Subject: 'Nother question
Posted by BillEpstein on Sat, 20 Mar 2004 15:27:00 GMT
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When they say "purely resistive load" what does it mean? Similar to the Piezo which doesn't require a crossover? If I wanted to use this thang on a Theatre 4 above, say, 8-10,000 Hz what would it need in the way of crossover parts? Would just a 1.5uF Cap do?
B-G Planar "resistive load"

Subject: Re: 'Nother question
Posted by wunhuanglo on Sat, 20 Mar 2004 18:15:25 GMT
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It means the load is constant, like a resistor, and not frequency dependent (reactive) like a loudspeaker voice coil which combines resistance and incuctance.I think first order XO at 9KHz is 4.5uF

Subject: How is this possible?
Posted by Dean Kukral on Sat, 20 Mar 2004 18:43:44 GMT
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Trying to remember my physics.Current flows somehow ("no spiders") causing the sheet to move, causing back emf - an inductive field (inductance), if I remember correctly. I don't "think" this is any different from a coil, but I am getting old...

Subject: Re: How is this possible?
Posted by wunhuanglo on Sat, 20 Mar 2004 19:21:03 GMT
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I'm not sure what you mean. How is it possible for a load to be purely resistive? I dunno. I've seen that claim somewhere in the past, but I can remember for the life of me what sort of technology was involved.I wasn't trying to say a conventional cone speaker is a purely resistive load - I was trying to say how it contrasts with that concept.

Subject: Re: How is this possible?
Posted by Wayne Parham on Sun, 21 Mar 2004 03:27:26 GMT
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Inductors are coils, and when energy is applied to them, voltage rises across the coil before current flow increases through it. Capacitors are two plates separated by an insulator and when energy is applied to them, current passes before voltage rises across the plates. This is why there is a phase shift associated with these two reactive components, and it is also why they are in opposite directions. A resistor has voltage and current rise at the same time when energy is applied, so phase is zero.

Subject: Re: How is this possible?
Posted by Dean Kukral on Sun, 21 Mar 2004 04:29:25 GMT
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If I remember my physics [and it has been a long time :( ], I don't think that "Inductors are coils," is quite true. ("Coils are inductors," is correct.) Any time current flows into a wire, a magnetic field develops around the wire. The only difference between a straight wire and a curved wire is that the curved wire concentrates the magnetic field and provides mutual self-inductance to the wires which are now side by side. That is why I said that I don't see how a changing current in a wire (or whatever they use?) can be a purely resistive load. Perhaps the inductance is considered negligible compared to that of a voice coil.

Subject: Re: How is this possible?
Posted by Wayne Parham on Sun, 21 Mar 2004 04:46:09 GMT
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Yep, you're right. I oversimplified. Every conductor has an inductance because of the magnetic field that is induced.