Subject: Re: Widerange midwoofers, specs, and x-o pts...
Posted by Marlboro on Fri, 25 Sep 2009 03:47:03 GMT
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I don't have time for any more research.

What I've discovered so far is not that the ribbon is inherently wider in dispersion that the dome. What makes some of them have such wide dispersion is a kind of horn loading that you see in the HVRT1C or in the Pioneer ART-55D, but that you don't see in the Eton AR Air motion.

There is another factor. The ribbon may not actually have a wider dispersion than a dome:

The output of a planar ribbon driver is evenly distributed over the entire radiating surface, which results in no wave cancellation, diaphragm break-up or resonances. The flat radiating surface also results in a coherent wavefront with even dispersion.

This may be what is perceived as wider when in fact it is really the coherence with less cancellation.

There is a third factor. Ribbons tend to stay the same in their dispersion characteristics as they move through the different frequencies, However Domes tend to beam and the frequency rises. I would be interesting to put a line of domes together on some kind of rising and falling horizontal angle to the listening area. This would prevent the effect of the beaming from influencing the sound. it owuld be fairly easy to do with a line of 30 dome tweeters.

But the problem remains that even a lowly Dayton Neo20FA will be able to match or beat most ribbons in FR, distortion, and spectrum decay.

Its an interesting discussion. I wish one could say there was an answer hands down. I think it still means what people like:

Heres a comparison quote from a guy on Audiocircles about 3 years ago:

"IMHO, what I noticed immediately between the tweeters was the difference in apparent "air" and "detail". Cymbals seem to have a natural shimmer to them, along with triangles etc.

"The 1" fabric dome seems to have more "body" to the sound and less "air". Between the two, I lean towards the ribbons but have grown to like the fabric dome. "

I'm still researching it.

Marlboro