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Subject: Re: Thanks Wayne! "4Pi" success.

Posted by [Wayne Parham](#) on Thu, 01 Jul 2010 14:51:15 GMT

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Those speakers look fantastic! Three cubic feet tuned to 38Hz, yes, those are the same as four with the exact same finish, darker sides and lighter front. I just think it looks great. Congrats!

Do you have any way to measure the polars of your speaker, to dial in the crossover for that horn? I am happy with the results I get with my horn, but the one you've used is probably the one most interesting to me of the horns discussed on the Econowave and Geddes threads. I'd be interested to see what crossover changes would be needed, if any, to get the forward lobe aimed properly.

Crossover optimization for DI-matched two-way speakersThe DI-matched approach has become so popular in the last few years, and I am happy to see it, but to me it is important to get the vertical directivity right, not just the horizontal. After all, the ceiling and floor are almost always the boundaries nearest the speaker, so those reflections are maybe the strongest contributors to the reverberent field. That's why I think it is important to use a horn with pattern that's a little narrower in the vertical, and to match it with the null angle, set by driver placement and crossover phase. More information on this approach below:

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