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Subject: Vertical directivity

Posted by [Wayne Parham](#) on Wed, 10 Mar 2010 14:04:37 GMT

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When sound sources are stacked vertically, there are interactions between them that change with movement along the vertical plane. Their positions are as important, if not more so, than the vertical coverage patterns of the individual sources, because as path lengths change, so change the phase relationships between sound sources. Ultimately, these relationships set the shape of the forward lobe and the positions of vertical nulls.

More information: Pi horn design philosophies

Phase angles, crossovers and baffle spacing

Baffle spacing, phase angles and time alignment, revisited

Matching directivity in the vertical and the horizontal planes

DI-matched two-way loudspeakers

Crossover optimization for DI-matched two-way speakers

Imaging, placement and orientation

Corner Horn positioning "Sweet Spot" for listening

Making speakers "disappear"

Recommended toe in

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