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 competion 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.