a need as the Power Points meet the needs of high-performance home theater. In this case, Thiel's solution to the aesthetic demands of home theater has yielded a breakthrough in sonic performance. The Power Points are not flawless, but they are so far ahead of their competition that they might as well be. Years from now we will look back and mark the arrival of the Thiel Power Point as the herald of a new age in high-performance home theater. And I wouldn't be surprised if I were still using the Power Points at that time. 

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