Subject: Re: I went back to the "right x-over" and lost something
Posted by Wayne Parham on Sun, 10 Apr 2005 14:31:21 GMT
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Hard to say what's going on without being there. You have a system that is very similar to a Pro

like these, the midwoofer is run as a wide range driver, through the vocal range and to a point where DI is closely matched to that of the horn. You've got about an octave wide range of values that will work well, basically from about 800Hz to 1.6kHz. I personally like to have the 200-2kHz range covered by a single driver, so that's one reason I like the higher 1.6kHz point. There are a few other reasons too. Compression drivers aren't driven hard and the summing works out very nicely when baffle mounted. Many companies make a 1.6kHz crossover, so you can source parts easily too. Everything just comes together nicely.But 1.2kHz is fine too. It's in the DI matching range and still above the vocal fundamentals. In fact, it's there's only four musical notes difference between 1.2kHz and 1.6kHz. If summing is right, I would expect them to act the same for the most part. Should work out very nicely. But you would probably need to get out the calculator or the scope to see if the summing was good in the crossover range. You might find a notch somewhere within an octave either side of the crossover point if things aren't right. The same could be true of your 1.6kHz crossover or any other. For crossover between 1kHz and 2kHz, the wavelengths involved in the overlap region are on the order of about 6" to 12". So you'll find that summing is pretty nice in this range with drivers and horns baffle mounted, but if you get too far off, you can get into a situation where there is destructive cancellation.