Subject: 16 ohm tweeter crossover values
Posted by Wayne Parham on Tue, 11 Nov 2003 17:40:32 GMT
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We've discussed this issue several times before, and I thought maybe there was a specific set of values for a 16 ohm compression driver in the archives. Most 8 ohm tweeters have Re ~ 6 ohms and Le ~ 0.1mH to 0.2mH. Most 16 ohm tweeters are about double this, with Re ~ 12 ohms and Le ~0.3mH or so. I thought maybe there was a post in the archives that described a crossover optimized for a sixteen ohm driver, but I couldn't find one that showed specific component values.

I found a few posts that describe the process, but none that had specific values. So I made a few quick swipes at it in Spice, and from what I found, I think I'd probably use the same values of L1, C2 and C3, and just change R1, R2 and C1. That's nice, because it only involves changing the tweeter cable assembly. So try R1=50, R2=16 and C1=0.33uF. This looks great for tweeters having Re=12 and Le=0.3mH, which is probably just about right for most 16 ohm, 1" exit compression drivers.

Here are three posts that describe the process:
Spice distribution
16 ohm L-pad information
16 ohm md2001