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Subject: Re: ESG1 Can I use it for an array?

Posted by [Jim Griffin](#) on Tue, 27 Jun 2006 19:28:47 GMT

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The ESG1 is the Aurum Cantus G1. It is an excellent ribbon tweeter. While I have never used the G1 in a design, I have used the G2, G2si, G3 and G3i-130 variants in various designs. My Needles array used 16 Tang Band W3-871S and a single A-C G3 ribbon per side. As with any line array of woofers and a point source single tweeter, you have to design the crossover to optimize the sound at the listening distance. This is because the array will operate in the near field and will have 3 dB per doubling of the distance from the array sound fall off. Conversely, the single tweeter will have sound fall off of 6 dB per doubling of the distance. For the Needles I used a slight power taper of the small midrange woofers to balance the sound with the ribbon. Now the G3 (as well as the G1) has limited vertical sound dispersion so the power tapering of the array helped to anchor the sound for a sitting listening position. The bottom line is that the Needles came out with excellent sound for its design. I suspect that your G1 and woofers design has the potential to be successful. Now a near field line array with full length woofers and tweeters will make line array full room any position magic better than the Needles, the cost and size of the array is certainly larger.

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