Subject: Re: Tuning below Fs with JBL 2226H?
Posted by Wayne Parham on Tue, 22 Jan 2013 16:21:08 GMT
View Forum Message <> Reply to Message

Lobing from acoustically distance sources is undesirable, that is true. It is to be avoided where possible, and outdoors or in very large areas, you want point source summing, which is

summing loses meaning. The reflections are out of phase with the direct sound. Even a single source gets interference from its reflections, which are nearly as loud as the direct sound. The result is deep notches at some points in the room, with hot spots in between them.

Sound energy distribution is like a checkerboard of hot and dead spots, and the pattern is frequency specific. At low frequencies, in what is called the modal region, there are large, widely spaced nodes. As frequency goes up, the number of nodes increases and distances between them become smaller. Eventually - at the Schroeder frequency, approximately 200Hz or so - the nodes become so closely spaced they cannot be distinctly identified. This is where the energy distribution becomes more of a statistically averaged sound field.

Room modes are the reason to use a multisub configuration. It is done to smooth the sound field at low frequencies by making sound in the modal region act more like the statistical region. For more information, see the link below:

Room modes, multisubs and flanking subs