
Subject: Re: Most of the discussion centers

Posted by [Wayne Parham](#) on Tue, 28 Jun 2005 14:44:22 GMT

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This discussion is whether the measured response of a single driver should be used for crossover calculations of an array. Earl answered that it should not, which I believe was probably a good response. I think Jim would have said the same thing. The geometry of the array is critical, because there are transition frequencies set by the positions of the drivers. At very low frequencies, where all drivers are within $1/4$ wavelength of each other, an array acts as a point source. At medium frequencies, each pair of drivers is within $1/4$ wavelength, but the ends are further. The array becomes directional at this point. And at high frequencies, each driver is further than $1/4$ wavelength, and complex comb filtering results in dense interference. Through each transition, the frequency response and directivity will be affected and the system will act differently in each of these frequency ranges. A single driver just has collapsing DI and that's it. Honestly, I think you, Jim and Earl are probably all on the same page here, but semantics and maybe lack of specifics cloud the discussion.
