Subject: New Toroid Output Transformer Marketed?
Posted by positron on Thu, 21 Mar 2024 04:14:51 GMT
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I see Piltron does not manufacture audio output transformers anymore.
I have heard that the weakness of the OPTs was the small core, thus
saturation due to imbalance of output tube plate currents.

I remember seeing the impressive high frequency response of their transformers.

What do you think of the idea of OPTs with much more core material
to over come the bass weakness?

There would probably be some loss of high frequency response,
but from 200khz to 150khz or even 100khz, would that be a problem?

Do you think there would be a market?

cheers

pos

Subject: Re: New Toroid Output Transformer Marketed?
Posted by gofar99 on Fri, 22 Mar 2024 02:56:42 GMT
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Hi Pos, hummm. 200KHZ , 150, 100 why and I really would rather audio trannies in my designs not reach that far. As is most seem to hit about 70K at only a minor drop from pass band. I actually design into the amps a frequency limiting measure to prevent them form going past about 35K. IMO only noise and possible EMI out above that. When I order custom trannies (most of my projects have them) I specify flat pass band from 20HZ to 25KHZ with a smooth roll off one octave on either end. Must be able to handle that at the full output that I specify and not saturate at the currents I plan on using. Thus far this has been a successful concept as the amps using them measure to those limits. To be sure the math and design issues are better left to the pros. Also the trannies I get this way are significantly larger, heavier and to a certain extent more costly. The weight and size are roughly double a typical off the shelf trannies. I do not use toroids for outputs, only standard designed ones.

Subject: Re: New Toroid Output Transformer Marketed?
Posted by positron on Fri, 22 Mar 2024 15:53:34 GMT
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Pos: I put in the paragraphs for easier reading.

gofar99 wrote on Thu, 21 March 2024 21:56Hi Pos, hummm. 200KHZ , 150, 100 why and I really would rather audio trannies in my designs not reach that far. As is most seem to hit about 70K at only a minor drop from pass band.

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Hi Go,

I just mention the high frequency response (FR) because of the extremely tight coupling/low leakage reactance toroids are known for.

As you have, one could certainly limit the high frequency response (FR) other ways, such as a simple low pass filter, and yet allow for other who wish the higher FR as well.

Tighter coupling, higher FR means more inner detail. I can't remember how much, but back in the 1980s when I worked in the -1db at 200khz vs -1db at 150khz range, and there was definitely a sonic difference.

I don't think there would be any problem making the toroid outputs double the weight of typical toroids I have seen. I wanted better low end anyway, and a larger core would be nice.

It is just a thought, and would appreciate more input from anyone.

cheers and thanks Go.

pos