
Subject: Question about dispersion in domes vs ribbons

Posted by [Don B](#) on Thu, 02 Nov 2006 00:29:05 GMT

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I've read the "whitepaper". It seems to suggest that the only appropriate tweeter is a ribbon or planar, unless a c-to-c distance of below 1.35 inch is available. The paper also states that a tweeter line needs to be a full meter in length to cover both sitting and standing. I can see that for a ribbon tweeter line since the dispersion of those is pretty much limited vertical dispersion. However, domes by their nature have a more spherical dispersion. I would not expect that, if one found a dome with a less than 1.35 inch c-to-c that they would suddenly develop a limited vertical dispersion. It would seem that since standing is often further away than the sitting position (people don't usually stand to listen in the space between the sitting and the speakers) that they domes would provide more of the overlapping spherical dispersion, and thus the line wouldn't need to be a full 40 inches long. Please advise where my thinking is faulty. Don

Subject: Don't know, but maybe....

Posted by [Marlboro](#) on Thu, 02 Nov 2006 12:28:36 GMT

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There is a squashing effect between the speakers, I think. The D'Appolito design with the tweeter between two mid woofers squeezes the dispersion of the tweeter between them. However, in the case of a set of domes in a long line very close together, I'm not sure what that would do. Surely the ones on the ends, and maybe the last two on the ends, would have a normal at least quarter spherical dispersion giving more vertical. But I don't know. Hopefully Jim or Bill F-M or someone here with more acoustics knowledge can reply. Marlboro

Subject: Re: Don't know, but maybe....

Posted by [Jim Griffin](#) on Thu, 02 Nov 2006 12:57:46 GMT

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Yes, an array of dome tweeters would have a more concentrated sound between the ends of the line. Thus listening beyond the extent of the line would sound noticeably different vs. between the ends. Perhaps not as much concentration as with ribbons but still you would know the difference.