Subject: Re: Update
Posted by Adrian Mack on Tue, 16 Dec 2003 02:32:16 GMT
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Hi WayneSure am, the graphs remain the same after 10 re-tests. Those graphs were both with the phase plug removed, seems like I won't really need it for the range I am going to use the horn in. + I get to see the nice cone looking at me now from the throat rather than a stupid piece of wood :P (although I wood have made a nice neater phase plug without nails sticking out if I had to use it, but still). What do you think about a 300Hz xover point on the 2nd horn? Its kinda of 6db "valley" between 300Hz and 750Hz. Do you think 300Hz xover is acceptable or should I run the 2225's higher to say 500-600Hz? (had originally wanted it 300Hz, well, 200 to be honest but that wasn't gonna happen in a horn the length 1/4wl of 300Hz). I want to put the horn to best use without sacrificing performance. The results are somewhat what Hornresp predicts. The 2nd graph is pretty accurate of what Hornresp thought, except that real world the upper rolloff slope was much steeper, and the 300Hz peak isn't as pronounced as what Hornresp predicts. Hornresp predicts a more pronounced 300Hz peak, then the same valley, but bandwidth from 750Hz (end of valley) to 2KHz is at a lower level, so Hornresp did not really predict a valley, but more of a 300Hz peak (the flare cutoff). Part of the reason may be because you cant really estimate a cross sectional area of the front chamber, as its a cone shape (being the air in front of the cone), but thats not the whole reason after plugging in a few different numbers for the xsection area, the above difference is still what happened. The 1st graph on the other hand, Hornresp did not predict that "shelf" on the low end, it predicted a valley between 300Hz cutoff and 750Hz (kinda like the measured valley on 2nd horn just less amplitude), but again what was measured was the shelf. The top end extension was accurate, the real world had a much steeper cutoff though, which isn't actually a bad thing. Tom Danley reccomended an ultra small 0.65L back chamber, so I am going to slap togethor one of those while I still got all my measuring gear and tools stuff out. You can expect another graph or two here in a few hours or so.... Adrian