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Subject: Re: Pre Compensation Load on X-OVERS and L-Pads

Posted by [dB](#) on Tue, 10 Jan 2006 23:04:16 GMT

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Dear Mr. (Wayne) Parham, Hi. It is a pleasure to be able to ask you a question and having you 'in person' to answer to them. First I am learning how to work with Spice software and what a difference from 20 years ago with/when my only book (that) was >PHILIPS Building Hi-Fi Speaker Systems. Thanks to all of you guys from Berkeley. I am making such great improvements that I feel pity that I am only an unemployed architect and not a technologist engineer to find a job in this area. It seems that now everybody has a position open for engineers. At least I have time for what I like and what I can do... Second I wanted to take in consideration that how more times I read your paper 'Speaker motors and passive crossover filters' there is something that doesn't add up. Since my first question that I couldn't find an answer.

1. On page 33 you show: R1 3 1 5.5 R12 1 0 3.7 If the speaker is 1 - 0 your R1 should be 3 - 0 (not 3 - 1) and R12 3 - 1 and not 1 - 0. (Or Spice is right and the drawing is wrong?)

2. Again on page 35 you show: L2 5 6 0.6mH C2 5 3 16uF R1 3 1 5.5 R12 1 0 3.7 C1 3 1 5uF If the speaker is 1 - 0, R1 => 3 - 0, R12 => should be 3 - 1 (from C2-1.st order?) and not 1 - 0. (Or the drawing is not right...)

What is confusing me is that the Pre-compensation can be connected to 1 (Motor-Speaker) or to 3 (C2 from 1.st order x-over). Again on page 37 and page 52: series/parallel compensation R1 3 1 25 R12 1 0 16 C1 3 1 0.47uF If you noticed R1 IS OK, C1 IS OK AND R2 IS WRONG AGAIN. Should it be R2 1 - 0 ? Or R2 3 - 0 ? With L1 from 2nd order x-over. All connections from Spice seem to be right and the x-overs drawings wrong. If L1 is 1 - 0 (page 51) then, when you introduce a series parallel compensation on the circuit (from page 52) 1 becomes, then, 3 from C2 (C2 => 5 - 3), C1 => 3 - 1 AND R1 => 3 - 1 (Speaker 1 - 0). R2 is then 1 - 0 (parallel with the speaker 1 - 0). But the drawing is not showing that. What it's showing is R2 (from) 3 -(to) 0 (in series with C2 (of 2nd order x-over) . Thanks again Mr. Wayne and thank you for your time.

Best Regards  
From da Bastos

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