
Subject: Hornsubs verses direct radiators

Posted by [Wayne Parham](#) on Wed, 05 May 2010 14:28:13 GMT

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I love horns, as you may know. And I think basshorns are some of the most challenging and exciting to build. The problem is, they have to be large to be good. That makes them difficult to use in a home hifi environment. Maybe in a bachelor pad or man cave. But when you can't have an absolutely huge box (at least 20ft³), I'd prefer bass-reflex boxes. In my opinion, a good direct radiator is better than a compromised hornsub, especially when you run them in a multisub arrangement.

All the physically small hornsubs I've seen come in two varieties: compromised efficiency or compromised response. Most of them have horribly peaky response, like 10dB peaks and valleys. I've seen a lot of hornsubs like that, popular because they're small and easy to build. But the response is terrible. Others use a horn/pipe approach, more a transmission line than a horn. That's fine, better than peaky response, in my opinion, but it comes with lower efficiency. They're pretty much the same as a bass-reflex box in terms of performance, but larger and more complex. I'd personally rather have a nice simple Helmholtz resonator.
