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Subject: Re: Help with Potential Line Array Project  
Posted by [Marlboro](#) on Fri, 11 Sep 2009 23:56:32 GMT  
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So.... you are planning to use a single b29 tweeter in each array, combined with the mid ranges.

OK.... all this is MY opinion.

I would caution using a 6 db/octave crossover at 8Khz. Your mid ranges will run out of room before they start screeching or simply drop out at 16Khz which is one octave above, and 6 db down won't cut them back enough for that. You need at least a Rane AC23 24 db/oct or behringer where you can dial up the crossover to 72 or 84 db/oct, in my opinion.

Comb filter distortion won't start until 3400hz on the mid ranges at that c-to-c, so there is no reason why you can't drop your tweeter down to 3400. You will still be covering the critical 120-3000 range with just one speaker, and giving your midranges better headroom, but i still don't like the 1st order cross on them.

The single tweeter use won't give you a problem with comb filter distortion, and if you use an electronic crossover and your tweeter amp has a volume control, you can just dial up its output. But without running the numbers on the 12 mids I suspect that their combination SPL will be in the neighborhood of 104-108, way way way above the 94 db sensitivity of the tweeter, so you will be forced to either put the mids down(not a good idea) or ramp the tweeter up(an even worse idea).

But I'm not sure that I would go so cheap on the tweeter if I'm not going for a line array for the tweeter line. To get the sensitivity you need you would need to go with a horn tweeter, but to get a horn decent enough for this application you would expect to pay around \$400 each, and due to the air in the throat its hard to get their FR as linear as your mid ranges even if you can get the sensitivity up to 104-108.

Were you planning on separate enclosures for each of the midranged or ganging them all on one big box?

Is any of this right?

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