
Subject: Jim's dirty little secret..... Help from the master...

Posted by [Marlboro](#) on Thu, 07 Sep 2006 03:16:31 GMT

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"The dirty little secret of line arrays is that the woofer line amplitude response starts rolling off at a frequency that is about 1/2 wavelength spacing center to center. In other words I lied when I said that the crossover could be at one WL spacing in my white paper. Measurements of the array would tell the truth. Hence, you'll need a cross under 2,000 Hz for sure."What are the parameters of the secret?How many line arrays are designed with bi-or tri-amping, active constant Q equalizers, and electronic crossovers(digital or analog)? And....does this secret more effect the passive cross than the active with bi multiamping and equalization, via room mic-ing?Is it affected by the slope of the crossover? So that, would a cross of 48 db or 24 db electronically show less impact than one with all the "stuff" in a passive one?And if one is aware of this phenom, then would it not behoove the individual builder to choose a mid/woof with a natural or available rise in amplitude in the crossover region, in a circumstance where the C-to-c is not optimal for 1/2 a wave length and is more like 3/4 a wavelength?Marlboro
