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Subject: High-Pass Filter

Posted by [Adveser](#) on Fri, 18 Feb 2011 15:07:25 GMT

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Alright, so I noticed something playing with a band.

The speaker excursion of my all-in-one PA system is very high. The 5-band EQ on the thing only goes down to 250hz and I suspect that frequencies below that are responsible. I have a bass-heavy voice, even when singing well above middle-C and a heavy attack and am concerned it is going to blow the amp or the speaker. The clip meter comes on at the height of the attack and not really at any other time. I am pretty sure it wouldn't be clipping at all if I could tame the low-end and then I can get the full wattage of the system.

Does anyone know the values of the capacitor and the resistor I would need to make a 200hz high-pass filter off the top of their head that I could wire directly into the microphone's shell?

A windscreen is simply not going to be good enough.

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Subject: Re: High-Pass Filter

Posted by [Wayne Parham](#) on Fri, 18 Feb 2011 19:49:41 GMT

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If you want just a simple RC filter (first-order), make the shunt resistance equal to the source resistance and set capacitive reactance of the series capacitor equal to that at the frequency

reactance ( $X_c$ ) is in ohms and ( $f$ ) is frequency in Hertz. Capacitance ( $C$ ) is in Farads, so it will be very small. Remember that  $\mu F$  is  $\times 10^{-6}$  and  $pF$  is  $\times 10^{-12}$ .

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Subject: Re: High-Pass Filter

Posted by [Adveser](#) on Sat, 19 Feb 2011 02:07:19 GMT

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Thanks for reminding me of the formulas. This is a good opportunity to exercise some engineering notation.

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