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Subject: DI matching

Posted by [Wayne Parham](#) on Sun, 11 Nov 2007 22:42:32 GMT

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DI is an abbreviation for directivity index. DI matching is a design philosophy of making crossover near the frequency where the direct radiator directivity collapses to be near that of the horn. It makes off-axis response closer to a straight line, actually a diagonal line because there is still more LF energy since the midwoofer radiation pattern is wider and wider as frequency drops. The reverberent field is more uniform when using DI matched speakers than when using speakers with arbitrary directivity because off-axis response is closer to being flat. I think this is a characteristic that is nearly as important as on-axis response, since reflected energies in the room make up the tonal character of what you hear.

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