
Subject: Re: altec gear in a pi box??

Posted by [Wayne Parham](#) on Fri, 26 Jul 2002 17:52:13 GMT

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Hello again Kevin! You wrote: >> The T/S params for the 416b are $x_{max}=.15$ $V_d=19.20$ $F_s=25.1$ $V_{as}=26.47$ $Q_{ts}=.32$ $Q_{ms}=7.05$ $Q_{es}=.33$ $V_{id}=.2$ PiAlignments for that motor specify a cabinet of 8.5 cubic feet tuned to 30Hz. It further recommends a rectangular port having inside dimensions of 6" x 10.5" and 14" long. The response is nice and flat, with a -3dB point of 40Hz and -10dB at 23Hz. This is a very nice speaker with very full bass. >> for the 515b its $x_{max}=.18$ $V_d=23$ $F_s=24.7$ $V_{as}=19.7$ $Q_{ts}=.17$ $Q_{ms}=7.5$ $Q_{es}=.17$ $V_{id}=.22$ This one needs a much smaller cabinet. PiAlign recommends 3.35 cubic feet tuned to 54Hz, and suggests a rectangular port of 4.75" x 8.5" and 6" long. The response of this one is also nice and flat, but the system is tuned about an octave higher. Its -3dB point is 55Hz and -10dB is 45Hz. This makes a nice full range speaker, with less bass but in a smaller cabinet. >> On the crossover, I thought bi-amping necessarily meant an active >> x-over before the amps. Is this not actually true? It's an issue of semantics, really. All the stuff that makes up our amplifiers, preamps and crossovers has reactive circuits (signal modifiers) in addition to the transistors or tubes (signal multipliers). An active crossover is one where the circuit that performs signal splitting contains amplifiers, or active components, as an integral part of the crossover filters. But you could as easily install some reactive components in between amplifier circuits. Some call this a line-level passive crossover, since the filter is passive. Take care! Wayne