Subject: Re: Request plans and Klipschorn question
Posted by Wayne Parham on Wed, 16 Feb 2011 19:25:37 GMT
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Well, that's true. You can delay the midhorn and tweeter to match the path length of the Klipschorn to get summing right, making a clean forward lobe that's where it's supposed to be. The midbass directivity would then be set by the walls, just the way you want it. Of course, lower bass is never determined by wall angle, that's a room mode thing, best mitigated with multiple bass sound sources. But the point is, with delay, I think you'd achieve parity.

One extra thing I'd probably do is to use a mild low-pass to reduce the bass bin output above 200Hz. You want some overlap to help reduce floor bounce, but you don't want energy through the basshorn at high enough frequency that it starts sounding throaty and ragged. There's a certain amount of acoustic low-pass from the folds, but it doesn't seem to attenuate the lower-midrange standing waves that line up inside. That's something I notice from Klipschorn bass bins that I think is somewhat easy to correct. Just low-pass them a little lower than the stock design requires. Then maybe you can have your cake and eat it too, good acoustic load and constant directivity.