Subject: Power Handling of individual components
Posted by Adrian Mack on Thu, 22 May 2003 12:21:30 GMT
View Forum Message <> Reply to Message

Hey Wayne.Sorry for asking all these questions, I bet your sick of me by now :PI have carefully read the power handling section of the speaker crossover document for information on selecting correctly rated caps/resistors/inductors for their power handling. I notice what you've done is used a swept sine wave of 50VRMS (~312Wrms) to take the measurements (312W is HUGE for midrange/tweeter... am wondering why you've used such a high value?). Anyway, my question is, how do I do the sine wave sweep in SPICE so I can analyise the voltage going accross particular components? Also, how do you select which component (EG: C4, R2, etc) that you wish to analysize? (in the diagrams, v6 is used for a number of components). In the example given in the speaker crossover document, it requires 100W or so resistors... a very high value. It does say though that resistors 25 or 50% of the wattage can be used for the tweeter part (not woofer though? :(not much point using smaller ones for the tweeter then if thats so, because you'd need to get 100W ones for the rest of the circuit anyway). Parts Express has resistors with maximum power of 20W, but dont come in many values. They are wirewound type, this is OK?What exactly

different circuits?BTW: For the other 8db attenuation for the midrange (4ohm resistor in series then parallel with midrange), how can I determine what components for maximum power handling I would need. Do I need to make a SPICE model of them? Again, sorry for all the questions. Its all in the spirit of DIY though :D Thanks!Adrian