Subject: My observations and some basic measuring show...
Posted by ToFo on Wed, 27 Mar 2002 16:28:35 GMT
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...that the delta 15 used in theater 4Pi delivers the goods up to x-over. I was sceptical when I came across the Pi loudspeaker designs. I couldn't turn away from so many raving fans, so I had to hear for myself. Right away I noticed that delta 15's are very quick and detailed up to about 2KHz. I still thought crossover at 1.6KHz was too high so I got my extra amp and my active crossover to try lower crossover frequencies. I just kept adjusting one or two clicks at a time untill the balance of fundamentals to overtones seemed most natural. I was surprised to see after two days of great midrange, I was set to 1.6KHz. Wayne has it right on! maybe other horns & drivers would not like the delta 15 so high, but im my system it does really well. As for cone size cancellation and breakup issues, I have some observations that may explain why this driver works so well. First the breakup seems to happen gently from about 2KHz up to 5.5KHz. A 15 inch driver beams very sharply at the top of this range. (where the breakup sounds pretty bad) My ears and my meter says that this beaming is less that 10 degrees wide. So unless the delta 15 is installed near listener height, the breakup goes blasting straight into the bottom of my sofa. The crossover takes care of it pretty well also. Along with the obvious bass issues I wonder if this part of why these speakers are supposed to stay on the floor. I really like how the big cones gradually narrow their dispersion as they near the crossover frequency. The horn lenses are designed to spay a 90 degree pattern in the horizontal plane, and I think it would sound weird if the mids were real strong where the horns were not spraying.Just my ears, a basic meter and some decent gear, so take it for what it is worth. (my other loudspeakers are acoustat's and they definately do midrange well. The Pi's hold their own even in exotic company)Thomas F.