Subject: Phase of active and passive filters
Posted by Adrian Mack on Thu, 17 Apr 2003 09:20:25 GMT
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Hey everyone.Has anyone got the formulas for calculating phase of 1st-4th order active/passive low/high pass filters? (including peaking 2nd order HP filters used for bassboost/EQ circuits). Also I need formulas for phase of parametric EQ circuits. This is so I can calculate the group delay from it and put it in a spreadsheet I have been making which models various alignments, etc. If anyone can supply these, it would be greatly appreciated!Thanks!Adrian

Subject: Re: Phase of active and passive filters
Posted by Wayne Parham on Thu, 17 Apr 2003 12:39:13 GMT
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The formula for finding phase is in the PiAlign document and also in the handout for the "Electronics 101" seminar. You might also want to do a search here for "phase," because there is a lot of information stored in the archives of this forum.

Subject: Re: Phase of active and passive filters
Posted by Adrian Mack on Sat, 19 Apr 2003 02:04:11 GMT
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Thanks for the tip. I've ended up finding everything I need now. One other thing I need..... is the amount of increase/decrease in port air speeds that the active filters do. Any ideas/formulas on this?Thanks!Adrian

Subject: Re: Phase of active and passive filters
Posted by Wayne Parham on Sat, 19 Apr 2003 03:40:36 GMT
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A port in a bass-reflex loudspeaker cabinet forms a Helmholtz resonator. It acts very much like an LC tank circuit. Since the woofer is also a resonator and its frequency is close, the two systems are tightly coupled.