Subject: Re: Determining Compatibility between components
Posted by AudioFred on Sun, 01 Nov 2009 21:04:11 GMT
View Forum Message <> Reply to Message

I wouldn't be inclined to combine an array of expensive woofers with cheap tweeters or vice-versa, but that wasn't what I was referring to when I mentioned driver compatibility. The issue with driver compatibility is whether the woofer and tweeter arrays will combine to form a seamless and coherent sounding speaker.

Driver compatibility is more important if you're using a passive crossover, which is what's found in most designs. An example of driver incompatibility would be combining a BG RD-75 tweeter with an array of 86dB sensitivity woofers. The woofer array would be too sensitive to combine with the tweeter, and padding a woofer array isn't a good practice.

If you're going active the sensitivity issue becomes moot, as with the Dali Megaline speaker. But the crossover capabilities of the two arrays are still an issue. For example, combining an array of Dayton 3/4" neo tweeters with an array of 7" midwoofers wouldn't work too well, even with an active crossover.

If I were planning to spend $10K on drivers I believe I would want to consider an active crossover to get the best possible sound out of them, and then the issue of amplifier and crossover sound quality and design would also come into play. I would want something that offers the greatest possible resolution and control, and would be looking at DEQX or some other DSP system that gives me the option of combining different crossover frequencies for the woofer and tweeter arrays, asymmetrical slopes, and equalization cabability to smooth any anomalies in the woofer or tweeter array response.