
Subject: Array driver response

Posted by [Bill Fitzmaurice](#) on Fri, 09 Dec 2005 14:33:53 GMT

[View Forum Message](#) <> [Reply to Message](#)

When considering drivers for use in an array an often overlooked factor is that the response of a speaker utilizing multiple drivers is not necessarily linear with respect to the response of a single driver. In fact, as more drivers are added the system response becomes significantly flatter, especially in the upper frequencies. This is a result of the limitations of mutual coupling vis a vis the $ka=.02$ upper response frequency corner. The NSB presents a very good example of this. Because of the NSBs pronounced response spike at 7kHz many designers dismissed the driver out of hand as unsuitable for hi-fidelity applications. While that judgement was true with respect to one or two drivers, it was incorrect when applied to a line array of at least four drivers. As more drivers are added and the upper response frequency corner goes lower the response peaks and valleys flatten out quite nicely, starting at the high end of the spectrum, working their way down as more drive elements are added to the array. In the case of the NSB a six driver array exhibits no unusual spiking at 7kHz.
