Subject: multiple compression drivers on a single lense...
Posted by Adam on Tue, 29 Jul 2003 03:34:11 GMT
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Hey guys,I know that it is possible with bass bins to design them so they don't function properly alone, but when assembled in multiples, run great because the mouth area on the horns combine together (because they are adjacent) to form essentially one giant horn, with a single mouth and multiple drivers.I'm wondering if this same principle can be applied to midrange and in particular, high frequency horns as well. I'm sure it can be in theory, but my primary concern is comb filtering of high frequencies between two high frequency drivers. I'm wondering if you designed a lense to fit a given compression driver, effectively divided it in two (with two throats) and mounted two compression drivers onto it, each utilizing one half of the horn, if there would be major issues with comb filtering... Also, I have seen some old school horn lenses (giant, cast iron things) which were actually a single horn, but featured a "Y" split at the throat to mount two seperate compression drivers onto that lense...Are there any phase, comb filtering, or any other issues with utilizing a design like this? The primary goal of this of course is to get more crystal clear output from a single point source. The thing that irks me about large-scale P.A. systems is the use of numerous HF units in relative close proximity but aimed in different directions to provide the necessary output... I can only imagine the destructive interferance this sort of setup has on frequency response and such, and it occurs to me that any attempt to minimize the number of point sources from which you are delivering high frequencies in particular, the better off you are... But to do this you need to increase the amount of output they can deliver individually... Thoughts?Adam