Subject: Re: 4pi Commercial Dinner Theater Build
Posted by Wayne Parham on Fri, 02 Sep 2011 02:36:41 GMT
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Flanking subs and distant subs are two different things, and serve two different purposes. Both provide extension, and beyond that, the main purpose of the flanking subs is to smooth the upper midbass and lower midrange and the main purpose of the distant subs is to smooth the lower bass. Flanking subs are close to the mains and are low-passed sometimes as high as 200Hz but more often between 80Hz and 120Hz, depending on the slope. Distant subs are put further away, and are low-passed below 60Hz.

Flanking subs are in near proximity to the mains, a meter or two away from the mains in all three dimensions. The mains are on stands and the subs are on the floor, the mains are forward of the wall behind them and the subs are pressed back to the wall. They are also both inside or outside the mains, whichever is most convenient. As I said earlier, these smooth the upper midbass and lower midrange modes. There is almost always a strong notch around 120Hz to 140Hz from axial modes between ceiling and floor, and also from self-interference from the wall behind the speakers and floor bounce. The flanking subs main purpose is to smooth these notches.

Distant subs are usually placed somewhere in the opposite side of the room. It almost doesn't matter where the distant subs are placed, as long as they aren't in the same place as the mains or flanking subs. We want diversity of positions for the sound sources in the modal range.