
Subject: What do you make of this "white paper"?
Posted by [Bill Epstein](#) on Thu, 23 Nov 2006 03:45:23 GMT
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The former owner of Inner Sound electrostatic speakers
Transmission Line bass

Subject: Everyone has a opinion!
Posted by [spkrman57](#) on Fri, 24 Nov 2006 15:34:58 GMT
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If what is contained in that white paper were true, companies like JBL and the rest would have adopted that format. A well designed vented enclosure does not sound slow and flabby like the article is stated. A transmission line is usually a lower efficiency system. Compression and distortion will be much higher than a properly designed vented or sealed system to attain the same output levels. That's my 2 cents worth at least! Ron

Subject: Re: What do you make of this "white paper"?
Posted by [LAL](#) on Fri, 24 Nov 2006 18:48:42 GMT
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Bill, I am no expert, but there seems to be a number of people who prefer the sound of transmission lines, dipoles and infinite baffle bass. I think the common denominator in these three variations is the prevention of the speaker's rear wave reflecting back through the speaker cone. That is what prompted me to try filling my Stage 4Pi's with polyfill (together with Vance Dickason's comment that doing so would result in a cleaner midrange, along with some loss in efficiency and higher F3 - see Loudspeaker Cookbook) as I mentioned in response to one of your earlier posts. For bass only purposes I would think transmission lines would be practically limited to relative small drivers and would consequently give up a lot of dynamic range. Larry

Subject: Reflex cabinets, transmission lines and bass horns
Posted by [Wayne Parham](#) on Fri, 24 Nov 2006 22:55:57 GMT
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Transmission lines are similar to vented speakers in that they employ a resonator to load the resonators, but the end result is similar. In a transmission line, the system is tuned to a single

frequency, just like the Helmholtz frequency of a bass-reflex box. Since standing waves are the tuning mechanism in a transmission line, there are unwanted harmonics to deal with above the

somewhat down the length. Careful placement can reduce the next (unwanted) harmonic up by standing wave cancellation and stuffing in the line can reduce the harmonics above that. The best work on transmission lines, in my opinion, is by Martin King. Quarter-Wave.com Another relationship worth mentioning is basshorns, which are also tuned pipes. Basshorns are tapered, but their mouths are usually small in relation to wavelength, so they act something like transmission lines. If the mouth is large enough, the horn acts like a wide band resonator. If too

larger the mouth area is, the more it acts like a true horn with flat response through its pass band. [Basshorn or Transmission Line](#)