Subject: Re: Basshorn or Transmission Line
Posted by Cal on Tue, 14 Jun 2005 05:36:18 GMT
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I have been, um, "lurking" for some time here, have read and downloaded and pondered. This last interchange between yourself and Tom Danley aroused my enthusiasm, and so I post. The resonant nature of horns around cutoff, become like pipes, I can see it! Reactance of horns in Hornresp at cutoff and above, makes me think of Augspurger and King, not that I understand those guys, either!! So sweet!! So much fun.Please accept my thanks. You are quite a fellow.A while back you talked about cooling bass horn drivers by pumping air with the driver vents. I have thought about this also. Mr. Danley had reservations about drivers pumping air for cooling on a LAB posting, and scared me off some. I also wonder if the inertance of a long cooling tube system would imply a very low frequency low pass filter, maybe a serious impedance mismatch, so not pumped well by the driver without a series resonant volume. (You want inches per second of air flow, direct current!) Could be the compliance in the driver cooling passages would work, but the business is beyond my grasp. I think that the system would be like this, anyway, and so have to be made broad banded in order to work. Makes me realize my limitations even more than usual!! The check valves I can do, their acoustic behavior I can't!!Anyhow, I think a heat pipe like arrangement using aftermarket automotive "oil cooler" heat exchangers, filled with a convenient refrigerant, an alcohol maybe, gravity circulated, an orifice to control the liquid phase flow rate, fans on both hot and cold ends, etc. could be made to work. No compresser needed, heat is flowing down hill not up, maybe viton hose for connections, 12v. fans, etc. Have to be careful about vibration causing metal fatigue in those driver back chambers. Might have to use aero parts. Thoughts?