
Subject: 2226j (16 ohm) usable?

Posted by [vectordirector](#) on Sun, 27 Feb 2011 23:30:29 GMT

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Hi Wayne,

Please if you could, send me the 4 pi plans. A couple quick questions. Is the 4pi 4 or 8 ohms nominal? How about the individual drivers?

Also, I may have access to some JBL 2226j drivers. These are the 16 ohm spec. Can these be used in a 4 pi, and if so what needs to be done, if anything, crossover or tweeter wise to make this work? I'm seriously considering building these if these 2226j woofers can be made to work.

Thanks in advance for any info you can provide.

Vectordirector

Subject: Re: 2226j (16 ohm) usable?

Posted by [Wayne Parham](#) on Mon, 28 Feb 2011 03:35:23 GMT

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I'll send plans. You can see a spec sheet at the link below, which has an impedance chart.

scale the low-pass components but that will leave you with a speaker that still has less voltage sensitivity, so you have to increase padding on the tweeter to compensate by changing R1/R2

Subject: Re: 2226j (16 ohm) usable?

Posted by [vectordirector](#) on Mon, 28 Feb 2011 04:33:13 GMT

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Wayne,

Thanks for the information and the plans. The "J" models are used and from a thread on AVS. The guy bought 21 JBL 4648 cabinets, and lots of other JBL stuff. Seems someone was upgrading a multiplex theater. I thought it might be a way to save a few bucks on a 4 pi build. Actually he posted a pic of one and it was a J but hasn't confirmed that they all are. I have to see how this pans out and may still go for it if he has any 2226H's. Again, thanks.

Vectordirector

Subject: Re: 2226j (16 ohm) usable?

Posted by [Wayne Parham](#) on Mon, 28 Feb 2011 05:46:56 GMT

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Yes, there was a JBL "tent sale" some years back where lots of people bought JBL 2226J woofers. They're good parts, and you can use them. But they aren't drop-in replacements and the design hasn't been tested with them. Most times, people just scaled the low-pass values and let it go at that.

Subject: Re: 2226j (16 ohm) usable?

Posted by [vectordirector](#) on Mon, 28 Feb 2011 06:14:07 GMT

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As I have neither the time nor the equipment to venture into untested waters, I'll leave that project to someone else. Another question: Other than 3db of sensitivity and 5db of maximum output, what if anything does the 3pi give up over the 4pi? (Stock Eminence woofers in both) This would be in a home theater setting crossed over to an infinite baffle sub system @60~80Hz.

Posted by [Wayne Parham](#) on Mon, 28 Feb 2011 16:08:05 GMT

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way. Same sonic character, same controlled directivity. The truth is, the thing that most people

Professional Series upgrade. So when you choose one or the other, you're really choosing woofer family.

Subject: Re: 2226j (16 ohm) usable? How about this approach, Wayne?

Posted by [ohiogaucho](#) on Mon, 28 Feb 2011 19:27:44 GMT

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Wayne Parham wrote on Sun, 27 February 2011 23:46

Yes, there was a JBL "tent sale" some years back where lots of people bought JBL 2226J woofers. They're good parts, and you can use them. But they aren't drop-in replacements and

the design hasn't been tested with them. Most times, people just scaled the low-pass values and let it go at that.

These days many of us use dreadnought amplifiers with more power than we need.

A sufficient plenty of paralleled audio quality resistors, amounting to 16 ohms in parallel with the the 2226J, would match the voltage sensitivity of woofer to treble, at perhaps an inconsequential loss of 3 db in headroom. Mounting the resistors in the port draft could help cool them, maybe.

This approach would not work well for low powered SET amplifiers, but higher powered amplifiers would not mind, and might enjoy a more benign impedance curve.

Regards,
Bob

Subject: Re: 2226j (16 ohm) usable? How about this approach, Wayne?
Posted by [Wayne Parham](#) on Tue, 01 Mar 2011 14:07:52 GMT
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Shunting the woofer won't raise its voltage sensitivity. The way to do it is to increase padding of the tweeter.

Subject: Re: 2226j (16 ohm) usable?
Posted by [Bill Epstein](#) on Sun, 06 Mar 2011 14:31:57 GMT
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There are sooo many of us using 4Pi crossovers, both old and new, with 2226Js from the Tent Sale. Wayne gave me some custom coil values for mine when the new boards came out; I think they were mainly doubling the values of the coils. Who doesn't not like "big-uns"?

File Attachments

1) [IMG_1396 crossover.jpg](#), downloaded 3691 times

Subject: Re: 2226j (16 ohm) usable?
Posted by [Adveser](#) on Sun, 06 Mar 2011 19:21:41 GMT
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If I may say so Wayne...

If you can get the drivers cheap, why not just install two drivers in parallel? Or would this cause too many problems with the design of the speaker box?

While we are on the subject, does more drivers reduce the modes inside the box ala, multisub?

I looked around last night to see if there was an electrical solution and essentially there is no way to dissipate the heat with resistors and it's flat resistance to all frequencies makes them useless.

Subject: Re: 2226j (16 ohm) usable?

Posted by [Wayne Parham](#) on Mon, 07 Mar 2011 04:06:53 GMT

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A person could do a 2.5-way to good effect. Just low-pass the lower woofer at 200Hz or so. That wouldn't take much redesign because the top (mid)woofer and tweeter crossover and physical relationship can (and should) remain the same. But a person would still need to analyze standing waves inside the cabinet and go through a test/measurement cycle to dial it in and make sure everything comes together.
