Subject: Say John 42
Posted by Manualblock on Fri, 11 Aug 2006 22:58:37 GMT
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Anynews on the transformer modeling experiment? How do you get the sec resistance figure?

Subject: Re: Say John 42
Posted by Forty2wo on Thu, 17 Aug 2006 04:54:10 GMT
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Hi M, I am on a big project for work. I did model a very low DCR transformer I had on hand. I used the tool in PSU2. And direct measurements. Came out to 11.8 ohms. And falls into the don't want to drop on my foot category This with the set value filter I proposed, I don't have it here, 10U-10h-50U maybe? Fed this into a stepped load, 100ma-150ma. And there was a fair amount of ringing. Increasing the R value of the transformer would reduce the ringing. So that is good right…Looking a bit deeper, if you reduce the trans+filter to a basic LCR circuit. You have a tank circuit with a certain 'Q', if you increases the resistive component, be it higher trans resistance, choke resistance, or whatever . you reduce the Q and the ringing . So is this the way to go? I don't think so, it smacks of one dimensional design.More on this later. I did not want to leave you hanging but I am just too busy to do more right now Try picting a low R transformer and change the filter for best result…John

Subject: Re: Say John 42
Posted by Manualblock on Thu, 17 Aug 2006 13:04:19 GMT
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Thanks John; thats plenty. I also found Duncanamps Forum for PSUD users so that is helping me.

Subject: PS options
Posted by PakProtector on Sat, 19 Aug 2006 02:24:46 GMT
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Hey_Hey!!!,Another option would be to go CLCLC and drop the inductance of the 'L' stages. Say to 2 Hy each, experiment with capacitance values and see where the final ripple comes equal or perhaps just less than a single stage goes. Keep in mind that it is not likely that the 'shape' of the resulting ripple voltage is also going to be different with a multi-stage filter compared to a single.It is my opinion that keeping the DCR low is a good idea. It isn't possible to do it 'all else kept the

same' so it shouldn't follow that PS performance is tied to a the value of a single parameter. Either way, examine the performance of the filter as component values change around a reasonable centre, or preliminary value. cheers,Douglas