Subject: Re: crossover design... help....
Posted by Wayne Parham on Mon, 15 Apr 2002 20:00:08 GMT
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>> thank you very much for your reply... now, how do i know for which>> frequency i should compensate? i must look at the response graph,>> don`t i?That's right, yes.>> if i place a l-pad to pad down the driver, the high octaves are>> padded as well?That's right too.>> which data of the spec sheet i need to model the drivers in spice?Re and Le, and you'll need to determine the acoustic reactivity of the horn/diaphragm system.>> i was looking at your designs... they are excellent but, will they>> work with my speakers?Use the crossover version that matches the sensitivity of your HF subsystem to the LF subsystem. As an example, if your tweeter is 12dB louder than the woofer then use the 1K6a012dB version. Be sure to find the sensitivity of the compression device on the horn - not measured at 1mW on a waveguide - when comparing sensititity to the woofer. Calculate the Zobel woofer damper using the formula shown at the bottom of the schematic.That's all you need to do. It will sound great.>> it is too difficult wounding a coil myself? i have experience>> wounding transformers... is this much more difficult? do you know>> any program that can help me in this task, such as wire gauge,>> core diameter, number of turns, etc.?Here's a formula that will calculate inductance of a air core coil:Single layer depth - Formula is good to 1% accuracy if wires are wound tightly and single layer insulation magnetic wire is used:uH = NR2/(6R + 9X)Multiple layers of windings on form - Formula provides 30% accuracy:uH = 0.8NR2/(6R + 9X + 10D)Where:uH is inductance in microhenriesR is radius of wire form (core center in the case of multiple layer form)N is number of turns or rotations in windingX is length of overall wire formD is depth (thickness) of layers of windings on core