Subject: 2 Pi Towers with PSD2002 crossed over at 1.6Khz
Posted by jshoc on Tue, 24 Jan 2006 00:20:18 GMT
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My son Hakn Jr and I  think the 2 Pi Towers are awesome.  He gets a real kick when he invites his buddies over and plays some tunes for them - they are very impressed.Just picked up a pair of JBL 2446Js and currently integrating them into my 4 Pi Towers (Lapaire's) crossed over at 500hz (Paschetto's).  So, I have a pair of 1.6Khz PI crossovers and PSD2002 tweaters with horn flairs. The plan is to put the PSD2002 on top of the towers, connect the Alphas to the crossover and give them an audition (disconnect the KSN tweeters). Any recommendations on how they might sound?  The Alpha 8 are a little less efficient that the Deltas' - are they sufficiently different to change the tweeter attenuation?Any comments are welcomed.Hakn

Subject: Re: 2 Pi Towers with PSD2002 crossed over at 1.6Khz
Posted by GarMan on Tue, 24 Jan 2006 13:04:21 GMT
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Hello Hakn,I did the exact same mod a couple of years ago.  Called it my version of the "Thermionic-2".  Great sound.  More refined and controlled.  Loss a bit of "liveliness" though.  I think one of the things that make the Studio-2's sound so great is the simplicity of its crossover. Somewhere between zero and first order.I've since put this set up away and moved to the Theatre-3, so I can't have you the compensation network values.  Wayne's crossover document should give you the values thoughWhat horns are you using with the 2446?  I had 2380A's on my 2445 for a while, but found my DIY smith horns to sound nicer.  Less edgy at high volume and larger sweet-spot.gar.
 "Thermionic-2"

Subject: Re: 2 Pi Towers with PSD2002 crossed over at 1.6Khz
Posted by Wayne Parham on Tue, 24 Jan 2006 14:07:48 GMT
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Let me know if you need the other crossover schematics.  I have them for 500Hz, 600Hz, 800Hz, 1kHz, 1.2khz and 1.6kHz.

Subject: Re: 2 Pi Towers with PSD2002 crossed over at 1.6Khz
Posted by jshoc on Wed, 25 Jan 2006 02:00:09 GMT
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Wayne - thank you very much for your offer!I should have the 2 Pi Tower with the PSD2002 tweeters staged tomorrow.  I will keep you posted.Also, I want to take this opportunity to thank you Wayne for hosting a great site. This hobby/site has introduced me to some extraordinary people, and has brought me closer to my boys - we build Pi speakers, kit based vacuum amps and preamps together.It a pleasure and an honor to be part of the Pi community!HaknJim

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Subject: Re: 2 Pi Towers with PSD2002 crossed over at 1.6Khz
Posted by Wayne Parham on Wed, 25 Jan 2006 14:59:14 GMT
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Thanks, Jim, you're too kind.  Don't miss GPAF if you can make it!  Tulsa, May 5th, 6th and 7th.

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Subject: Re: 2 Pi Towers with PSD2002 crossed over at 1.6Khz
Posted by Haknnhendrix on Thu, 26 Jan 2006 15:52:39 GMT
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Garman,I don't know what flare I have- I picked up the Horn used, and it was without the model number.  It is like the 2380, but without the rectanglar channel.We set up the PSD2002 with the PI 1.6Khz crossover - with out the LF Zoebel.  The sound is almost there - I think a little more attenuation on the HF to match the woofer is going to help.The bass is less pronounced that it was with the 2 Pi Tower - with that simple crossover - really miss the low end punch.  Is it conceivable to use the HF Pi 1.6Khz crossover, with the 2 Pi LF crossover to get some of the LF back?Hakn

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Subject: Re: 2 Pi Towers with PSD2002 crossed over at 1.6Khz
Posted by Wayne Parham on Thu, 26 Jan 2006 16:00:18 GMT
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find that once you attenuate the HF horn to match levels, you'll like the sound.  I imagine the bass doesn't sound as punchy to you simply because it is overpowered by the treble.  Keep the Zobel, in fact, leave the rest of the crossover as-is.  Just change the values of R1, R2 and C1 to increase tweeter attenuation a few decibels and see how it sounds.  Try the 12dB and 14dB setups for starters.

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Subject: Re: 2 Pi Towers with PSD2002 crossed over at 1.6Khz
Posted by GarMan on Thu, 26 Jan 2006 19:33:29 GMT
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Hakn,Like Wayne said, the bass is there, but it's being overpowered by the treble. Put the Zobel in to further cut the midrange from the woofer. Without the Zobel, your crossover's not acting like a true 2nd order filter.I pretty much duplicated Wayne's design in his crossover document with 12dB attenuation in the compensation network.gar.