
Subject: Crossover update and a monster recording
Posted by [Bill Epstein](#) on Sun, 29 Jun 2008 23:30:20 GMT
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Waynes new crossover board build took a backseat to my infatuation with the ART active but I was almost to the point of bagging it and going back to passive. However, I found an opinion on the Curcio site this A.M. about not using passive attenuators to drive active crossovers due to capacitance issues. I have no idea whether or not that was the case with mine but when I replaced the passive I built with the ARC LS-1 that had been on the bench, things improved markedly. I then got serious about fiddling with the attenuation controls and found a setting that totally eliminates the shout or screech or whatever (best guess is just a CH more than 14dB) and moved one speaker back 1/4". Spkrman will appreciate that the treble is now far 'easier' and the overall sound quite natural. I would dare to compare it with the XLHs driven by the KR 1610. This is good. No, this is great! That LS-1 with a few mods is killer. The image is now far less diffuse, the lost inner detail is mostly back and the dynamics are first rate. My main complaint, shower stall ambience, is also gone. I will build the new boards and implement them very soon but this \$95 box is pretty damned good. You want to take your stereos temperature? Play this: Ondine 1094-5 SACD

Subject: Active crossover settings
Posted by [Wayne Parham](#) on Mon, 30 Jun 2008 00:35:18 GMT
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Sounds good, Bill, keep us posted. I know how the passive crossover sounds, and I think you'll be impressed when you're done with it. But active crossovers have definite advantages too. The trick is dialing it in. The passive has already been optimized with Spice and WTPro. So if you implement an exact copy of it in an active crossover, the sound will be smooooooth. While you're trying different setups, try these settings: 3rd order Butterworth 1.3kHz low-pass for the woofer, 3rd order Butterworth 1.6kHz high-pass for the tweeter with 6dB/octave augmentation starting at 4kHz. Those settings should make your active crossover give very close to the same signals as the passive crossover does. You'll have the passive crossover's excellent on-axis and off-axis response, with the added benefits of reduced bandwidth on each amp from going active.

Subject: Re: 95 bucks doesn't buy that much flexibility
Posted by [Bill Epstein](#) on Mon, 30 Jun 2008 01:32:07 GMT
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It just has the high pass and it's a 4th order L-W. The darn 16ohm woofer means huge coils and the parts for the board run to \$200 so it'll be a few weeks until I can order them. Looking forward to it. ***The little dials on the ART tell me I'm near 14dB attenuation but I can't be sure. 14dB

wasn't quite right with the old passive crossover. What can be done to tweak it a bit w/o going to the full next step down? 15 and 30 ohms with a .22cap, perhaps? Something else?***

Subject: Re: 95 bucks doesn't buy that much flexibility
Posted by [Wayne Parham](#) on Mon, 30 Jun 2008 01:48:33 GMT
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Since you're bi-amping, can't you just reduce the gain on the tweeter amp instead of padding? Basically just turn the tweeter amp down a bit?

Subject: Re: Crossover update and a monster recording
Posted by [Matts](#) on Mon, 30 Jun 2008 02:20:44 GMT
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glad you've got some good tunes back again! sounds like you're on track for even better.... I've played that St Saens Organ Symphony in my community orchestra coupla years ago. The end of it is like playing rock...it really takes off. We had a great organist and played in a church that's noted for its organ. What a great piece! I'll bet it sounds fantastic in a smaller room with the speakers set up nice....

Subject: Re: 95 bucks doesn't buy that much flexibility
Posted by [Bill Epstein](#) on Mon, 30 Jun 2008 04:12:46 GMT
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Sure. Tweaking the attenuation I was referring to the passive Pi crossover.

Subject: Re: 95 bucks doesn't buy that much flexibility
Posted by [Wayne Parham](#) on Mon, 30 Jun 2008 05:14:32 GMT
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Oh, gotcha. You're wondering what values to use to get say 13dB or something like that, right? I only calculated values at 2dB increments. If you want a smidge more, I'd interpolate the values of

Subject: Re: Crossover update and a monster recording
Posted by [Bill Epstein](#) on Tue, 01 Jul 2008 00:22:13 GMT
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The St. Saens is great, I have about 5 versions, all on vinyl except this one. What's astounding about this one is the new-to-me Barber Toccata Festiva and Poulenc Concerto in G Minor. As good as when I first discovered Arvo Part.

Subject: Re: 95 bucks doesn't buy that much flexibility
Posted by [spkrman57](#) on Wed, 02 Jul 2008 15:20:20 GMT
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Bill, Just for reference, I use 15 ohm and 33 ohm (.33 mfd cap) as those were easy to get from PE.Ron
