
Subject: Re: Best midbass horn and question about lobing
Posted by [Wayne Parham](#) on Tue, 07 Oct 2014 20:26:27 GMT
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I would proffer two observations, one that you asked for and one that you didn't:

First, if the required SPL can be achieved with a single horn, I would always prefer one horn to two because of the interference that necessarily results. Of course, you still have the distance to an adjacent subsystem, e.g. woofer which must be summed through the crossover. But blending those two subsystems is easier than blending a pair of horns, in my opinion. You can get the summing between woofer and midrange right, if you use the right crossover frequency and source location. But you can never eliminate the lobing that comes from a pair of overlapping drivers running the same frequency range.

Second, the one you didn't ask for. This has to do with a different configuration, specifically, a folded horn. I've made some midbass horns folded and some straight. I've come to the conclusion that above 200Hz or so, it's pretty important for the horn to be straight.

Basshorns are almost always folded, and it makes sense because of size constraints. But I wouldn't run a basshorn above 100Hz.

There's a temptation to do the same thing with a midbass horn, but the problem is this range blends with the midrange. And getting the folds at the right dimensions to prevent standing waves is tricky, to say the least. I'd go so far as to say it's impossible. So in the land of competing priorities, I'd definitely vote against a folded midbass horn, or any horn run any higher than about 200Hz.