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Subject: Two Pi Towers are HUGE!

Posted by [GarMan](#) on Fri, 31 Oct 2003 11:55:16 GMT

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I had the panels cut for the Pi Towers last night from a couple of sheets of 1" MDF. I adjusted the external dimensions by 3/4" to maintain the internal volume (by my calculation, the internal volume would have been off by 13% if I used 1" without adjustment). For the first time, I got a real sense of the size of these speakers and they are huge! I know, I know. I've read the specs many times, but I never bothered to imagine what a four foot tall tower that's 16" wide would look like.

Needless to say, my wife's not too please. She's given me two options. The only way something this big is going to sit in the living room is if it ends up looking really nice, meaning it has to be finished in wood veneer and she decides on the finishing. Or two, I cut it down to the "bookshelf" size. Out of curiosity, do the towers have to be 46" tall? If I decide to cut it down by a foot, would I be able to compensate with adjustments to port dimension? I took a brief look at the Alignment document and was a little confused by it. For the Alpha10, I found that:  $V_{ad} = 2.9 \text{ ft}^3$   $F_{rd} = 50 \text{ Hz}$  What is  $Q_d$ ? Is that a fixed parameter for the driver, or a variable depending on  $V_e$ ? thanks, gar.

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Subject: Re: Two Pi Towers are HUGE!

Posted by [Wayne Parham](#) on Fri, 31 Oct 2003 19:25:12 GMT

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You could make the cabinet size anything between about 1.5ft<sup>3</sup> and 5.5ft<sup>3</sup> and expect good results. As long as the cabinet is tuned to 40Hz, response will be flat down to its lower cutoff. Bass extension is made lower in the bigger boxes, of course.

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Subject: Re: Two Pi Towers are HUGE!

Posted by [jlharden](#) on Fri, 31 Oct 2003 19:30:35 GMT

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Hi Gar, I believe  $Q_d$  is the recipricol(sp?) of  $q_{ts}$  and is one of three parameters used in the PiAlign program. I'm sure the 2 pi towers can be scaled down from the full sized version with the main sound difference being a change in the low frequency response. The Alpha woofer could be modeled an any simulation program(I like WinISD and BoxMod) to predict results of volume/tuning change. I'm sure you can get smaller and have good sound, though I'd consider building them full size and letting your wife pick your veneer. Doesn't seem like such an unreasonable compromise. Good listening! Jerrod

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Subject: WAF advice

Posted by [Tightwad](#) on Sat, 01 Nov 2003 15:02:38 GMT

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(1) Get preapproval, always. (Too late for this one.)(2) Yes, make them look good. I mean, the wife ain't going to go for bare MDF, no matter how big or small the boxes are. I happen to think cabinet-grade birch plywood with clear finish can look very good, in a "Scandinavian design" sort of way. (See photo.)(3) Offer the speakers as plant stands. A nice big fern or whatever can look really nice on top.Good luck.

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