Subject: Re: Basshorns - Pros and Cons
Posted by elena on Tue, 06 Feb 2007 13:01:36 GMT
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Hi, thanks for replying.Actually I'm abroad, as I'll be back home I'll start elaborating.The .pdf document is totally missing the [twin] reflex operation above the cutoff of the horn, I'll give a practical perspective of the system, and all formulae sufficient to calculate and build a system. I feel we together may pursue this way further and get an even betetr result, for instance employing a hyperbolic horn at the throat and a tractrix at the mouth, along the line of the "rubber throat" of the Klipsch design.This case the resonance frequency should be more better determined by empirical method, rather than from the theory, as a closed form to solve the integral of the formula could be missing.Beyond the theory, there's the practice, so it's time to take the drawings, build the cabinet and test the system. We must not forget that the cabinet lodges a 55 Hz horn, with a optimum mouth on the eigth space, and due to reactance annulling and front reflex porting capable to go down to 30 Hz, as the [twin] reflex operates with a tuning frequency which coincides with the free-air woofer frequency, that is 29 Hz (half the cutoff of the horn). Even without porting along the horn pathway, the system would be worth making.This is what I am willing to embark on, a 2.nd system with the hyperbolic horn to be the testbed of the approach. It is clear that this is a home system, as the PA and sound reiforcement don't need such an arrangement to best the performance. But for your home it could help to balance room availability and performance, reducing space requirement without affecting the transient ringing in the low bass band.