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Subject: What about Linkwitz-Riley?

Posted by [Bill Epstein](#) on Wed, 10 Jan 2007 02:25:58 GMT

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Just to see I ordered the cute l'il coils 18ga. to make a 4th order Linkwitz-Riley crossover for the Fountek ribbons @4000Hz. What should I expect from the much steeper slope than the usual Butterworth?

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Subject: Re: What about Linkwitz-Riley?

Posted by [Wayne Parham](#) on Wed, 10 Jan 2007 03:41:41 GMT

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With higher-order crossovers, the phase shift is greater and overlap is less. As for the difference between Butterworth and Linkwitz-Riley, see the curves below:

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Subject: Re: What about Linkwitz-Riley?

Posted by [dB](#) on Sat, 13 Jan 2007 00:19:11 GMT

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- I'll use a first order at 3500. BILL- I ordered the cute l'il coils 18ga. to make a 4th order Linkwitz-Riley crossover. BILLHi bill, Why did you change so much (from) your ideal xover? From my "hi-tech" learning with Wayne, 4th may not work. This is because what are you going to do with so many components? Are you measuring all of them with multimeters and simulating with Spice. From what I know (and I don't know much) that doesn't work or is much more difficult. How much sound are you losing in the process after all? Check well with Waynes 1 and 2 order filters and how they work on his papers 101 et al. on his (this) website. I would like to know your opinion after all anyway. If you chose and design with the right components, a 2nd order may very well behave as a 4th order on the sound-output-side decay curve. Your initial idea of a 1st order may very well be more pure than none. dB

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