Subject: Re: Flanking Subs vs Helper Woofers
Posted by Wayne Parham on Thu, 07 Feb 2013 18:19:22 GMT
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I'm not sure the use of FIR filters is a significant difference in this case, since there is no need to adjust magnitude and phase independently. I assume that's what was originally on their minds though - They may have chosen that filter approach so they could manipulate frequency and time response independently. But since phase in the room is all over the place anyway - the whole approach it to create dense interference - I think IIR or analog filters are just as useful. I don't think they are necessarily better in this application though either, more that it's six one way and a half dozen the other. Which brings me back to the point that I think we're seeing some convergence of approaches here. They're becoming very similar not just in concept but also in execution.

And again I would remind any readers that I think whatever method you chose to smooth response below 100Hz, do not forget to deal with the range above that. I believe the octave between 100Hz and 200Hz is as important or more so than the octave between 50Hz and 100Hz, which is primarily what distributed multisubs address. Flanking subs smooth the the range above 100Hz, through the transition region, and distributed subs smooth the deeper bass range below 100Hz. What we are essentially seeking is a spatially distant array at low frequencies (<100Hz), narrowing to a closer-spaced array at low-midrange frequencies (100Hz-200Hz), gradually transitioning to a point source in the statistical region above 200Hz.
Flanking Subs vs Helper Woofers, revisited