
Subject: SPICE and Piezo Questions

Posted by [JohnB](#) on Sat, 28 Sep 2002 11:20:09 GMT

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Hello:I've been interested in modelling the Pi designs that use the piezo tweeters (using AIM-Spice), and have a couple or so questions:Using what data I can find regarding the CTS piezo, the model is: "...like a lossy capacitor to the amplifier...". The circuit is basically a capacitor in series with a resistor, with the resistor representing the dissipation loss. The question is - would the resistance actually take part in an AC analysis model? If so, does anybody have any idea of an appropriate value for this resistance given 2.83V across the terminals?How are the V_{in} and source impedance values chosen in the models provided in the Pi Crossover Spice circuits? Am I wrong in thinking that the series impedance would actually be quite low, and an input voltage of 2.83V is the reference standard?A question regarding the mechanical Q of the 2 Pi Tower speaker, I calculate an F_r of 45 and a Q of around 7. Is that correct?Thanks for any info.John B.