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Subject: Next project - small woofer unit + Horn - WAF warning

Posted by [roland](#) on Fri, 15 Oct 2004 18:29:41 GMT

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In the future living room I want great speakers - I want horns. My wife hates boxes - so I figured a solid wooden salad bowl type of midrange/tweeter - pretty yes?? But then I run into trouble. I need an as small as possible woofer solution. I see that the Kappa 10 pro only needs about 10 litres (eminence website). Forced to compromise I am more keen on high efficiency than great bass extension. A 40 Hz -6db point would be great, I can live with anything that gives some output below 50 Hz. Cornerhorn possible, at least 3 feet available in all corners. +96DB/1W desired. Driver suggestions greatly appreciated. Thanks, Roland

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Subject: Re: Next project - small woofer unit + Horn - WAF warning

Posted by [Martin](#) on Fri, 15 Oct 2004 19:01:15 GMT

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Roland, An isobaric design would cut the volume of an enclosure in half. It costs two extra drivers, but is smaller. Martin

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Subject: Re: Next project - small woofer unit + Horn - WAF warning

Posted by [Wayne Parham](#) on Sat, 16 Oct 2004 06:21:07 GMT

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Hi Roland, I'm sure you'll be real happy with the Kappa's, as with many of the other Eminence speakers. You might also look at the JBL 22xx series and the Eminence Magnum series parts. They are great, high-quality candidates, in my opinion. Wayne

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Subject: pialign Kappa 10 pro

Posted by [roland](#) on Sat, 16 Oct 2004 10:01:58 GMT

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I just put the figures for the k-pro 10" into pialign, I get ~10 litres/0.368 cu feet and the dimensions 17.2x8.6x4.3". If making a corner horn out of this, it would become 3 times deeper, with the last third forming a right angle. That's a pretty compact corner horn. With a wooden horn on top, I think we have something I could sell into the living room:) Granted I did my homework properly AND the kappa pro 10's provide some bass extension:) this could be good. Thanks, Roland

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Subject: Re: pialign Kappa 10 pro  
Posted by [Wayne Parham](#) on Sat, 16 Oct 2004 19:28:46 GMT  
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Hi Roland, Most of the Eminence 10's are tuned like this. They're really midrange/midbass drivers and great for horns or direct radiating mids. They have small Vas and low Qes so the boxes are tiny and bass response isn't very deep. Pialign recommends a 0.368ft<sup>3</sup> chamber tuned to 86Hz, and BoxPlot recommends half this size at about the same tuning, 0.19ft<sup>3</sup> at 91Hz. The PiAlign'ed solution has f<sub>3</sub> of about 95Hz and the BoxPlot tuning has f<sub>3</sub> of about 120Hz. With a subwoofer,

35Hz. The use in corners will help the response a lot. Another alternative is the Alpha 10, which will allow you to tune the system for much deeper bass, albeit in slightly larger cabinets. The Delta 12LF is another possible candidate for you, provided you aren't opposed to using a little bit larger speaker. Wayne

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