Subject: Need help with array design
Posted by David Yost on Mon, 02 Jan 2006 18:11:14 GMT
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Hello All:I have aquired some ribbon drivers and a quantity of 6.5" mid/bass units and need help designing a set of 3 arrays for my Trinaural set-up. For those of you unfamiliar with the Trinaural, please see:http://www.ampzilla2000.com/trinaural.htmlWhat I have are a total of 6 30" Gold Ribbon Concepts drivers, which are similar to the BGs in that they are push-pull planar magnetics, supposed to be good from about 300 to 30kHz according to their designer. Along with these came 16 6.5" poly units that appear to be Audax and spec at avg. res of 38 Hz with avg Qt of .45.I want to use the ribbons monopole to keep them near the walls of my smallish room--I don't like to feel crowded by loudspeakers, especially large ones. Also, I would like to use sealed woofer boxes for several reasons, not the least of which is that I intend to eq the bass response a'la Roger Russell's McIntosh designs. BTW, I usually listen at moderate volume levels to Jazz and Classical.So here are my thoughts...please give me some feedback before the sawdust flies....Center speaker is to be 24" wide and 7' tall and about 8" deep with 2 of the ribbons centered vertically one above the other, the ends of which would be aprox 1.5' away from ceiling and floor. This array is to be flanked by 4 of the midwoofers on each side spaced on 24" centers and tucked as close to the 5.5" wide ribbon frames as possible. This would provide the horizontal symmetry I want for the center channel.The L and R side speakers would be the same 24" wide and 7' tall, but would only use a total of 4 each of the mid/woofs to the outside of the ribbons, again spaced on 24" centers.Listening distance would be 11 to 12 feet from the arrays and I forsee using some typr of digital crossover/EQ. Assuming a crossover in the 300-400Hx range at 24-48dB/octave slopes, would the woofer spacing be close enough to avoid audible combing effects at these frequencies? Would I have the "Blooming" problem so oftened mentioned by line array users? Any other problems you see with this design? All opinions and comments are welcome.Many thanks and hope that all have a Happy New Year,David