Subject: anyone tried equidistant spacing?
Posted by topogon on Sun, 04 Mar 2007 11:10:13 GMT
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I am planning to make a short array with 8 of 5" woofers each side and 10 tweeters. I will listen in near field only at 3 metres distance. I can only separate the tweeters by 2" which means I will have combing effects from below 10KHz even. My thought is to space the tweeters equidistantly - probably packed tightly together at the middle and expand to maybe 3" apart at the ends of the line. That way I would get earlier nodes but it should blur the frequency where I get nodes making them (hopefully) less noticable.Q1. Has anyone tried this before? Any thoughts whether theoretical or practical?My second option is to scrap the tweeter array and go for a needle design with one tweeter at ear height. (The differing -3dB VRS -6dB distance response won't be a problem as I will only lever use them at one fixed distance.)Q2. At what frequency do the significant spacial clues stop?Will the single tweeter be noticable if I cross over quite high - say over 3KHz? Finally I have also thought of a curved array to eliminate any phase differences. I would just use a baffle with a concave curvature of 3m radius. However I am a bit concerned about focusing the drivers all down to one point and the affect this may have on frequency response as the directivity of the drivers narrows at higher frequencies. (Applies to both woofer and tweeters here)Q3. Any opinions, experiences and, especially, numbers/formulas they can suggest here please?Thanks in advance - John CorneilleMelbourne AustraliaPS I have read the white paper on line arrays and it doesn't cover these items.