Subject: Re: Horn Throat Constriction
Posted by PointSource on Sun, 07 Jun 2015 19:05:53 GMT
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I knew in the back of my mind what your answer would be: model, build & measure! I have to decide whether the concept is worth the effort & expense.

The 2 sources don't actually combine at the throats; the 2 passages combine in parallel at the start of the common conical flare section. Either way, the 2 wavefronts will expand & impinge upon each other.

The goal is to achieve the longest path length within the given enclosure dimensions, including the use of 180-degree rounded curves. In order for the wavefronts to arrive at the conical flare relatively intact, I've surmised (guessed) that the passage width needs to be about a quarter of the upper frequency's wavelength. I'm concerned that the initial narrowing may pervert the waveform too much.

I'm working on a preliminary mechanical drawing (the old-fashioned way on 1/4 scale graph paper). I can post a photo in the near future if there's any interest....