Subject: Re: Kilomax-18
Posted by Wayne Parham on Wed, 21 Jul 2010 20:58:34 GMT
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You betcha. Put it in a 10ft3 cabinet tuned to 25Hz. It will actually work well in even larger boxes, up to 20ft3, if you have the space for a cabinet that large. Give it plenty of vent area, at least 50in2. That will work very well down low.

Below ~100Hz, the only things that matter are box tuning and room modes. Your main concern isn't summing, because boundary reflections come into the mix. Having multiple bass sound sources increases the number of modes, and helps average everything out.

Above ~250Hz, the sound averages into a reverberent field. Modes from interaction between the source and reflections become so closely spaced they aren't noticeable anymore. This isn't the same thing as freespace, but you still want summing between direct sound sources to be constructive. So the distance between high frequency sound sources should be made closer.

Between these two frequency ranges, you transition from discrete modes at low frequencies, to more densely spaced modes as frequency goes up, to indistinguishably close modes at high frequencies. In the transition region, between about 100Hz and 200Hz or so, the upper midbass to lower midrange, you don't really want the sound sources to be too far apart, because then you can detect the distance between them and it doesn't sound natural. But neither do you want a point source because there are still some noticeable room modes. The floor bounce notch usually falls in this range.

I tend to like having sound sources in this transition range separated by a few feet. Not tens of feet but not less than a foot either. This is a good way to get smoothing of the upper midbass and lower midrange, around 100Hz to maybe as high as 200Hz. Either run a midrange and woofer separated by a foot or two, or run a flanking sub near to the mains, just a couple feet away. Overlap them in frequency range to obtain modal smoothing.