Subject: Re: Perfect line array
Posted by Steven Homrighausen on Wed, 07 Jun 2006 15:08:06 GMT
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You have my sincere apology for not giving credit for the wonderful white paper that you've given to the DIY community!!!So… which is better a true line array with PT2s, or a quasi-array with two Fountek ribbons per array (I could add more later…)? You verified my understanding about using dome drivers – they will benefit with increased sensitivity (directivity), but only at or below a wavelength c-t-c distance. In the case of drivers with 1.5" c-t-c that would be just over 9kHz – the tweeter line would fall off above that frequency. This drop caused by comb effects, if I understand correctly.The issue with comb effects would become an issue at a lower frequency with larger c-t-c spacing. Is it possible to predict the roll-off of the upper end based on number of drivers, c-t-c spacing, line length, etc? Is it best to just build it and measure?I've seen different arrays that use multiple large flange dome tweeters spaced accordingly (4.5" for example). If you have 12 of these in an array, you'd have to mitigate the roll-off starting at around 3kHz.. One example is at zalytron.com their Axon 812 array has eight 6.5" drivers and 12 tweeters spaced 4.5" apart (there are different configurations on that site as well). I've been trying to understand how this system could be 98dB @ 2.83v when a single tweeter is only 90dB.