
Subject: A question about speaker impedance ratings
Posted by [wunhuanglo](#) on Thu, 10 Jul 2003 05:04:46 GMT

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I suppose this isn't a very smart question, but I'm a little uncertain and maybe somebody could smarten me up a bit. If I use a parallel crossover for an 8 ohm woofer to an 8 ohm tweeter at 1KHz, first order Butterworth, the cap is 20 microfarads and the inductor 1.27 mH, each of which conveniently have impedances of 8 ohms. Consequently, I get a "series added" impedance for the system of 8 ohms. But it seems that if I want to use another topology or crossover point, I'm going to have a hard time summing all impedances to 8 ohms, especially if my goals include suppressing resonances, padding down one driver to level match the other, compensating for impedance peaks with a Zobel, etc... So I guess what I'm wondering is, overall, is it a happy coincidence that most crossover/driver system impedances sum to approximately 8 ohms? Or are speaker impedance ratings of "8 ohm" kind of wildly optimistic?
