Subject: 2 Pi tower / transmission line
Posted by spkrman57 on Sat, 31 Aug 2002 15:51:46 GMT
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Wayne, I know this is out of the norm. I have a pair of Radford transmission line cabinets that I bought empty (no drivers), Since it will take just a little extra work before I install the 2-Pi tower system, I want to try and put the alpha 10 in this cabinet(orignally made for 10" woofer/low fs) and all I have to do to install the piezo is mount it on a board to go where a plate for the old mid/tweeter dome combo went. I don't expect much out of this, since TL design's usually don't work well with high-efficiency drivers, but since it will be so easy to put together just for the experimental - educational purposes, I just want to know what I might expect. The original tuning for the TL was 32 hz I believe from old magazines(Stereo Review Buyers guide) The size of the cabinet is with 10 % of the Pi tower cabinet, and given the dowels inside and such, will have close to equivalent Vb. Please remember, I am only doing this for curiousity and because it will be simple to install. I know I will be invoking the wrath of the "Politically Correct" for even thinking of trying this, but I learn more through experience than all the reading I can digest. Open to any and all opinions on this. Regards, Ron

Subject: Re: 2 Pi tower / transmission line
Posted by Wayne Parham on Mon, 02 Sep 2002 19:40:18 GMT
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Check out Daniel Russell's paper about transmission lines called, "Acoustic High-Pass, Low-Pass, and Band-Stop Filters."

Subject: fly in the ointment
Posted by Sam P. on Mon, 02 Sep 2002 20:43:23 GMT
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Nice idea, but flawed UNLESS the TL tuning and driver parameters are compatible. The Fs of the driver you mention is WAY higher than the tuning of your enclosures. Any low end support from the TL will be too far down in freq. to extend the drivers bottom end in a meaningful way, and also will not provide impedance peak damping where you need it, around the drivers Fs. That said, I

was recently told that high Qms "was a good thing in TL's". If you can shorten the TL enough to re-tune it higher, MAYBE things can be worked out OK. Installing a new exit port, somewhat closer to the driver, should not be that hard. Check out the full range/single driver forum, and try to locate the TL page, lots of design info, some good, some flaky, you will need to sift some for the gems. Sam