Subject: Studio 2 Tower -- Theater 3 hybrid experiment
Posted by Patrick Kopson on Fri, 16 Mar 2007 20:24:45 GMT
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This hybrid will consist of the Studio 2's Vifa DX25, and the Theater 3's Eminence Delta 12LF and in a Studio 2 Tower sized cabinet with similar "minimal crossover". Port sizing will be determined experimentally, staring with sims from WinISD.I am hoping an appropriate inductor can tame the 12LF's response peek before its natural roll off (as done for the Alpha 10).What inductance range would be reasonable? Would a slightly more complex notch filter be required?Some suggestions for adjusting the DX25's capacitor (and possibly resistor) to move its roll off to better match with that of the 12LF (about 3500 Hz?) would also be helpful.I know I really should acquire and learn P-spice to figure this out myself (and I plan to eventually), but I am far more excited about this experiment than P-spice right now.I am also aware that the published efficiency of the 12LF is notably higher that the DX25, but I will pair each with better matches in the future if this hybrid doe not work out to my liking (or my son's).Thank you in advance for your help.

Subject: Re: Studio 2 Tower -- Theater 3 hybrid experiment
Posted by Wayne Parham on Sat, 17 Mar 2007 15:17:14 GMT
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Since you're essentially doing what some call a 2.5-way system, the crossover between woofer and midwoofer isn't critical. The main thing that's important is that crossover be done before the

with a 5mH to 10mH coil.

Subject: I miscommunicated
Posted by Patrick Kopson on Sat, 17 Mar 2007 17:35:52 GMT
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Perhaps I should have called it a Studio 2 Tower with Delta 12LF "instead of" Alpha 10. I have all the divers for what you describe, but I expected I would need a much larger cabinet for such a 2.5-way. Is that correct?But this gives me another idea: Alpha 6A in its own sealed 9 liter chamber with NO crossover coponents to cover 200Hz to 5000Hz, DX25 as configured in Studio 2 for above 5000Hz, Delta 12LF in ported 100-120 liter chaber rolled off as you sugest for below 200Hz.Sharing appartment walls with neighbors, my son hasn't the need for extreme efficiency and max SPL available from the horn-loadd systemsI'll probably try all these options eventually, but am curious as to what you would suggest first.Thanks again.

Subject: Re: I miscommunicated
Posted by Wayne Parham on Sun, 18 Mar 2007 04:23:28 GMT
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I see what you mean now. You wanted to make a two-way speaker with a Delta 12LFA and a Vifa DX25. It might work, but it might be too much a stretch. I haven't really looked into it. I do know the Delta 12LFA works very nicely together with a PSD2002, and crossover to a DX25 isn't much higher in frequency, so it might work. If you try it, let us know how it works out.You could also make a three-way or a so-called 2.5 way speaker. The mid-driver doesn't have to be used at deep bass frequencies, so the box surrounding it doesn't have to be large. Put a small internal cabinet for the mid-driver inside the main cabinet. You can easily make a cabinet less than 5ft3 that contains a Delta 12LFA and a midrange driver and cabinet and a tweeter.