Subject: Oh, made an error
Posted by Adrian Mack on Mon, 12 Jan 2004 06:21:21 GMT
View Forum Message <> Reply to Message

Hmmm, I guess the 3rd order network is 135deg at xover freq, so adjacent 3rd order networks would be 270deg apart at xover point. Kinda ruins my whole post, haha. I'll just rewrite it correctly this time. Take adjacent drivers, both 3rd order networks on each and 1.6KHz xover point. The crossovers are 270deg apart at xover point, the next time complete cancellation occurs is at 540deg or 3/2 wave. If we move the tweeter 6.35" forward, which is 270deg of 1.6KHz, then combine that with the 270deg phase shift of the adjacent 3rd order networks at the xover point, then that would make total phase 540deg at the xover point and complete cancellation occurs. Is this right? I should make the correction too for my last paragraph in my last post. Have the tweeters acoustic center 6.35" forward of the woofers acoustic center would cause a 270deg phase shift, combined with 270deg of shift from adjacent 3rd order networks makes it 540deg at the xover point so cancallation happens. So even onaxis you could get complete cancellation then if you do it just right (or wrong as its a bad thing). But isn't the onaxis and nullaxis positions shifted if the acoustic centers arn't aligned? Or is it only the nullaxis that is shifted? That cancellation onaxis I described above would still occur though and on axis, even if the axis is shifted? Thanks!Adrian