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Subject: Why are air core coils?

Posted by [cantur](#) on Tue, 03 Jun 2008 16:07:19 GMT

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Somebody told me air core is better than iron core coil. Is that true and if so, why?

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Subject: Re: Why are air core coils?

Posted by [Wayne Parham](#) on Thu, 05 Jun 2008 21:13:21 GMT

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Iron core coils suffer from hysteresis and can be saturated, air core coils don't. As a result, an air core coil offers better performance in terms of linearity and therefore distortion. But for large inductance values, laminated steel cores are sometimes attractive because air core coils would need to be much larger, requiring many more turns of the conductive wire or foil.

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