Subject: rc network with active crossover?
Posted by jlharden on Mon, 07 Jan 2002 21:39:56 GMT
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Hi Wayne! I've gotten information and perhaps misinformation on this topic. What's the final verdict, is it possible or advisable to use an rc network between the amplifier and hf driver when going active? And is top octave compensation even possible when active crossover is used in conjunction with these 500 cycle round horns? Still haven't managed much info, but have almost started a silly argument nonetheless!....Thanks, Jerrod

Subject: Re: rc network with active crossover?
Posted by Wayne Parham on Mon, 07 Jan 2002 22:00:25 GMT
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See the earlier posts about Sallen-Key

Subject: compensation network can still be used
Posted by Sam P. on Tue, 08 Jan 2002 00:08:42 GMT
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between the amp and driver, even with active. My HF drivers are at least 6, maybe 10 dB hotter than the LF system in use. When I go active, if I decide to implement top octave EQ, one possibility is use normal 2 way active xover, and use resistive padding and passive EQ on the HF driver as Wayne does. Or use more op amps. Passive EQ can be tweaked by ear easier. Sam

Subject: Re: rc network with active crossover?
Posted by Mike Bates on Tue, 08 Jan 2002 03:31:24 GMT
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Sorry to butt in here again -- I've been doing passive eq (compensation) with an active crossover or even better in my opinion a passive line level crossover for a while now. It really works great. Nothing different in designing one. You just leave out the passive crossover and keep the eq and zobel. If your using a big ss or tube amp to drive the drivers you probably should put a cap in for safety (crossover and amp turn on thumps and nasty old DC). My (almost all) drivers get loud with less than a watt (you don't have to pad them down as far when you biamp) so I (carefully) leave the cap out.Mike BatesCoolJazz

Subject: Re: rc network with active crossover?
Posted by jlharden on Tue, 08 Jan 2002 09:17:08 GMT
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Hi Mike!Thanks for butting in here! I'm very interested your opinion because you have direct experience with the SB horns. Have you ever used (or heard) a JBL 2426 in conjunction with the SB Baby Grand? I'm wondering what I could expect with these and what a far more expensive part as the TAD 2001 would offer as compared to the JBL 1" driver. Thanks again! Jerrod

Subject: Re: rc network with active crossover?
Posted by jlharden on Tue, 08 Jan 2002 09:21:05 GMT
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Good deal. I will read up on the Sallen-Key circuits. Thanks for the info! Jerrod

Subject: Re: rc network with active crossover?
Posted by Mike Bates on Tue, 08 Jan 2002 12:54:06 GMT
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Hello, no I have no experiance with that driver. The information at the JBL site (graphs) indicates a much higher resonance at around 700 cycles were the 2001 is down around 300 cycles. I believe the JBL will only go to around 800 cycles and start to roll off. The 2001 will go to 600 in the 500 cycle horns. On the top end with lots of padding they'll probably go to 16-17k. 20k is possible but it looks like the response drops too fast to expect good results way up there. Overall they will probably sound great in the horns, but compared to the TAD they will be limited in both ends of the spectrum. There is a fellow, Paul Butterfield, selling a reconditioned pair of the 2001's for around $600.00. He can be contacted at paulbutterfield@mindspring.com Hope this helped. Mike BatesCoolJazz

Subject: Sierra Brooks special 500Hz horns for TAD 2001s.
Posted by steve jones on Sat, 12 Jan 2002 23:48:30 GMT
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Hi Mike,Talking to Victor Sierra at VSAC, he showed me a prototype 500Hz horn with a special flare rate for the TAD TD-2001. Supposedly, a stock tractrix on the 2001 will limit HF response.

BTW, this has been my impression in the past of the Edgar salad bowels, a little too down in the top for my tastes.Anyway, I visually compared the the revised flare horn with a stock S/B 500Hz horn, and in the 2001 model, the throat appeared to be conical to about 2/3 the depth of the horn, with a faster flare at the mouth. With the new flare, he said it was flat to 20kHz. Like to try it (as soon as I get some work!).

Subject: Hybrid horn flares
Posted by Wayne Parham on Sun, 13 Jan 2002 03:27:52 GMT
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You might be interested in the post called "Characteristics of various horn flares". Included in this post is a very interesting article published by Peavey Corporation called "Quadratic-throat waveguide." It describes a horn having a conically flared bell with a tractory flared throat. This is very similar, in reverse, to the shape you have described. The article is useful because it tells generally what is expected of each type of horn, and what happens when certain configurations are combined as a hybrid horn of more than one basic shape.

Subject: Re: rc network with active crossover?
Posted by Wayne Parham on Sun, 03 Mar 2002 06:19:03 GMT
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Looking back at this post, I realized that I had misread your question. You wrote, "is it possible or advisable to use an RC network between the amplifier and HF driver when going active?"But what I read was, "is it possible or advisable to use an RC network between the preamplifier and HF amp when going active?"I just had it in my head that's what you meant when I wrote my reply.Anyway, you can put reactive components in between the driver and power amp, just like if the system were not bi-amplified. But that limits your benefit from using a bi-amp implementation in the first place. In some cases, adding reactive components in the high current (speaker output) side of the system may be the only option. But in all but a few cases, I would recommend that you remove the crossover components from the speaker circuit and install them in between the preamp and main amp instead.
