Subject: Re: Various questions regarding 7Pi
Posted by Wayne Parham on Mon, 18 Sep 2017 23:33:36 GMT
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Answers by numbers:

Midhorn questions:

100Hz to 200Hz region. There is enough output from both sound sources to mitigate vertical room modes and floor bounce. Proximity to the corner provides boundary loading and the horn was designed with that in mind. But midhorn output is obviously reduced below 200Hz compared to the midband. It doesn't need as much output down low because the bass bin takes over.

slopes chosen with each subsystem and driver in mind. Other choices could be made, certainly, but I cannot really say which might be improvements, which might be detrimental and which would just be changes, without any positive or negative impacts. I know of all the horns, waveguides, drivers and the various crossover topologies I chose while developing this system, these are the ones that worked best for me. There are a handful of drivers available and those are the ones I found that tested well. Each driver has its own optimizations in the crossover. The crossover schematic shows what components are needed for each driver.

3. The JBL 2012 is the only JBL driver that has tested well in the midhorn when used in this design.

Bass bin questions:
1. Yes, the version that uses an 18" driver is much larger. It's 46" x 24" x 12" and has a 4" diameter port that's 1-1/2" long.

2. Yes, the 18" version rolls off lower, as you might expect. You can model it yorself easily enough using the dimensions listed in answer #1, above.

3. Yes, the blending with the midhorn is done low enough in frequency that even a large woofer has smooth response. The only real disadvantage is the large size of the bass bin. I tend to prefer the smaller size of the 15" version, and for deepest response, augment two subwoofers at opposite corners, crossed over very low, e.g. 50Hz. This gives modal smoothing in addition to deeper extension. This philosophy incorporates a multisub approach, and is, in fact a Welti configuration with woofers in all four corners.

As for freight costs, the best way to get shipping quotes is to put an item in the shopping cart and begin the checkout process. It will ask you for your address and use that to calculate shipping by several methods and shippers. It doesn't ask for payment information until after it has calculated shipping costs, so this is a good way to check prices.

I would also recommend using a freight forwarder. They will provide a USA address, which you will then use in the Pi Speakers cart, by entering the address they give you. This will make your shipping costs much lower. Do a search on the internet to find out what freight-forwarding

companies are available to you in your area.