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Subject: Re: Help with new design

Posted by [Wayne Parham](#) on Wed, 13 May 2015 14:10:51 GMT

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The problem is you can't consider any horn or waveguide to be generic, because they all manifest specific characteristics and those must be accounted for in the crossover. The directivity, passband, acoustic center and acoustic load are different for each device.

But to speak solely about the configuration - A constant directivity cornerhorn can be implemented as a two-way loudspeaker. I did that for a few years. Everything is an exercise in balancing priorities, of course. The midrange is best run pretty low, in my opinion, so it can be coupled to the boundaries at the low end and so it blends well with the bass bin. This tends to limit it on the high end, since all horns have bandpass characteristics. That's why I've usually run constant directivity cornerhorns as three-way systems like they are now.

About a comparison between compression drivers and cone midranges for large-format midhorns, each has specific advantages but I think a cone driver is clearly the best choice for the low midrange. It's a matter of displacement, something that the compression driver just doesn't have. The cone driver has larger surface area and more excursion capacity, both needed for lower frequencies.