Subject: Re: Two midbass horn layouts...
Posted by Wayne Parham on Wed, 01 Jul 2009 03:02:31 GMT
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There are a lot of ways to skin a cat. But as for me, I try to keep the sound sources above the Schroeder frequency spaced so they sum constructively through a fairly large vertical arc which means relatively tight vertical spacing. The crossover should be designed with the same goal, to provide a large forward lobe with widely spaced vertical nulls. Naturally, you want to have the same horizontal coverage from each sound source so directivity and spectral balance is uniform along the horizontal plane. I say naturally, but I guess that isn't a given. That's just one of my priorities.

Below the Schroeder frequency, the sound sources can be (read that should be) spread out a little more to smooth out the room modes. So I guess my vote would be to use a midrange that blended with your woofer in the upper modal region. Keep the woofer low-pass under the Schroeder frequency, but let the midrange run down as low as possible for good blending. You can't do that if power levels are high like for prosound, but in that case you probably wouldn't have room modes to contend with so the tradeoffs would be different. For home hifi and home theater, I think it's a good way to go.