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Subject: Re: Array types

Posted by [Jim Griffin](#) on Thu, 10 Jun 2004 19:05:43 GMT

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Well Bill answered some of your questions but let me weigh in and give you another viewpoint. My viewpoint comes from application of line arrays for home usage (vs. the usual pro sound use). First of all, let me say that Bessel arrays are not a very smart idea for most applications. How many current home or pro sound applications have seen that utilize Bessel arrays? Very, very few. Bessel array ideas are like urban myths--they come around every few months but quickly fade as they are shown to be plenty dumb ideas. I doubt that Philips's Bessel array patent has paid them much money over the years. Bessel arrays operate in the far field (listening position would be typically 20 to 30 times their height away from them). Their efficiency is typically little more than a single driver source within the array so why do it? Don Keele published an excellent paper on "Effective Performance of Bessel Arrays" in the Journal of Audio Engineering Society in October 1990. He studied 5, 7 and 9 source Bessel arrays. His conclusion was that only the 5 source Bessel array made any sense at all and even that array has shortcomings versus a 5 element linear array. For my applications I really like near field line arrays (NFLA)--especially for home usage. See my white paper on NFLA design considerations for more details. NFLAs provide effortless sound which has a huge image field plus nearly constant sound level within the room. NFLAs come the nearest to having the impact of a live sound venue that I have experienced. Let us hear about your line array application and perhaps a more detailed answer can help you reach a solution. Jim

Near Field Line Array White Paper