Subject: Re: Driver Center to Center Spacing for Line Arrays
Posted by Jim Griffin on Sat, 07 Aug 2004 11:31:09 GMT
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Josh,Excellent insight on vertical axis directivity. The JBL reference that I mentioned in my message shows how directivity suffers as spacing goes beyond one wavelength. In reality the reduction in sensitivity beyond one wavelength spacing is as bad or worst than the comb lines. Essentially, the wavefront starts to breakdown and becomes incoherent with resulant lobes or comb line responses off axis. While you still have an on-axis peak beyond one wavelength spacing, its level will be lower and you'll observe more power dispersed into these sidelobes and other off axis areas. Overall not a good situation. As you suggest with the beaming of the drivers beyond one wavelength spacing you'll narrow the sweet spot. At some point the sweet spot will become so diffuse that I suspect that you'll have a poor performing speaker. Jim