Subject: Re: pi corner horn
Posted by Wayne Parham on Thu, 15 Jan 2004 23:49:32 GMT
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PiAlign suggests a 0.38ft3 cabinet tuned to 41Hz. That is a very small cabinet, and it is sometimes difficult to pack everything inside a motor chamber that's this tight. Especially in this case, with the motor extending almost 8" inside the cabinet.Performance from this cabinet is excellent, with a nice flat response curve. Really, you can use any box size between 0.4ft3and 0.8ft3 tuned to 40Hz, and response remains nice and flat. If you get much above 0.8ft3, the system becomes underdamped and peaky. But you can employ an EBS alignment using cabinets between 1.0ft3 and 1.5ft3 tuned to 30Hz. This gives extended, deep response with a fairly shallow shelf of only 3dB reduction. That's a pretty good solution.If your cabinet is much larger than that, it really should be sealed. There are many that prefer a sealed box, and if that is what you like, then a large box is acceptable. But f3 is way up there at around 100Hz, so I don't really like this approach. Then again, rolloff is slow and gradual, so it isn't like you are absent of bass or anything like that. Still, I'd run this speaker in a ported box between 0.4ft3 and 1.5ft3, tuned in one of the ways described above.At any rate, once you've chosen a motor chamber size, then you can

that are critically damped to slightly overdamped for this configuration. EBS alignments are acceptable, as are other slightly peaked (underdamped) alignments, but as you might expect, they'll increase punch at the peaked frequency. This is sometimes pleasant, sometimes not. But

system is well formed and sounds good, then your cornerhorn will sound good too.