Subject: Re: Benefits of a wideband driver for off axis decay
Posted by Duke on Thu, 06 Oct 2005 06:23:22 GMT
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I've played around with high-efficiency wizzer-coned Fostex drivers a bit of late, and their HF radiation pattern is considerably wider than piston theory would predict. But then I suppose that's to be expected of a driver in breakup, which is what I think is happening with a wizzer cone. The system I recently built and displayed at RMAF is based on the Fostex FE-206E, and in the design I went to some length to generate a well energized, tonally fairly well-balanced reverberant field, making a few trade-offs along the way. I did not try to control the pattern tightly, as I don't think this type of driver lends itself to particularly well-controlled radiation patterns. For instance, even with a lot of toe-in (Geddes-style) I was still getting some undesirable sidewall interaction from the 8" diameter Fostex drivers, and had to resort to using a plant along one sidewall.In my experience a good horn or waveguide-based system does a considerably better job of radiation pattern control, provided attention is devoted to minimizing the pattern discrepancy between woofer and horn where they transition. A good fullrange driver has its attributes, but when it comes to pattern control a waveguide or constant-directivity horn is a much more effective device.Duke