
Subject: Re: 4 pi with alternate compression drivers
Posted by [Wayne Parham](#) on Sun, 23 Jan 2011 22:45:44 GMT
[View Forum Message](#) <> [Reply to Message](#)

Yes, acoustically the crossover is pretty close to a 4/4. The main thing we're looking for is a clean forward lobe with the center pretty much straight forward and vertical nulls approximately equally spaced above and below the speaker, outside the horn's vertical pattern at HF. More info below:
High-Fidelity Uniform-Directivity Loudspeakers

specifically about the crossover design. Check out the ones about baffle spacing, phase angles, etc. Also the one called "Crossover optimization for DI-matched two-way speakers", which describes the exact optimization process, even showing a video.

About the driver recess, I like doing it because I think it is attractive although there is no acoustic benefit or penalty either way. On the wood, I like to use MDF on boxes smaller than about 4-5 cubic feet unless they'll be transported a lot or used in humid environments. Larger boxes I prefer to be baltic birch.