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Subject: Flanking subs also pulling LFE duty  
Posted by [rvsixer](#) on Sat, 15 Aug 2015 02:59:01 GMT  
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Hello All,

I currently have a nice 5.2 speaker setup (all DIY), that I enjoy very much (<http://techtalk.parts-express.com/showthread.php?232472-Sunflower-HT-Music-LCR-Build&p=1868826#post1868826>). But the time has come for something new. Well, actually something old and missed (big 15" woofers !!!).

I am considering a 4.4 setup comprising of 4pi mains, 1pi surrounds, and four of my current 8" 1 cubic foot Dayton RSS210HF subs. The 4pi's would be upgraded to 7pi's in a few years, as the retirement home surely will have a nice two corner HT/listening room.

After reading here extensively about Wayne's flanking sub concepts, I am getting the normal way to set this up would right/left flanking subs running alongside full range mains, and LFE covered by two (or more) distributed subs.

Now, I have gotten really used to and enjoy my carefully placed/tuned/blended bass managed+LFE subs, that dig down nicely to around 17Hz in (small) room. Given the 4pi's don't dig quite that deep, not to mention the sats, I started thinking about how to setup up stereo flanking subs, that could ALSO could be called upon to help with distributed LFE duties. AND be able to have stereo mains that run all the way down to 20Hz and below. AND not need six subwoofers to do it, only four (space limited).

Here's the idea:

- 1) Low pass mains/sats/(phantom)center as normal using AVR bass management (let's say 40/60/80Hz, whatever sounds/measures better). This gets us the full 20Hz up level matched response on all channels, with four subs taking care of the lower modal regions, and relieves the main woofers of some bass duty (possibly resulting in an improved midrange).
- 2) Setup a 100-120Hz 2nd order Butterworth lowpass filter on the flanking subs. This gets us flanking sub configuration from bass management frequency to ~200Hz with the mains.
- 3) Feed LFE from AVR to all subs (flanking and distributed). This gets LFE reproduced among four distributed subs.

I have an Outlaw ICBM-1 that would allow this type of configuration. Alternatively this could be done using a summing mixer (or miniDSP) combining AVR R/L and LFE preouts, along with a sub plate amp's crossovers.

Crazy? Plausible? Workable? I have a feeling I missed something obvious....let me have it .

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