Hi Everyone

Here are some relevant details and specifications for the transformers for a group buy.

Tube buffer amp
B+ is at 1% reg and .085 VDC above the target with a 17ma AC load on the transformer, so that is going to be quite stiff with the AC swing currents from audio, pulses of which will drive positive grid current no matter what you do. The rectifier filament has almost 2/10 of a volt before nominal so even the most massive requirements will not drag it below 4.8 volts since it is a 5% reg winding. The driver tube filament is less than a 1% reg so it is very unlikely that anything short of catastrophic failure will alter it's voltage. And, the core is running at 10 kilogauss, approximately 2/3 of it's potential and nicely into the linear permeability range so that sudden power drains will not be met with sagging joule responses. I think it will do.

To get substantially better performance would require increasing by two core sizes and the benefit wold be a drop in DCR for the B+, which is already at 1% reg, a drop in primary DCR, which is already running at 30 degrees C rise in a 20 C ambient and a change in the 5AR4 filament reg to 1%, for no other reason than meanness. Flux density would drop to 8 kilogauss, but the emission area would double and the net stray field would increase by 25%.

Overall this is probably the best balance, though I could add core stack to drop the flux density more while not increasing the emissions area by as much in % for a net gain in that realm of 10%. However the DCR and reg on the windings would be worse.

Basically, power transformers are the play ground of the mad.

Salas regulaor
The noise abatement will be 90 dB down at 400 Hz and above, sliding to 0 db at 70 Hz and below. I do intend to provide a copper shield around the coil and over the core to further reduce emittend field and there will be a full width copper shield in the secondary winding well, between the B+ / rectifier winding and the driver tube filament winding, that needs to be connected directly to service ground at the IEC connection. The outer shield will help to reduce stray capacitance from inserting noise into the secondary and also remove the most intrusive noise element, the coils, from the emitted field.It does not need to be grounded, but I will provide another direct to IEC wire for this purpose. This one you can play with a bit as it does not have any safety ground issues surrounding it as the internal shield most certainly does.

Dac buffer transformer
I actually have three categories of the things.
1.) As used by Michael Mardis in the original MagiDac. A low profile PCB mount device with 1 kZ of primary impedance supported by inductance.

$32 USD ea using M6 core or $45 ea using 48% nickle core, with an 8 week lead time

2.) As used by Michael Mardis for replacing Op Amps in Berringer DCX 2496 crossovers. A small 0.9 inch cube PCB mount device with 1 kZ of primary impedance supported by inductance, using 48% nickle core.
$50 USD with an 8 week lead time

3.) A line of upright, 2 inch tall, tab mounted with flying leads devices.
-A 600 Z ohm impedance match with inductance
using 48% nickle core $ 62 US each.
-B 1 kZ ohm impedance match with inductance
using 48% nickle core $ 62 US each.
-C 2 Kz ohm impedance match with inductance
using 48% nickle core $ 62 US each.
-D 2 Kz ohm impedance match with inductance
using 80% nickle core $ 74 US each.

The first choice for highest performance would be #3 -A for the 4398 DAC. The others in number three are quite good, with very low distortion and +14 db of head room over the 2.76 max VAC from any DAC I know of. I can provide 80% nickle for the other impedance matches, for the same price as #3 -D, but I have not designed nor tested them yet.

Number one is made for low profile needs, has very good performance in M6 and even better with nickle core.

Number 2 is sized and aimed at the DCX2496, has a bit more low end distortion, due to small size and has a + 10 db head room limit. Number 3 will fit in the DCX 2496 also, off in the left end, but there is just enough space to fit six of them, so a copper ground barrier would have to be woven between adjacent coil faces to kill cross talk.

For dac buffer duty in units with enough physical room, choice #3 is best. All of them will provide a minimum performance of -0.5 db from 20Hz to 40 kHz and distortion below 0.005% at + 10 db signal levels. My recommended model is -B as it will work with the widest range of devices. You need to know the size of the load resistor recommended for your particular Dac. If it is the typical 576 ohms, as for a Cirrus 4398, then either the -A or -B will work well.

Specs are

1.) chokes for tube buffer amp $40 each two needed
2 30H 200 Ohm chokes

2.)power transformer for buffer amp $90 each, two needed
Pri volts rms 120/ 60 hz with other voltages and frequencies easily available
Pri DCR 4.93 ohms

B+ 200.78 volts no load per half
DCR 43.24 and 42.15 ohms use the higher number for modeling
200.10 vac rms @12 ma AC loaded

Rect 5.43 vac rms
DCR 0.126 ohms
5.18 vac @ 1.9amps AC loaded

Filament 12.76 vac rms
DCR 0.632 ohms
12.62 vac CT @ 0.2 amps AC loaded

3.)power transformer for Salas regulaor $90 one needed
Pri volts rms 120/ 60 hz with other voltages and frequencies easily available
Pri DCR 14.7 ohms
Sec volts 6X 9.11 vac @ 200ma AC loaded
Sec DCR 0.63 ohms each winding

4.) Dac buffer transformer $62 each two needed
Pri volts 2.0vac rms nominal +14 db headroom 20 Hz to 20kHz +0 -0.5db
Pri DCR 190 ohms
Pri Impedance 600 ohms (#3 -A for 4398 DAC)
Sec 1 to 1 output

I am not allowed to offer anything better than 8 weeks to shipment from payment. Payment must be made before we begin production and I do garuntee you will recieve your parts. You can pay either through Pay Pal , with a 4% added for their fees or a chaeck drawn on a US bank. We will bill you for your exact freight charges when we know them and would ask that you reimburse us for that amount once your parts are in your hands and are in good condition.

The Pay Pal edress is hpurvine@gmail.com

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You do not have to order all of the above devices to participate.

Bud