Subject: Re: second array already in the works
Posted by darkmoebius2 on Mon, 31 Aug 2009 17:57:35 GMT
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Villain3g wrote on Mon, 31 August 2009 11:27I saw that in there, but thought it was a little unclear. Because I know 10k is audible. Without going to vertical ribbons, it is going to be nearly impossible to do better than that. Eric J/Marlboro was able to shave enough flange off Dayton ND20FA-6 3/4" Dome Tweeters to get comb filtering out to 15k. But, if I remember correctly, he mentioned that he wouldn't go through all that hassle again if he had the chance. You might want to try the rear-mount version, Dayton ND20FB-4, of his tweeter which has no flange. Could save you a hell of a lot of time, frustration, and get nearly the same, or better, results than the Tang Band.
Quote:Next question relates to pairing the drivers. The tweeters are 92db. The woofers are at 88db...I am afraid that they will be too loud compared to the woofers. Funny hat should ask that exact question this morning! I was up all night trying to crash-course myself on driver matching and crossover/filter design.

Elliott Sound Products has excellent tutorials on all aspects of DIY Audio. I suggest you read all of these primers related to speaker/crossover design. I did last night and my understanding(while still beginner) is lightyears ahead of what it was before. These are all short (1-4 pages) but pack a lot of information, yet are still easy for the beginner to understand. He also provides free complete designs for working passive and active crossovers, notch filters, etc - all you will need.

Design of Passive Crossovers
Benefits of Bi-Amping (Not Quite Magic, But Close) - Part 1
Benefits of Bi-Amping (Not Quite Magic, But Close) - Part 2
Active Filters
Effects Of Source Impedance on Loudspeakers
Phase, Time and Distortion in Loudspeakers
Baffle Step Compensation
Doppler distortion in loudspeakers - Real or Imaginary?

Quote:It looks like 12 woofers power tapered in 2,4,6 orientation is most appealing, resulting in 8.7 ohms. Would that give me an efficiency of around 98db?...If I had 32 tweeters, is there in optimal arrangement that would result in an appropriate efficiency?

I leave those questions to those with more experience and knowledge than me.

Quote:Can I have different impedances for the tweeters and woofers? Does that impact the design of the crossovers? Absolutely to both questions. Quote:I was hoping the use parts express's 2way 3k 8ohm crossover. Don't. Read the links I provided above and you'll see why that would completely undermine all the planning and design you put into your arrays. Build your own, active if possible.