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Subject: 2 Pi Tower versus 3 Pi

Posted by [rkeman](#) on Fri, 29 Apr 2011 16:02:16 GMT

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A set of four 2 Pi Tower loudspeakers were completed about a month ago for use in friend's home theater. A delay in construction has allowed an extended audition of the 2 Pi tower in my listening room. These particular 2 Pi Towers are constructed from 3/4" particle board with a double thickness front panel and flush mounted drivers. All other aspects of the design (internal volume, bracing, damping material, etc...) are to Pi Speakers specifications.

The 3 Pi's used for comparison have the B&C DE250 tweeter, Acoustic Elegance TD12S woofer, and udgraded Erse/Mills crossover components. Both loudspeaker sets have been driven by a Marantz SR8002 receiver with and without Audyssey MultiEQ room correction. The low frequency effects (LFE) channel are handled by a pair of custom subwoofers based on Adire Tumult 15" drivers in 2.75 cu. ft. sealed enclosures and powered by the O Audio 500W plate amplifier. Comparisons of the 2 Pi Tower and 3 Pi as satellites using crossover points of 60 - 100Hz have also been performed. The vaulted ceiling listening room has extensive acoustic treatments including four corner bass absorbers, first reflection point absorbers and extensive diffusion on the front wall.

Positioning the 2 Pi Tower is more critical than with the 3 Pi and a greater distance from the side wall and less toe-in are required for optimal imaging. The sensitivity of the 2Pi Tower is significantly higher than most of the competition and it should not require much power in most domestic environments unless very high levels are desired. The tonal character of the 2 Pi Tower is reasonably neutral. The mid bass is slightly lean due to the inevitable "floor bounce" notch dictated by the height of the woofer, and the low bass seems well controlled. As with any vented speaker, the woofer should be protected from high level low frequencies to prevent bottoming out the driver. Action movie fans take note!

So what are the differences between the 2 Pi Tower and 3 Pi? Clarity and imaging. The 3 Pi simply provides a greater degree of resolution and detail. This is most apparent through the upper bass and midrange and adds a delicacy to the sound that audiophiles search for but seldom find. The 3 Pi also produces images with greater stability, size and depth. Hall cues and Foley effects in movies are more realistic. Constant directivity designs such as the 3 Pi minimize the influence of the room and yield significant benefits even in acoustically treated environments such as my home theater.

Is it fair to compare a speaker using \$90 of drivers and crossover components to one costing about \$500? Probably not, but it is clear that the 2Pi Tower and 3 Pi share a common heritage. Both are high sensitivity loudspeakers offering a neutral tonal balance and superb dynamics. There is very little competition for the 2 Pi Tower in its price class and even well above it. If the thought of building cabinets is appealing and the budget modest, the 2 Pi Tower deserves a long hard look.

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Subject: Re: 2 Pi Tower versus 3 Pi

Posted by [Wayne Parham](#) on Fri, 29 Apr 2011 17:45:56 GMT

Wow, excellent review. Thank you so much for taking the time to write it.

It is very well written, and I might also say that I completely agree with your assessment of these two models. I find it comforting to see others perceive my loudspeakers the same way I do.

I want to add one small comment. I agree with you 100% on the floor bounce notch from the two takes it away completely. If these speakers are used in a bedroom, the mattress prevents the notch when you're sitting on the bed. The drivers are just up high enough to get over the bed, and there's no way for the floor bounce to reach your ears. So they make a good little bedroom system.

Of course, for home theater or music listening rooms, there's no question that it is better to put mains at ear level and use flanking woofers blended through the modal range. That's the best approach I can think of. But for a secondary bedroom system, you can get away with the "mattress treatment" to prevent the floor bounce notch.

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Subject: Re: 2 Pi Tower versus 3 Pi  
Posted by [Muzikal-JRNE](#) on Fri, 29 Apr 2011 18:45:17 GMT  
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Thanks for that review "rkeman"! I am building a fully upgraded version of the 3pi speakers right now w/ the DE250 and TD12S. I am just waiting for the woofers to be built and shipped (It has been just over 2 months now). Right now I can only listen vicariously through others.

Cheers, {from central Florida}  
Joe

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Subject: Re: 2 Pi Tower versus 3 Pi  
Posted by [justphil](#) on Sat, 30 Apr 2011 00:35:00 GMT  
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I love reading well written material mostly because I lack that certain "something". That is an awesome write up and it makes me feel so happy to be nearing the finish of my 2pi studio for my center channel. I will be ordering my kit soon and now am very anxious. I wish I had the money to build 3pi's but there is no possibility in it at least not any time soon. I will then be building 2pi towers for my L/R channels and then probably a set of 1pis for my rears. It's killing me to have to wait as I am a total instant gratification kind of guy.

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Subject: Re: 2 Pi Tower versus 3 Pi  
Posted by [Bill Epstein](#) on Sat, 30 Apr 2011 02:17:18 GMT  
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10 years ago I had a home theatre with 2 JBL 3677s that had 2226s swapped in as woofers and NHT surrounds as rears. NHT Super Sub also. Then I sold the NHTs and got 2 more 3677s, also with 2226s. Standing joke was that my speakers were bigger than the TV (32" Toshiba) Subwoofer was a 4648 with 2 more 2226s.

Then there was a 6 year hiatus w/o any TV.

Now I have a TV again and 4Pis in front, period! Watched 1/2 of Fellowship Of The Ring tonight and didn't miss surround at all.(My townhouse neighbors didn't miss the subwoofers, either)

Point is, movies in 2 GREAT channels are damn fine; maybe finer than lesser 5.1. Better to skip the extra channels and build the best 2 you can.

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Subject: Re: 2 Pi Tower versus 3 Pi  
Posted by [Wayne Parham](#) on Sat, 30 Apr 2011 03:06:50 GMT  
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I definitely agree with you there, Bill. Most of the time, I'm running two-channel too. Don't miss much.

To tell the truth, most of what I listen to doesn't have the surround channels and I don't miss it. My office and bedroom systems are two-channel and I spend a great deal of time there.

surround channels in my living room. Just adds some air, effects and sometimes background music. So that's fun too. Not a night and day difference, kind of a subtle improvement. It actually kinds of surprises you when something happens in the side/rear channels.

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Subject: Re: 2 Pi Tower versus 3 Pi  
Posted by [steve f](#) on Sun, 01 May 2011 02:21:36 GMT  
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Great review rkeman. I agree completely with all the commentary.

Like Bill, I tried surround systems, and have abandoned them for a return to good old stereo. I am convinced that quality stereo and subs is THE way to go.

I might be the only forum member who prefers the 1Pi to the 2Pi speakers. Yes, they sacrifice some bass, but I think that the upper mid-range is a bit smoother and better defined, but they are

both very good speakers. You can't go wrong with either. The Pi dynamics are so much more lifelike than lower efficiency audiophile speakers. (Currently using 1.6 cubic foot kinda/sorta' 1 Pi towers which sounds just killer especially with small tube amps.) I won't ask Wayne to choose between his children.

Justphil you will have a great and wonderfully dynamic system with the 2Pi fronts and 1Pi surrounds. Please consider Wayne's advice for multi-sub.

I hope to start my 3Pi's in a couple of months too.

Steve

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Subject: Re: 2 Pi Tower versus 3 Pi  
Posted by [justphil](#) on Sun, 01 May 2011 03:34:46 GMT  
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I will have multi subs for sure. I am terribly excited as I am sure my old speakers are not anywhere close to these in efficiency. I feel I am playing my system louder than it sounds if that makes any sense to you

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Subject: Re: 2 Pi Tower versus 3 Pi  
Posted by [steve f](#) on Sun, 01 May 2011 04:50:02 GMT  
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I get it. besides volume approaching live levels, the sound isn't compressed. Much more like live. Your amps will be happier too. Pi speakers are very easy to drive.

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