Subject: Re: My results don't agree here.
Posted by Jim Griffin on Fri, 23 Jul 2004 02:29:54 GMT
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Bill,Across the lower part of their frequency band with the Pt2's (and several other similar size planar and ribbon tweeters) you will have array gain. Near 2000 Hz (the lower end of the Pt2 freqeuncy band) you will have significant vertical dispersion or sound radiation (out to 30-40 degrees or even more) so you will have sound field overlap if you array a line of these drivers at 2000 hz. But as you can see from the vertical dispersion frequency response of a single Pt2, you will see that their vertical dispersion decreases as you go to higher freqeuncies. In some cases the dispersion from the drivers overlaps less than 5 degrees close to 20000 Hz. This means that in such an array their sound fields will have little (if any) array gain in the upper octave (10k to 20k Hz area). Bottom line is that you should not count on achieving all of that array gain across their entire operating band. With these drivers in an array and because of the reduced vertical sound field overlap vs. frequency, you will have minimal issues with comb lining (little sound field overlap so comb lines don't form as frequency increases). What is important in such an array is the percentage of active length of these elements in the array. This is the amount of active radiating length to flange and separation distance. Various researchers have recommended that the active ratio percent be near 80% for best results. This is all explained in my near field line array white paper by the way. Jim