Subject: 3/4 cams and basshorns
Posted by Wayne Parham on Sat, 23 Oct 2004 05:45:40 GMT
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I'm sorry to be a curmudgeon, but the "hornsub shootout" thing always rings hollow to me. There are many reasons, but the biggest one is that cabinets of this size depend on direct radiation of the woofer at the lowest frequencies. That sort of takes the "best horn wins" argument out of the equation, since none of them are operating as horns down low anyway. Above 40Hz, we're cooking. But below 40Hz, we're comparing woofers in a large box. By 20Hz, a basshorn that's "small" enough to be portable is horn in name only.The other side of the coin is that room gain lifts the lowest frequencies quite a bit. But that's really the point. At the deepest frequencies, the horn begins to act more like the front chamber of a BP box. So that and the woofer, rear chamber and room are what's most important to response. And of course the EQ used to bump up the bass where horn response falls off.I've seen guys boasting about basshorn performance at frequencies that the flare couldn't possibly support. Models show it shouldn't and measurements show it doesn't. Put it in a room, and boundary conditions help but you still don't have horn gain under horn cutoff, and some response claims fly in the face of that. Down very low, what you really have is room gain from direct radiators in a fancy box.I love horns, and they've been all I've used for 25 years. I love basshorns too. But when I hear claims of 20Hz - and sometimes claims of output under 10Hz - from a 30Hz horn with an 1/8th size mouth, well, I would hope that people would do a better job of interpreting what's really going on. It all reminds me of guys talking about doing 7 second quarter mile times in their Chevy with a "3/4 cam."I can appreciate people here making basshorns that are most efficient above 40Hz or 60Hz. Most program material is above 40Hz anyway, and so having improved efficiency from horn gain above 40Hz or 60Hz is a worthy goal. But I've seen bait-and-switch, fancy marketing names given to well-known properties, and product development put on hold to eek the last bit of profits from a cheap woofer used in a popular design. A superior product is on the backburner because the inferior one is still selling to people that love SPL hype more than they love good sound. The public is told it's the state of the art, and they aren't to be made aware of the improved device until the cow's been milked dry. So I guess I've become cynical about that sort of thing.
All I really wanted to say is that hyped performance of portable basshorns in the octave under 30Hz is really just locker room talk, in my opinion. It's fun for the boys to hang out and talk about those 3/4 cams I suppose, and that's cool, it's fun. But there's always something bigger and better, and I'm not sure I ever enjoyed watching brand rivalries when it's all basically the same stuff.