
Subject: Basshorn in Car

Posted by [Mike.e](#) on Sat, 24 Jan 2004 15:07:01 GMT

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Hello and welcome to the madhouse of Mike.e's basshorn projects. quick facts 122db with sine at 50-55hz 20watt input 40hz horn (with good 50hz loading) 8" driver (25watt rms, $x_{max}=3.5\text{mm}$, $F_s=40$, $Q_{ts}=0.45$, $V_{as}=40\text{L}$) Explanation I have always loved the idea of horns. Even when i bought my speaker design book by Ray Alden, i saw melhuish's site on the internet and thought that a basshorn would be great. Soon after finding AA and other forums, i found hornresp program. This was amazing, as it was free, and basically shows reality for basshorns. for about 6 months i played with this program and learned alot. Also i learned certain woofers require small throat long horns, and other seem fine on shorter high throat area horns... My horn designs are extremely compromised-but wisely so-as no one can fit a full size horn, with hornresp the right compromise can be made and frequency response wobble can be known to some extent. basshorn built Sound quality at 122db is extremely good, ofcourse resonances are ignited in the car with ferocity! I expect the woofer has ~8-10db power compression The car is a 1991 nissan pulsar , the rear quarter panels vibrate along with everything else.. bad SPL wise... Soon il use Speaker WOrkshop to measure lots of things-FR properly..-Impedence graph-measure some woofer specs Also soon im borrowing a Digital Designs 12" woofer. This driver looks promising in a horn. Bear in mind that even car audio drivers-if they are of sufficient sound quality can be used in small basshorns.
