Subject: making freq. response graph
Posted by Chris R on Mon, 30 Jun 2003 22:58:39 GMT
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Hi Wayne, If I have a 'scope and a swept audio generator, what elseis required to produce a frequency respose graph? Specifically,what's required to plot the response of an active crossover?Would I need some sort of a log amp to measure in dB? Doesthe audio generator have to sweep at a particular rate? Isthere a PC program to do the same thing, maybe easier? Theactive crossover I made a while ago seems to work really welland I'd like to develop it more (variable freq, HF comp, etc).Thx, Chris

Subject: Re: making freq. response graph
Posted by Wayne Parham on Tue, 01 Jul 2003 05:12:18 GMT
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If you have a signal generator and scope, simply use a series of frequency points and measure the input and output voltages. This will allow you to plot a graph, which you can calibrate in linear voltage or in decibels. You'll probably want to scale with decibels, so convert voltage to decibels using the formula dB = 20log(Vout/Vin).

Subject: Re: making freq. response graph
Posted by Chris R on Tue, 01 Jul 2003 20:26:07 GMT
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Sorry, I wasn't clear. I want to plot to display on thescope in real time. I guess I'd have to get the horizontalinput tied to the freq. sweep signal. That I don't have.Chris

Subject: Re: making freq. response graph
Posted by Wayne Parham on Tue, 01 Jul 2003 20:37:58 GMT
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You're right that if you want to have an automatic process then you'll need a mechanism that synchronizes the generator sweep with the measurement device. You could have your computer D/A generate the sweep and read it with its A/D. Then synchronization would be a matter of timing logic in your code. Alternately, if your signal generator has some sort of synchronization

signal, perhaps you could read it programmatically. Either way, you'll need to have a mechanism in place.