Subject: Re: 2-Pi Tower floorbounce
Posted by Wayne Parham on Sat, 21 Aug 2010 15:08:48 GMT
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Oh, yes, you'll see it in measurements. If you lay the speaker on it's side, the notch is gone because the midwoofer is closer to the ground, shifting the self-interference notch up in frequency. Of course, you see anomolies at higher frequency when you do that.

You can do a real ground plane measurement, in a pit facing upward with the front baffle flush with the ground. Then there is no self-interference. I do this sometimes using sheets of plywood "wings", sort of raising the ground up to the baffle level. But these are all academic exercises, arguably somewhat pointless, because the speaker will never be used in an environment like this.

The way to solve the problem, in my opinion, is to provide smoothing from other sound sources. The multisub approach accomplishes this. Of course, in this situation, a lower midrange floor bounce, the smoothing woofers will have to be run fairly high in frequency to blend in and smooth the notch. They have to be placed fairly close, just down at the feet of the towers.

Another approach is just to live with the floor bounce notch. That's what 99% of people do. I know many people that put monitors on stands or have tower speakers, and in each case, the floor bounce notch is created. It is definitely measurable, and you can hear it too if you A/B with a setup that has no notch. But without an A/B comparison, most people don't notice it.