

DDDAC 1794 NOS

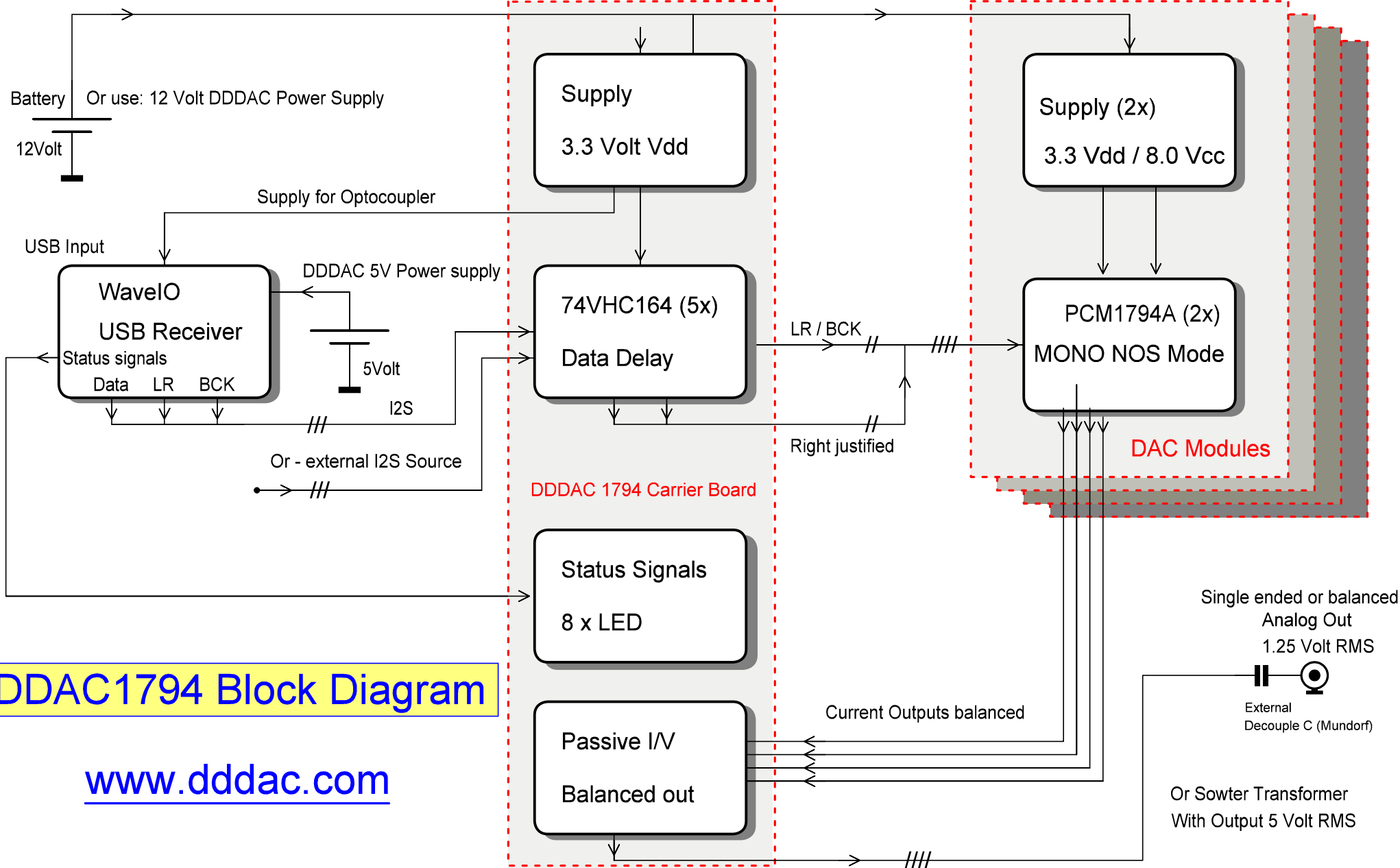
A Modular DAC,
based on PCM1794
and USB WaveIO,
Input 192kHz / 24bit

By Doede Douma

Version 3.0

Updated November 22nd, 2012

<http://www.dddac.com/>



DDDAC1794 Block Diagram

www.dddac.com

Notes:

Data delay is needed to convert I2S data into right justified datastream to work with "no digital filter" mode

Datastream must be delayed by 7 clock cycles (31 - 24)

Left Channel must be delayed another 32 clock cycles to align left and right channel sample

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Update: 14-11-2012

Author: Doede Douma

Revision: 2.0

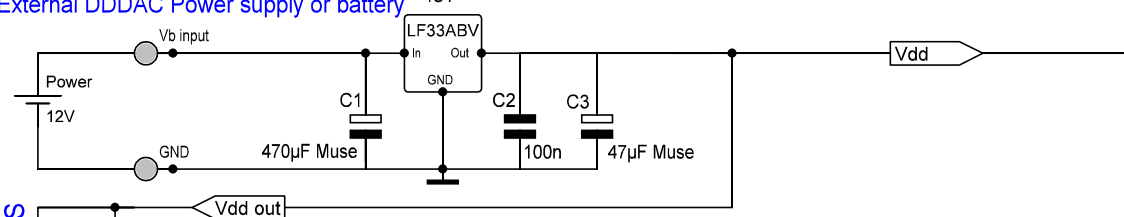
Built:
YES

Design ready:
YES

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External DDDAC Power supply or battery

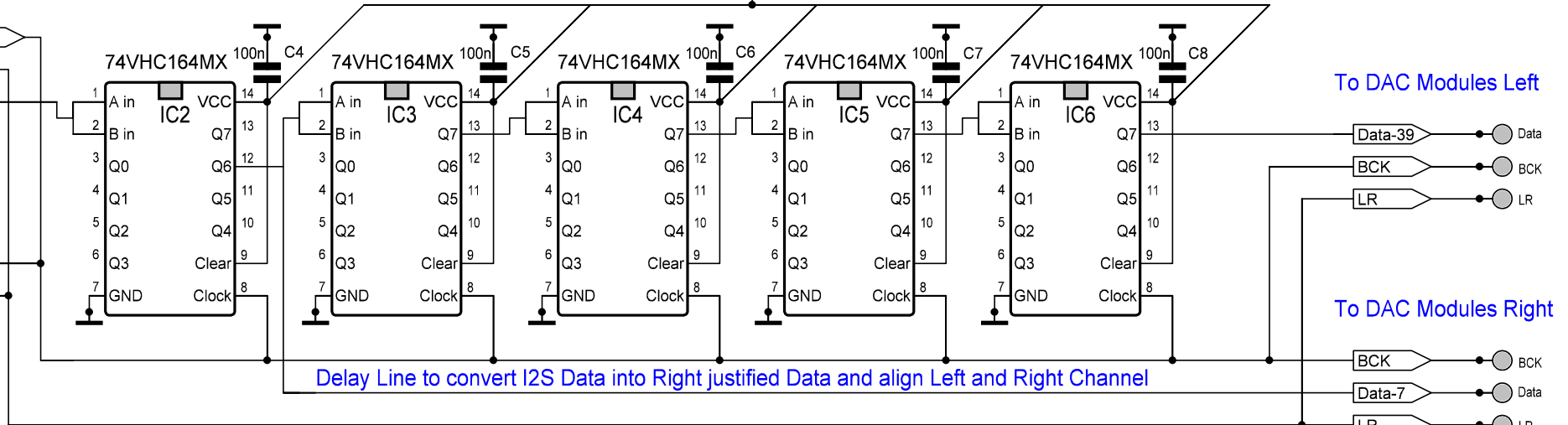
IC1



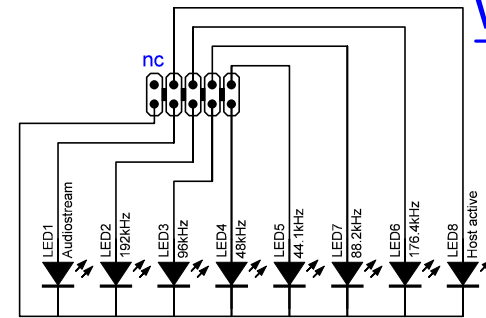
DDDAC1794 Mainboard

USB Receiver WaveIO - I2S

Other I2S Input



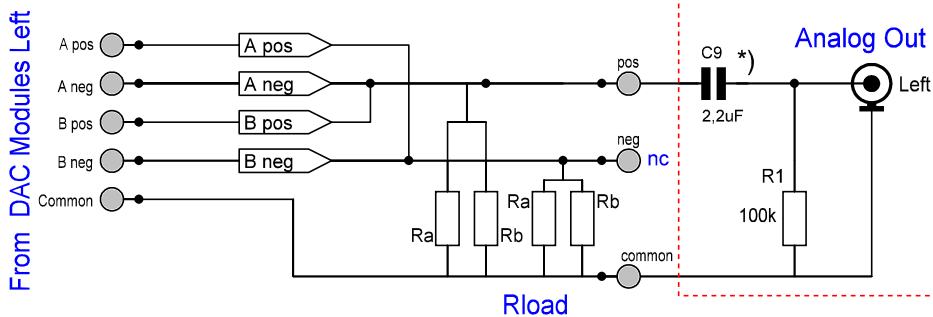
LED Pin Header



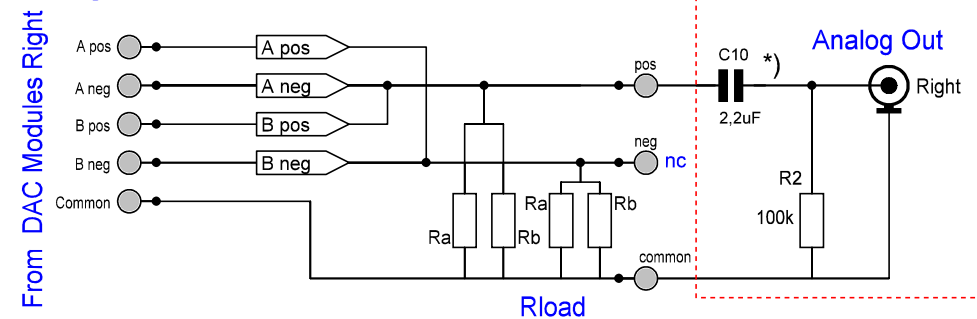
www.dddac.com

Modules	Ra	Rb
1	133	-
2	68	-
3	133	68
4	68	68

Analog Out alternative Sowter Transformer



Analog Out alternative Sowter Transformer



Notes:

Rload depends on number of DAC Modules being used

$Rload = 134 / \text{number of DAC Modules}$

Rload can be combined on PCB by paralleling 2 resistors - see table at top right corner

Output Capacitor should always be changed to one of own personal choice ! This is the best tweak possible

*) DDDAC personal choice is 2,2µF Mundorf Silver/Gold - Oil

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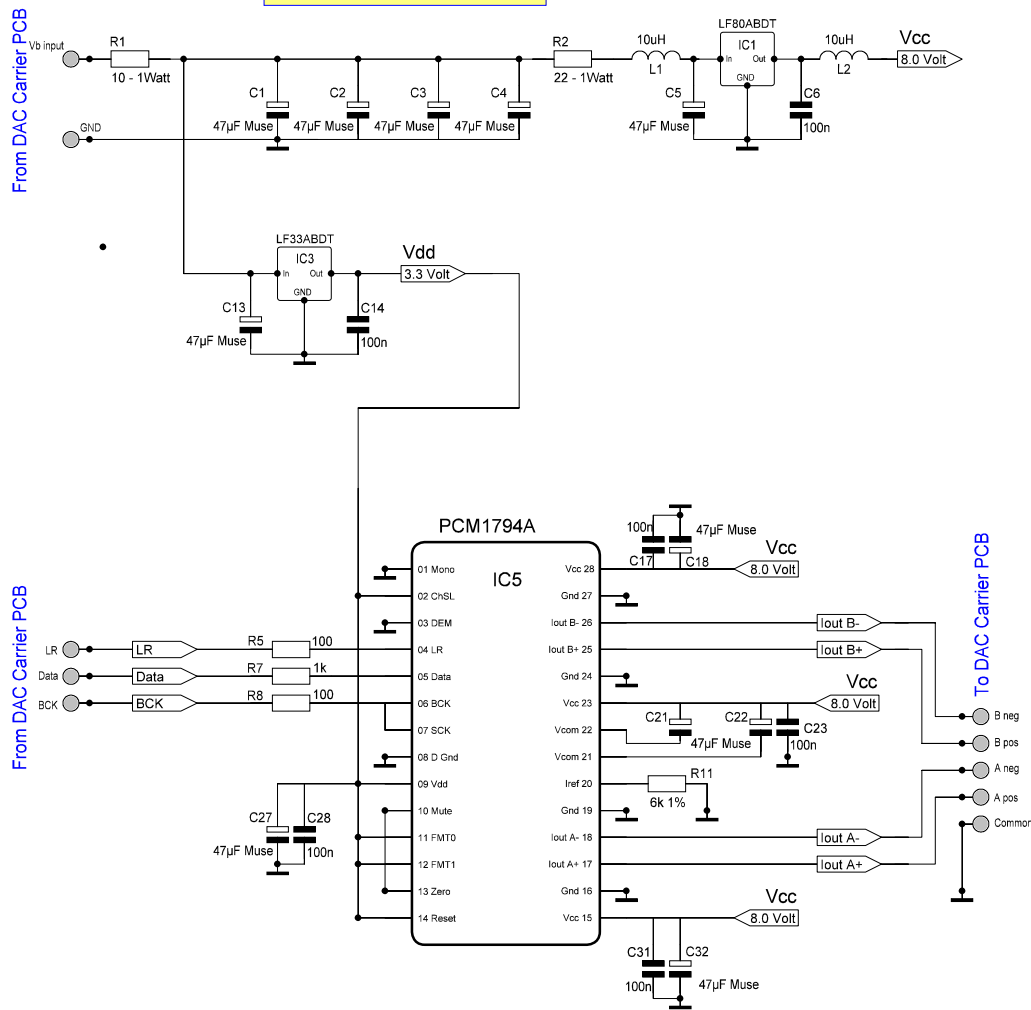
Revision: 2.0

Built:
YES

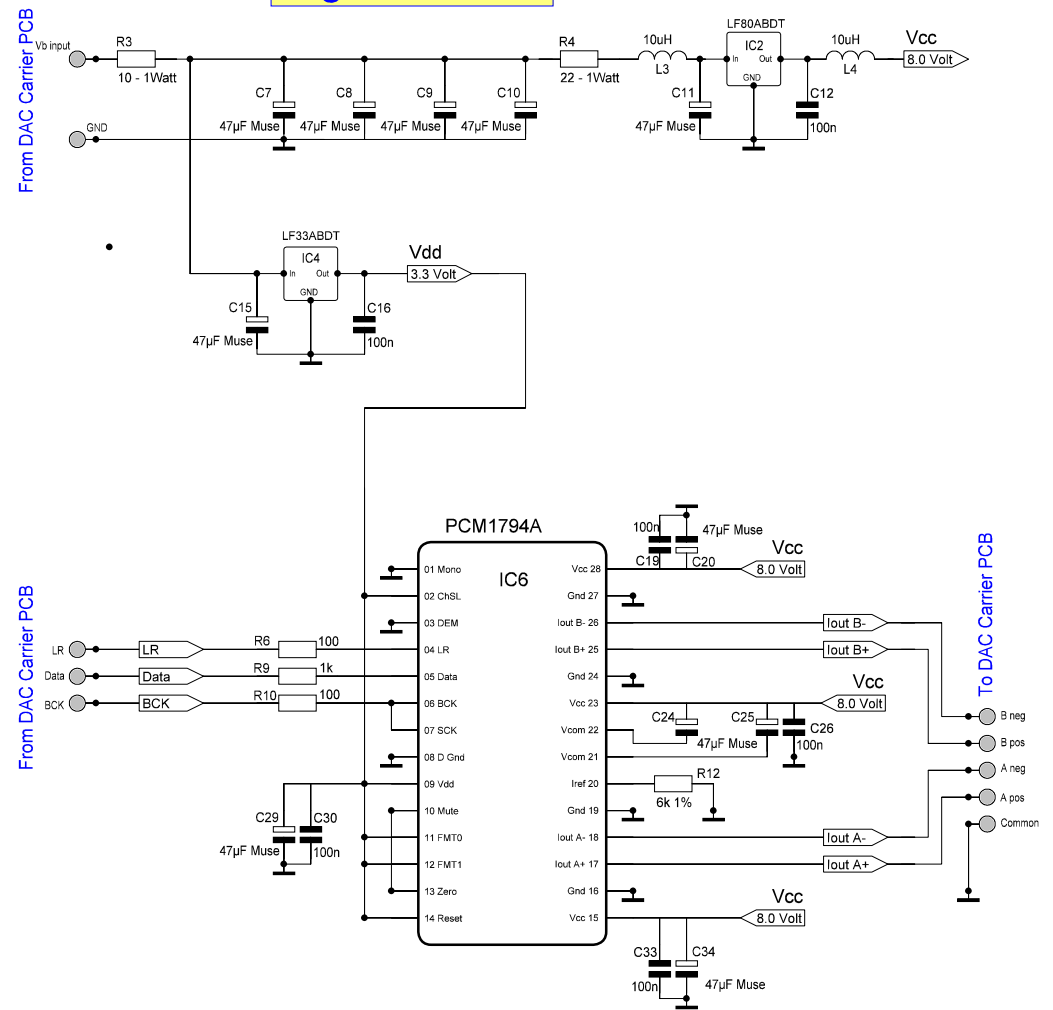
Design ready:
YES

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Left Channel



Right Channel



Groundplanes are separated

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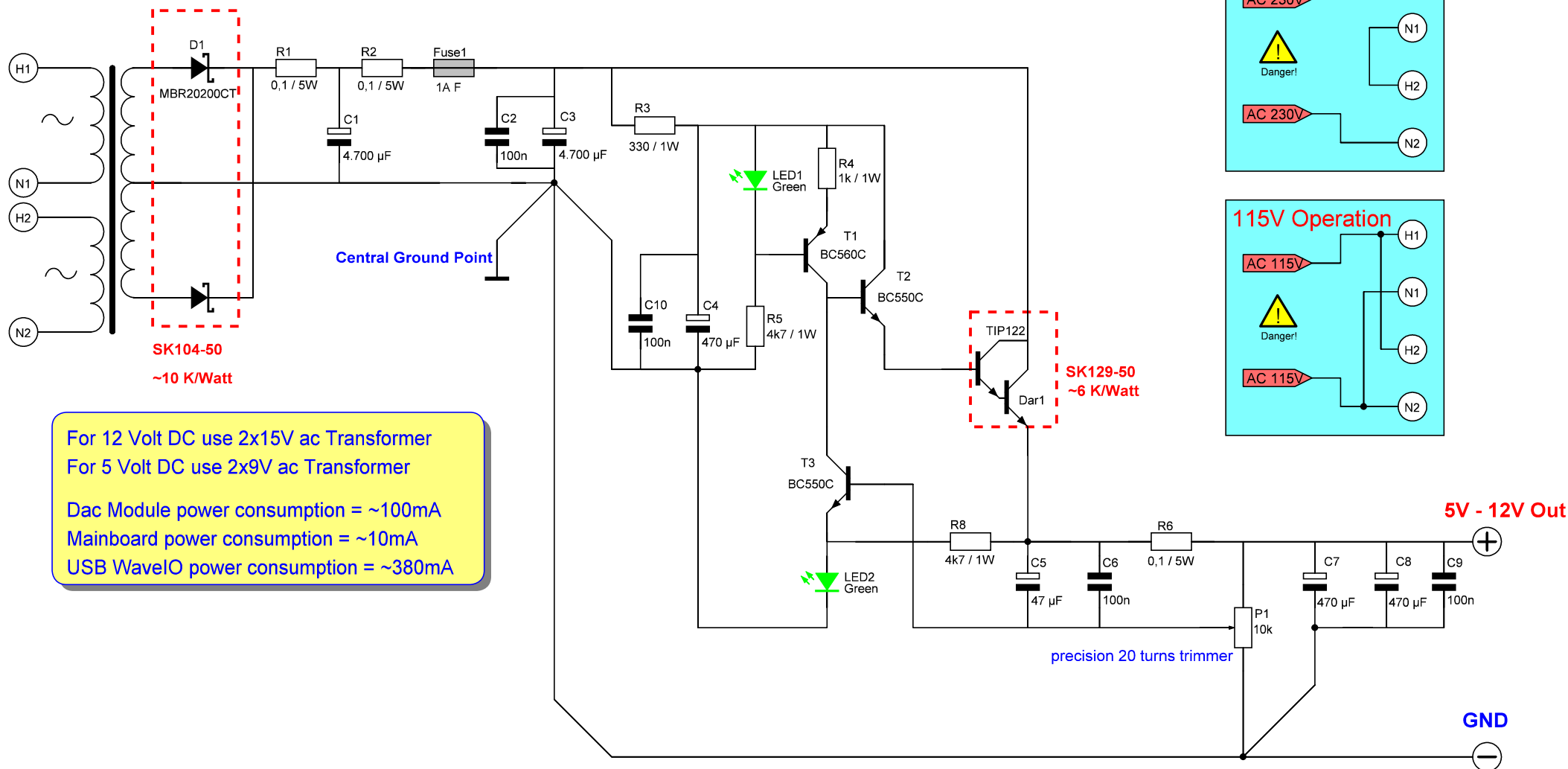
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DDDAC1794 Power Supply 5V / 12V 1A

www.dddac.com

Tr / 25VA

2 x9V or 2x15V



Notes:

Use Trimmer P1 to adjust output at 5.0 Volt or 12 Volt

Actual Output current is limited by Fuse and rating of Transformer

47uF and 470uF are Nichicon Muze Audio Grade KZ series Capacitors - (25 or 50 Volts)

4.700uF are Nichicon Long Life Capacitors. Series HE (25 Volts)

DDDAC 1794 NOS DAC

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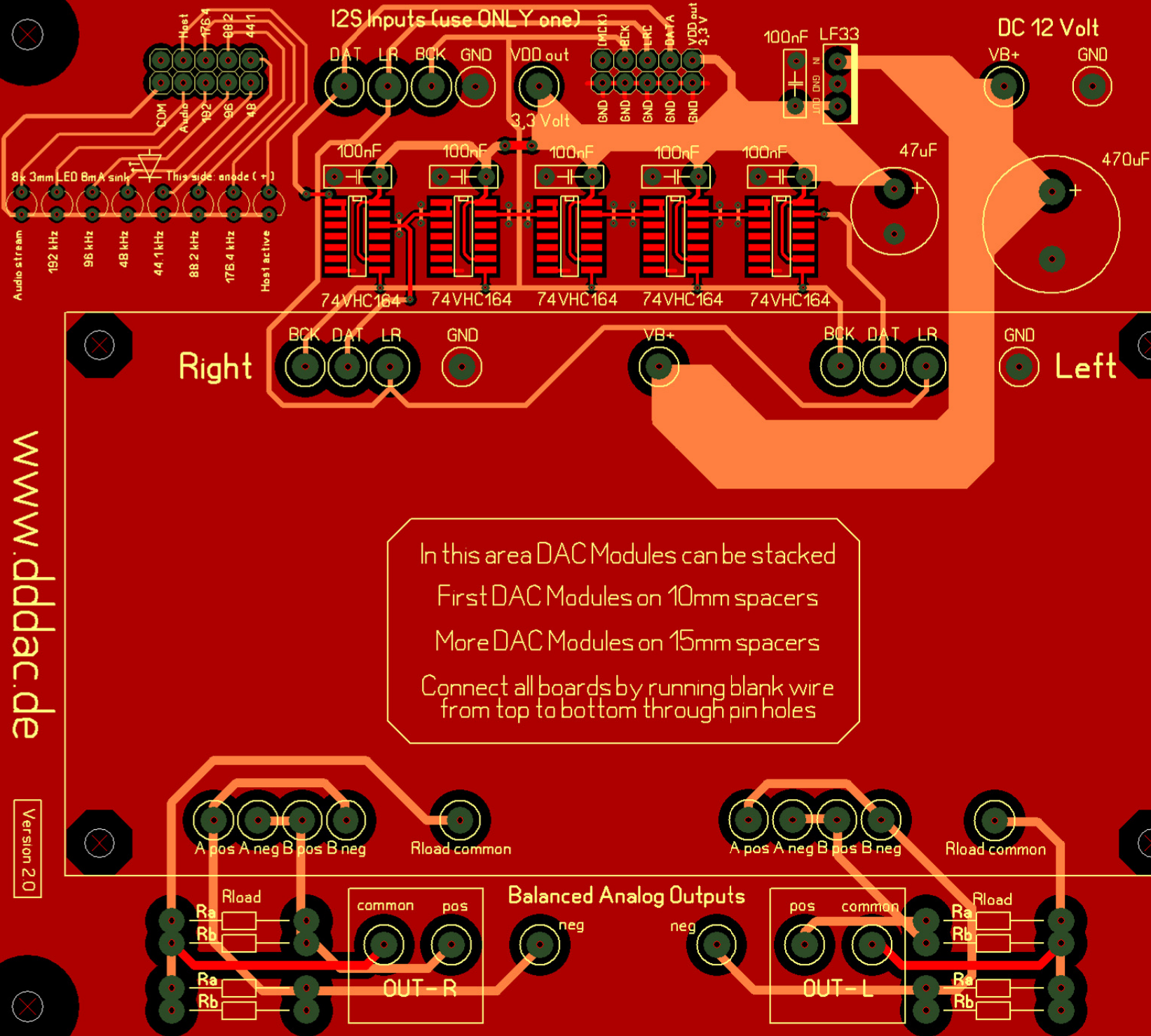
Built:
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Design ready:
YES

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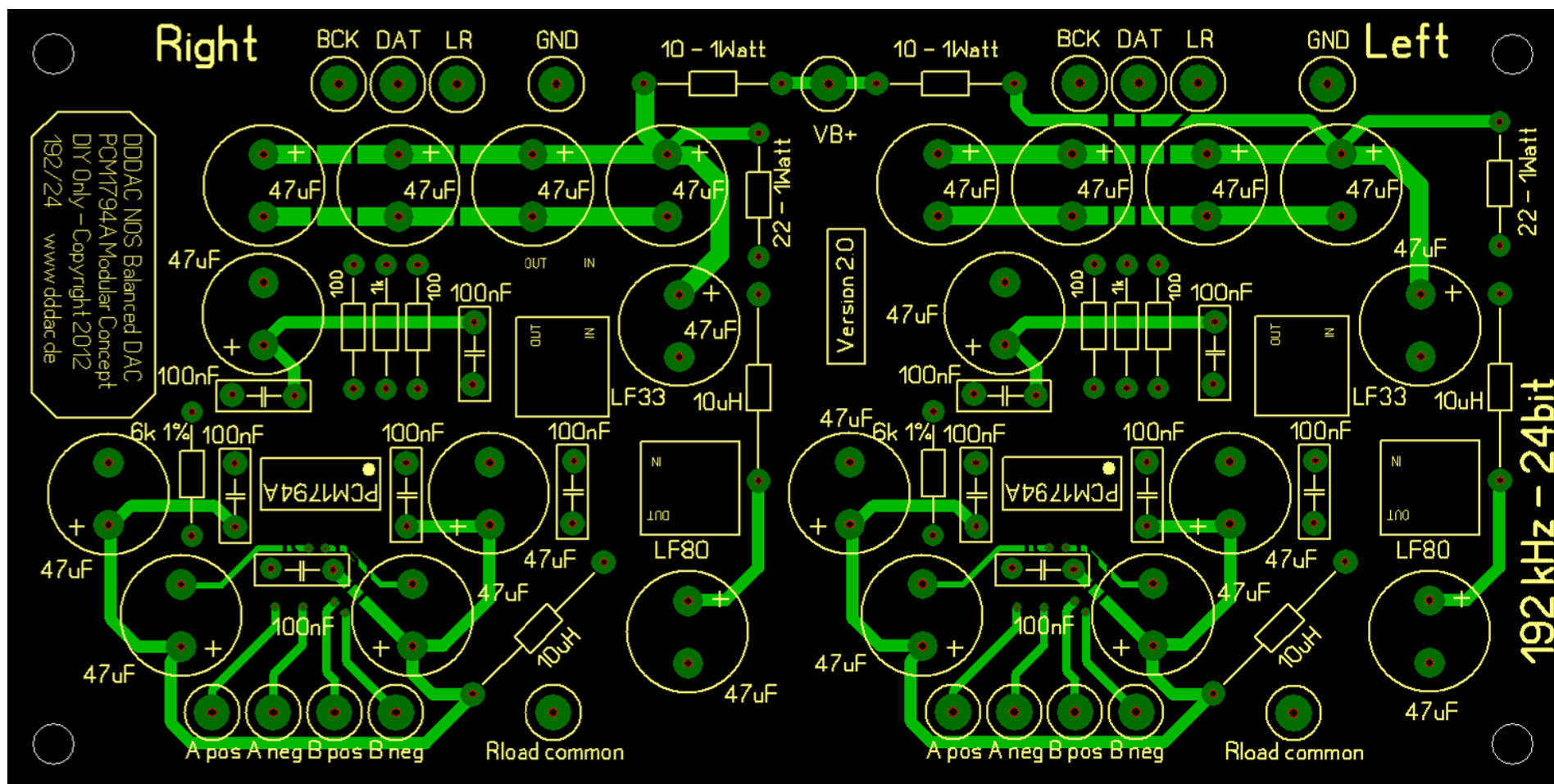
Version 2.0

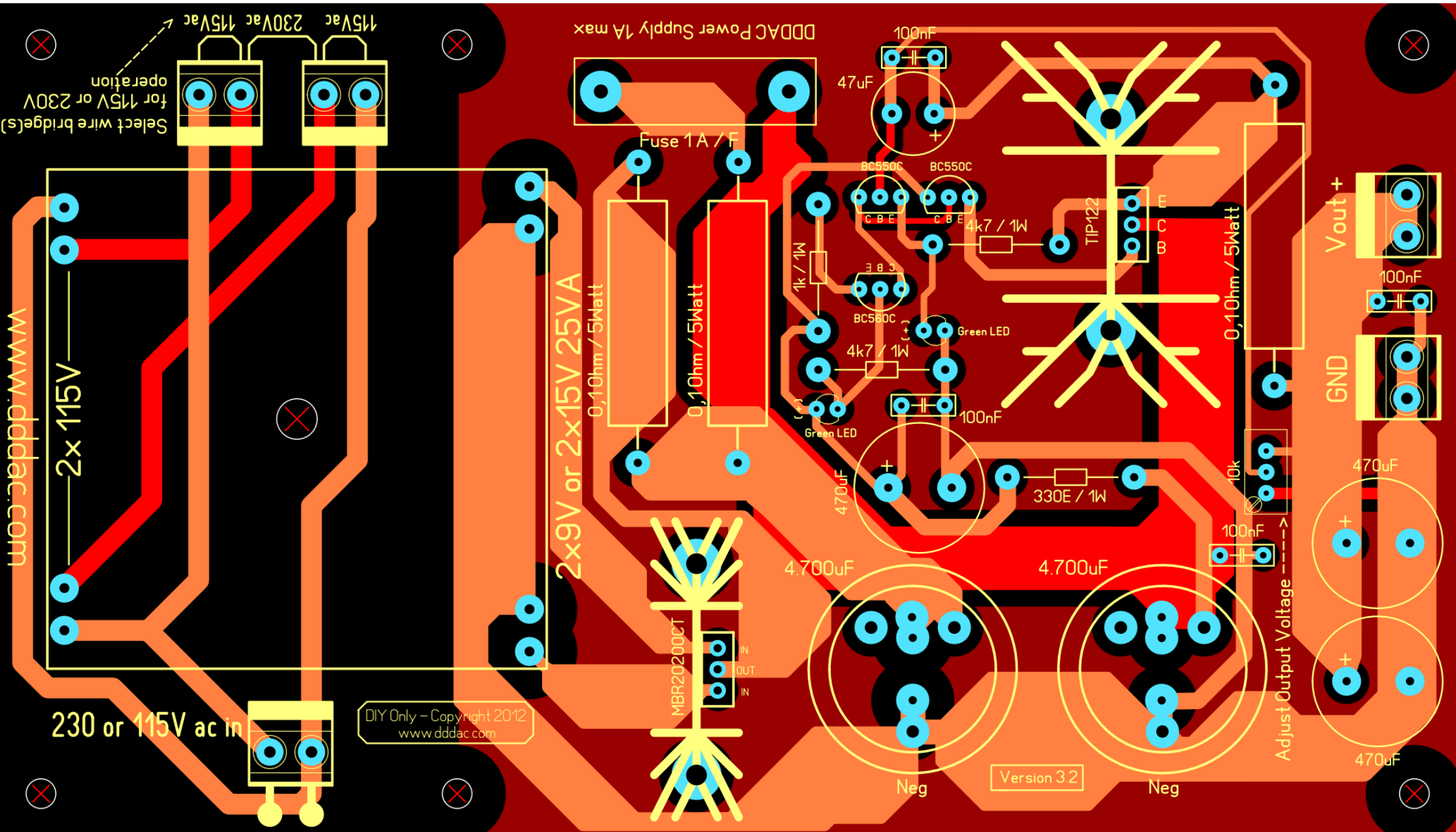


In this area DAC Modules can be stacked
First DAC Modules on 10mm spacers
More DAC Modules on 15mm spacers
Connect all boards by running blank wire
from top to bottom through pin holes

DDDAC NOS Balanced DAC
PCM1794A Modular Concept
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DDDAC 1794 Motherboard





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