

TAV

The Audiophile Voice

Precision Transducer Engineering's Phoenix Loudspeaker The Complete Review



'Superb detail, tight and full bass, clear high end, smooth midrange, solid soundstage - I could go on and on.'

--Hugh Mandeson, TAV

 **PTE**[®]
PRECISION TRANSDUCER ENGINEERING
'There's magic in the music.'

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Precision Transducer Engineering's Phoenix Loudspeaker by Hugh Mandeson, The Audiophile Voice

Making the rounds of T.H.E. Show at the Flamingo Hotel this past January, I was surprised to find out about the *Precision Transducer Engineering (PTE)* speakers. These relative newcomers have internal amplifiers for each driver and use crossovers and equalization on the same board as the amplifiers. On first listen, I was very impressed with the imaging and top to bottom coherence of these speakers. The bass and punch from these two 6.5-inch drivers not only impressed me but my rock musician friend also gushed appreciably when we heard them make music. These are some very musical speakers and draw little attention to themselves. The center image I heard was as big and full as I'd ever heard. When I was asked to review these at home, I jumped at the chance.

Powered loudspeakers are nothing new. Computer speakers have been self-powered since the beginning. One account I recently read traces them back to 1975 for high fidelity use. I would not be surprised if there were even earlier examples. Designers I've chatted with tell me how much they wish they could mate the amplifier to the speaker or to each individual driver. Noting how prevalent the practice is in studio monitors now, I was very curious about the PTE speakers.

The PTE literature states, "The Phoenix is that rare combination of high output and high fidelity. From 32 Hz to beyond 20 kHz, your music will be reproduced with stunning imaging, and the extended bass and dynamics only possible in a powered loudspeaker."

The full title of the product is "The Phoenix High Output Bi-Amplified Reference Monitor" by PTE - *Precision Transducer Engineering*. They weigh 75 lbs. each and are 28 inches high by 12 inches wide by 15 inches deep. Inputs are via RCA (5.09 kOhm) or XLR balanced (14 kOhm) with a rated sensitivity of 100 dB SPL for 0.1 Volt rms input. The Frequency response is specified as 32 Hz to 22 kHz ± 2 dB.

I spoke with one of the two principals, Mark Thoke, over the phone for some insight into the background of this product. He gave me a lot of technical answers regarding the development of the Phoenix and their previous product that is literally called The Statement. He told me this speaker line had been developed principally by his partner Jim Rush, who over the last 30 years has been with some of the best speaker companies you can name. You can read Jim's white paper: "The Case for Powered Speakers" on the *pteacoustics.com* website for an in-depth look at the design goals and principles. Jim points out that numerous adjustments are available with powered speakers as the designer can implement internal adjustments to extend the response or correct anomalies, peaks, and dips in the speaker itself as well as correct the phase relationship of the drivers. It seems to me a great deal of thought, measurement, and testing was involved in the design of these speakers.

The drivers were initially chosen for overall flatness & are vibration isolated, as are the amplifiers in the back -- mounted on aluminum stock and well braced. The rear and sides of the cabinet are 1-inch MDF, the baffle 1.5 inch, and there is internal bracing and supports throughout. The enclosure is vented with dual rear venturi ports, which increase overall efficiency. There are some room mode and tweeter level adjustments on the rear & inputs can be either balanced XLR or unbalanced RCA. PTE claims less than 0.003% distortion and 120-dB signal to noise in the internal electronics, which use state-of-the-art operational amps and 1 per cent precision matched resistors and capacitors.



The circuit board itself uses four layers, has extra heavy traces with through-hole mounted parts. A Scanspeak tweeter is used for its high sensitivity and low distortion. Careful matching of all the components yields excellent imaging and as the literature says, "Beautiful dynamic detailed sound you can listen to for hours." I liked what I heard at the Show and was ready to try these at home.



They arrived in double boxes. The wood finish is very nice & attractive as are the smooth rounded edge black faces. The grille covers are held in place magnetically which is sort of cool, but I did my listening with them removed. Mr. Thoke was good enough to deliver a set of Sound Anchor stands custom made for this speaker, which turned out to be the selfsame pair of speakers I heard at T.H.E. Show in Las Vegas. The stands bolt to the bottom of the speaker and come with four-inch circles of sticky dampening material. Mark gave me a quick run-down on the rear panel controls. The input selector switch offers RCA unbalanced (right), XLR balanced (left), or a center position mute. There's a three-position switch for level control of the bass; positions are "Corner" (no boost), "Near Wall" or "Free Space." The tweeter settings are made with a combination of two switches to get ½ -dB steps in cut or boost up to 2 dB. This is a boost to the driver and not a lift. I preferred them with ½ dB boost.

The manual recommends placement at least four feet from the rear wall. I found that five feet was perfect for me and I created an equilateral triangle of about nine feet with my listening position as the third corner. I did use a bit of toe-in as it was necessary to gel the sound stage. Once set up, the speakers opened up my listening room to many different recording and concert venues. Whether played loud or soft, the Phoenix speakers just disappeared and never called attention to themselves.

I spent many hours throwing everything I could think of at these speakers. They never did anything but play music. There were zero issues the entire time they were here. Mark warned me the backs of the speakers might get too hot to touch but I never experienced that. I did feel that the very high sensitivity of 0.1 volt input for 100 dB SPL was excessive, as my DACS put out up to 2 V p-p. I would like to have a gain reduction switch on the speakers but I was able to work with them; I just had to be very careful with the knob of my Monolithic preamp as barely a quarter rotation was insanely loud so I had a small range of adjustment.

I always start with the opening track from Artie Traum's "The View from Here" on Shanachie. It is a wonderfully recorded and performed album with Tony Levin and Steve Swallow on basses. The Phoenix speakers had no problem creating the vast panorama of the opening track "Mysterious Stranger." Mostly acoustic, it was a lush image, both finely nuanced and rhythmically taut. Tony Levin's muscular but sensuous bass line sat clearly behind and gluing it all together. Everything was crystal clear including the slight fuzz used on the bass guitar.

I advanced to track 4 "Abracadabra" with singer Gabriela Anders. I consider this track to be the worst-case sibilance torture test for Speakers and I could not fault the Phoenix's reproduction in the least. Many speakers make me cringe when I play this but not here. So far I was impressed.

Next I played some pure single-point microphone recordings to really test the spatial mettle of this system. Without a doubt, Opus 3 and MA Labs recordings stand out for me. I find Todd Garfinkle's MA Labs releases to be overall great recordings and performances but I particularly like his own releases. On Further Attempts, the opening track begins with loads of jangling and clanking percussion embroidered in the rich and deep ambiance of the location. It then melts into some beautiful gently floating piano, which is soon joined by acoustic bass and quiet percussion. Not for a second did I even think about speakers playing, as I was completely rapt in this exquisite music which has tremendous space and very, very fine dynamic

and timbre shadings. The deep and serene quietness of the venue is faithfully implied; these speakers are really quiet. I had to press my ears to the speaker to hear any electronics noise but boy, did they get loud when I wanted.

My copy of the Opus 3 release of the of Cyndee Peters and Eric Bibb came out next. I have used the "House of the Rising Sun" track a lot at CES in prior years. The "Wayfaring Stranger" track includes a choir of young girls and starts with sea of wordless voices; when Cyndee starts singing, it is definite goosebump city. It was perfectly rendered by the Phoenix.

Then I played "Uncommon Ritual" from the CD Of the same name, collaboration from Edgar Meyer, Mike Marshall and Bela Fleck's recorded at Ocean Way Studios in Nashville. The thick, textured bowed bass and heavy breathing materialized right before me. The reproduced images were rock solid if just a tiny bit smaller than I have heard them in the best of circumstances. The palpability was amazing and the image clear, deep, and distinct.

I played lots of jazz as well, old, new, big bands, live, studio. Pat Metheny's Secret Story gave me chills down my spine. This beautiful production and divine music offers a stunning image, with an exotic and broad soundstage that is delicately textured. Arlid Anderson's "Molde Concert" with Bill Frisell knocked my socks off. The excitement was tangible. It really had a very live, present, & fluid sound. It was a totally focused recreation that had tremendous energy that seemed unbounded.

Self-powered speakers are not new but haven't really caught on with audiophiles who usually prefer to choose their own amp - not always the best idea.

Finally, it was time for some orchestral music to settle down with. The Sony Classical SACD Copland conducts Copland with the London Symphony is a delightful disc. I was transported to the concert hall, and found the presentation dazzling. Great rhythmic power and layered instruments unfolded inside this marvelous performance. The detail was superb, as were the dynamics. From loud to soft, there was nothing cold or mechanical about it. The soundstage was always solid and clear during the quietest and the densest parts without any audible strain or artifacts.

Different DACs were subtly different as were cable changes; these are very revealing speakers. When I tried an old, cheap, consumer CD player, it was immediately dreadful sounding, small, hard, and dimensionally flat. The Phoenix just lets all that stuff through. These speakers will respond best when fed the very best sources and deserve such. Only at the very bottom of their range were they lacking the tiniest bit of depth and I am talking about what only a subwoofer can do. I note that while PTE does offer The Foundation sub-woofer, I did not test it for this review.

Rock music especially was just fantastic fun to listen to with these speakers. It was more than just the potential for volume; they just seemed to have such a tight full bass & particularly unrestrained midbass. Rhythms had a great amount of drive. They are smooth and integrated and as a complete system they speak with honesty and clarity.

I could definitely live with these speakers and enjoy them. I would love to use them in a control room too, as I think they are that faithful to the source. You might just have seen your giant amplifiers and those fire hose-thick speaker cables for the last time. The PTE Phoenixes are definitely a bargain in my opinion and worth an audition.

Hugh Mandeson, The Audiophile Voice

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