Subject: attenuating 1197 piezo
Posted by mhammill on Thu, 18 Apr 2002 15:11:07 GMT
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I have a pair of 10" woofers that are only 89db eff and would like to pair them up with some motorola 1197 5x15 horns that go down to about 700hz but I'm not sure how to wire the 20ohm resistor and the exact layout or value for the cap to match the efficientcy and still use the natural lowend rolloff of the horns.I'm guessing I need to attenuate about 3-6db so I will have to try various values.Can anyone draw me a skeet so I'm sure I get it right? I've never padded down a piezo before.By the way after testing in my livingroom I was suprized how linear the responce of this driver and horn was from 700-18k! Can't beat it for the price.I have some 2ft3 goodwill epi 120 boxes with good tweeters but rotten woofers that I got for $8 that will be pefect for this project.Thank's for you helpMike H.

Subject: Attenuating piezo tweeters
Posted by Wayne Parham on Thu, 18 Apr 2002 16:19:31 GMT
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Put a capacitor in series with a piezo tweeter to attenuate it. That's all there is to it. As far as the value, I'm not familiar with the 1197, so I can't say for sure. But the KSN 1038 is attenuated a little more than 6dB using a 0.1uF capacitor.Here's a chart:1.0uF -1dB0.47uF -2dB0.33uF -3dB0.22uF -4dB0.1uF -7dBYour tweeter may have different electro-mechanical parameters, and would need different values of capacitors for the same attenuation. You might want to check and find out.

Subject: Re: Attenuating piezo tweetersSORRY IT'S A KSN1188
Posted by mhammill on Thu, 18 Apr 2002 20:37:35 GMT
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I got my drivers mixed up it's a KSN1188 motorola driver. Does than help? And I thought I was suppose to wire a 20 ohm resistor parallel to the driver is that right?Mike H.

Subject: Piezo implementations
Posted by Wayne Parham on Fri, 19 Apr 2002 00:41:50 GMT
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If you put a 20 ohm resistor across a piezoeletric tweeter, then the 20 ohm resistor becomes the dominant portion of the load impedance. The impedance of the tweeter is so high (except at the highest frequencies) that the load impedance is 20 ohms, and the impedance of the tweeter becomes almost insignificant. You could then use a standard crossover circuit that expected a 20 ohm resistive load. Check the collection of posts below for more information about implementing piezoelectric tweeters.

Piezo implementation discussions