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Subject: Re: Benefits of a wideband driver for off axis decay

Posted by [Bob Brines](#) on Thu, 06 Oct 2005 11:35:18 GMT

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Predicting the directivity of a full-range driver is probably nearly impossible. In order to be be "full-range", the driver has to operate into break-up mode, then it mechanically crosses over to the whizzer cone or dust cap and the process starts over. The graph above is for a speaker using the FE167E, a 6" whizzer-cone driver. The plots are 0, 30 and 60 degrees. You can speculate as to which part of the driver is producing what frequency and where cross-over points are. In any case, there is a lot more energy off axis than for a normal 6" driver. My experience is that the speakers work best toed to cross behind the listener. Imaging is still good at this point and the overall balance is better than normal toe-in. Straight forward, zero toe works well for HT, but leaves too much hole in the middle for music. BobBob

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