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Subject: Re: flanking subs with small mains

Posted by [Wayne Parham](#) on Thu, 07 Mar 2013 04:13:52 GMT

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The subwoofer output is merely a summation of all channels low-passed, including the LFE channel, of course. I imagine some Dolby Digital tracks put content in the LFE that isn't anywhere else. But that's not the case in other tracks, like Dolby Surround and Pro Logic. So I know there are modes that can be used that do not present any content to the subwoofer output that isn't present in at least one of the mains, and more likely, in all of them summed together.

But I do think you're probably right when running Dolby Digital and perhaps DTS that the LFE channel sometimes has content that isn't present in any of the mains - whether in large or small mode - and this content is summed in the subwoofer output. So for home theater, when running the Dolby Digital mode, if you want LFE infrasound in the mix, I think what you're saying may be correct.

I can't help but wonder though: If you configure the processor to have no subwoofer, wouldn't it necessitate sending the LFE channel to the mains? Seems like any processor that failed to do that would be defective, an oversight in firmware, at the least. That's the mode I always use, and then run the subs off the preamp outputs for the mains, through an external low-pass filter, of course. I don't believe I am missing any LFE content that way, although to be candid, I haven't checked. I assumed LFE content was sent to the mains when "no subwoofer" was selected.

In any case, modes where the LFE signal is unique is where I think the blending approach you guys are talking about makes a lot of sense. It's not needed for stereo, and it's not needed for the formats that don't rely on an LFE channel. But for the formats that do, this subwoofer/mains mixer sounds like a great idea. It's the way the "full" or "large" mode should mix the signal going to the mains, low-passed for flanking subs. And certainly in cases like what Darrell is talking about - where he selects "small" mode to provide high-pass for his mains, but then high-passes low enough (60-80Hz) to get blending for flanking subs - this subwoofer/mains mixer approach seems very attractive to me.