Subject: Mysteries of Port behavior and design
Posted by Ron brady on Fri, 24 Dec 2004 16:30:54 GMT
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Seasons greeting all.I like to use WinISD Beta to run sims on various drivers. I have successfully used the program to build several designs and have come to trust its accuracy. I have noticed that every simulation ends up with a default vent velocity of .05 to .06 Mach number. It doesn't seem to matter if the driver spl is 80db or 100db. It is safe to assume that the program makes its calculations with the 1watt/1meter values entered in the T/S parameters section for each driver. Changing the spl for the driver doesn't change the vent velocity. I probably never listen to my music at only 1 watt and it is reasonable to assume that the velocity of the vent will increase as the amp is turned up to 4 or 5 watts. This poses a few questions. Is there an optimum vent velocity for my listening level? Is the sound quality of a high velocity vent better or worse or different than a low velocity vent? Is there an optimum group delay? Does a 10ms delay sound better than a 20ms delay? Any thought on the subject would be greatly appreciated.ThanksRon Brady