Subject: MTM vs vertical MM and summing?
Posted by Norris Wilson on Wed, 05 Nov 2008 23:07:29 GMT
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How would one deterimne the summing of two woofers in either MTM or MM arrangement, and their diferences? The woofers in question would be the JBL 2118J's. Just guessing they would be run from around 200Hz and up to around 2kHz.The tweeter would be a Beyma CP385Nd with posible BMS 2193elliptical 90x40 degree waveguide with 1.4kHz cut off.http://www.jblpro.com/pub/obsolete/2118.pdfWould using two wofers together in either of these vertical arrangements reduce or increase output, and or distortion levels?What would be the possible pro's and con's of this type of dual woofer midrange versus a single driver midrange such as an Eighteen Sound 10NDA610?http://www.eighteensound.com/index.aspx?mainMenu=view_product&pid=241Also, what is the formula to calculate the nulls of a 90 degree angle between a woofer and tweeter? Again!ThanksNW

Subject: Re: MTM vs vertical MM and summing?
Posted by Wayne Parham on Fri, 07 Nov 2008 05:18:34 GMT
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Horizontal directivity of a direct radiator is approximately 90° at the frequency where diameter equals wavelength. This is a good place to crossover to a 90x40 horn, because the horizontal directivity matches.Vertical directivity is determined by the spacing of the drivers, their coverage patterns and the crossover frequency, phase and slope.You can always put the drivers on a baffle, then measure to find the appropriate crossover points and slopes to put the nulls where you want them to be. Of course, you have to be in the ballpark when positioning the drivers on the baffle, but the end result is determined by the overlap frequencies and phase, which is set by the crossover.

Baffle spacing, phase angles and time alignment, revisited