

DDDAC 2000

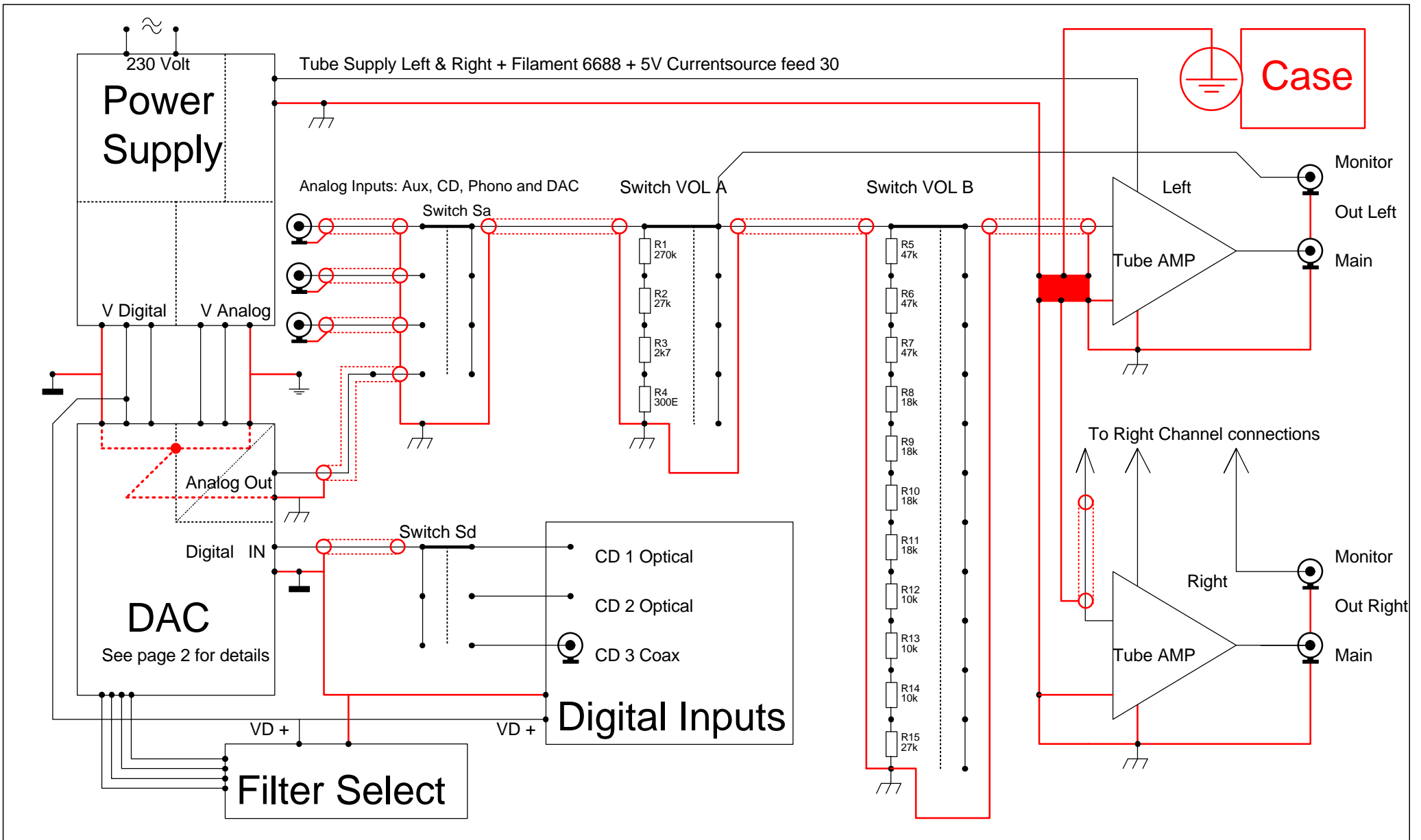
Digital to Analog Converter




And

Tube Line AMP

By Doede Douma
Version 1.0 Update December 14 2000

www.dddac.de



-  Analog Ground Line AMP
-  Analog Ground DAC
-  Digital Ground DAC

Switch VOL A: Pre Volume Range 0dB, -20dB, -40dB, -60dB

Switch VOL B: Volume Range 0dB, -2dB, -4dB, -6dB, -8dB, -9dB, -11dB, -14dB, -15dB, -17dB, -20dB, -99dB

DDDAC 2000, Block Diagram

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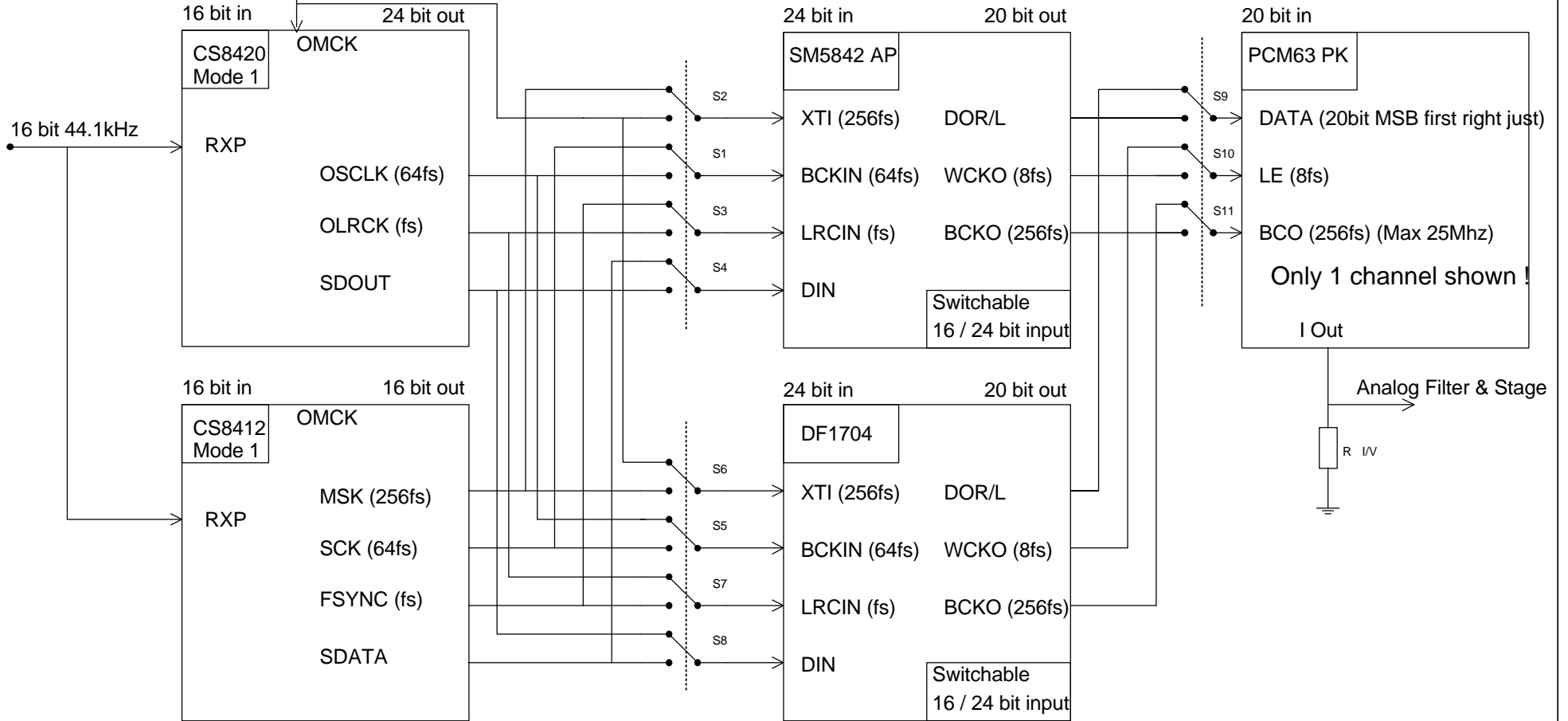
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XClock Oscillator
 256 x fs
 fs = 44.1 - 50 kHz

| fs | 8 fs freq | 64 fs freq | 256 fs freq |
|--------------|------------|------------|-------------|
| 44.1 kHz | 352,8Hz | 2.8224 MHz | 11.2896 MHz |
| 50.78125 kHz | 406.25 kHz | 3.2500 MHz | 13.0000 MHz |



At Clockspeeds of 256fs clocked data is 32 bit wide

The 3 switchbanks allows all possible combinations of receivers and digital filters

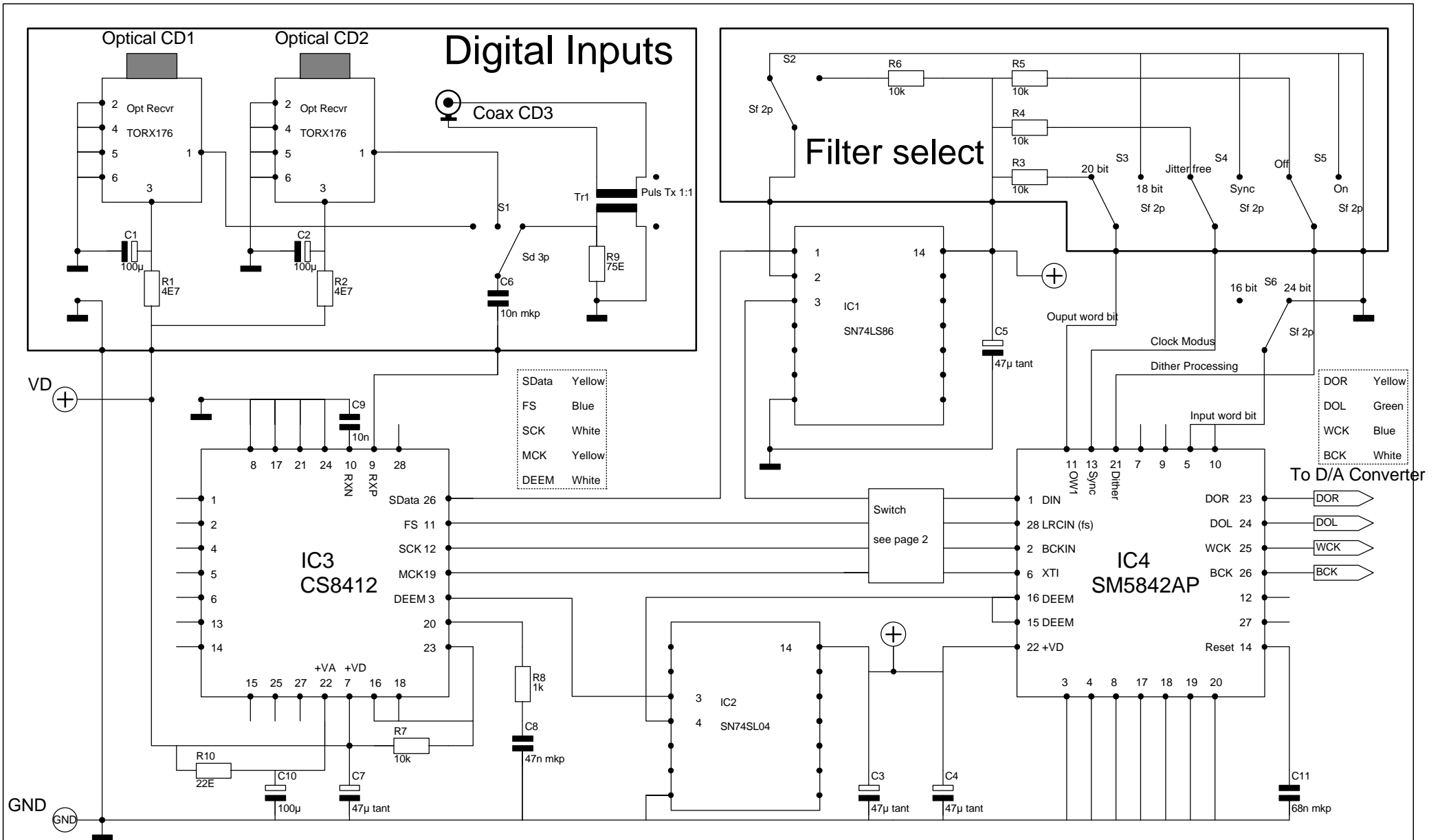
DDDAC 2000, DAC Basics

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- S2: Invert Data
- S3: 18 bit / 20 bit
- S4: Jitter Free / Sync
- S5: Dither on / off
- S6: 16 bit / 20 bit

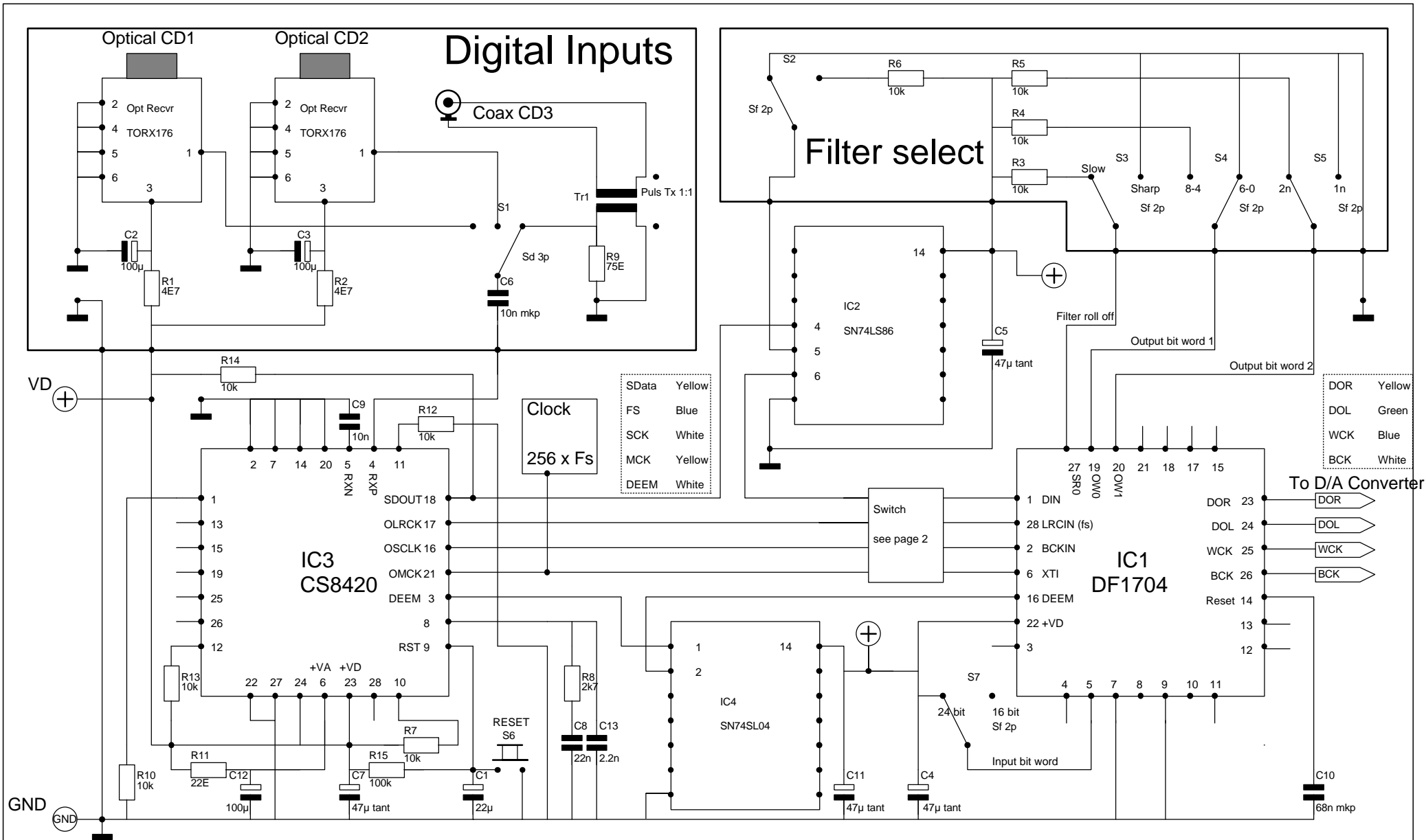
DDDAC 2000, Digital Filter 1

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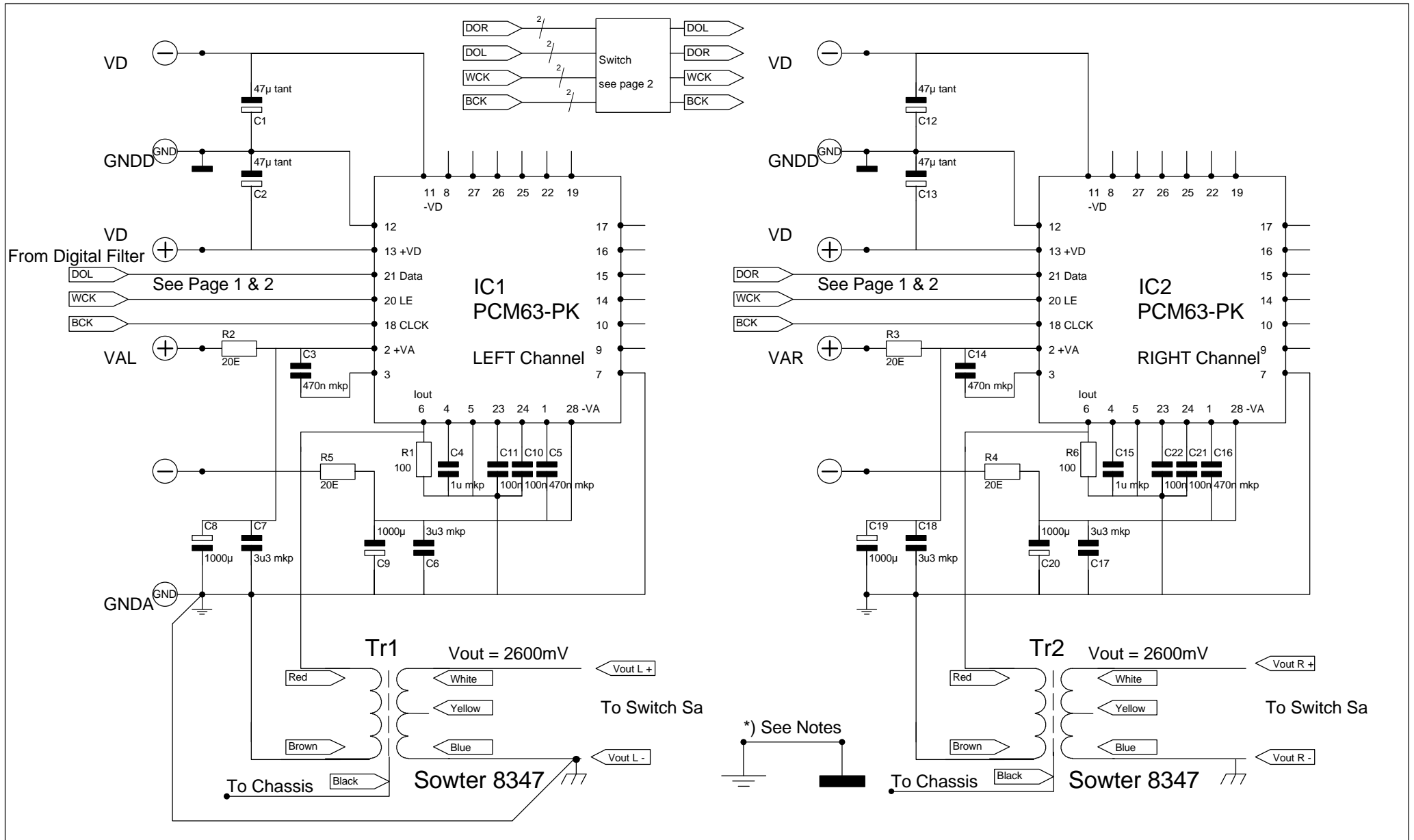




S2: Invert Data
 S3: Sharp / Slow Filter Roll Off
 S4: 6-0 / 8-4 Bit Output
 S5: 1n / 2n Bit Output

S6: RESET
 S7: 16 bit / 24 bit

DDDAC 2000, Digital Filter 2

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 Digital Ground
  Analog Ground Line AMP

 Analog Ground

*) Connect both grounds at one point close to PCM63P

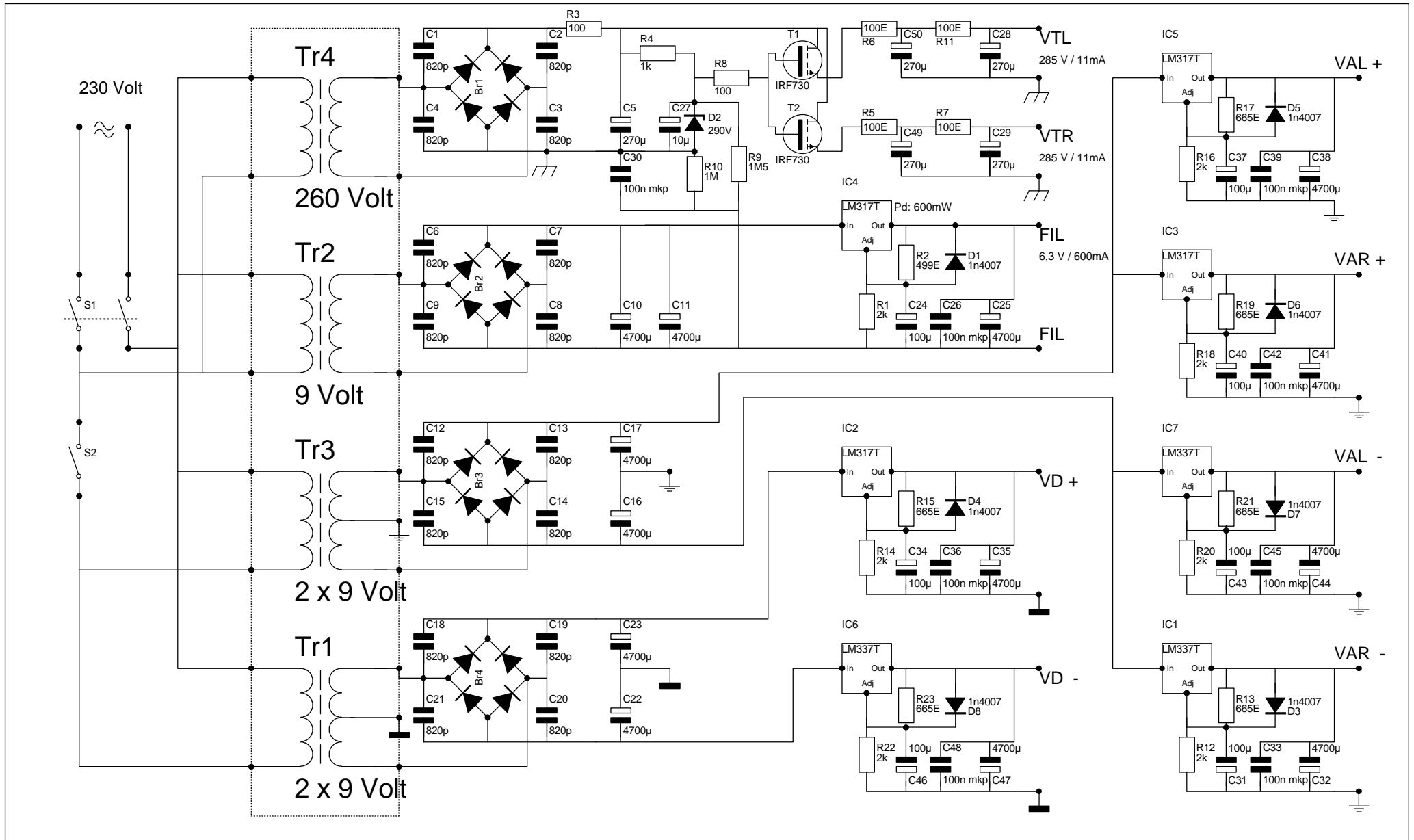
DDDAC 2000, DAC Stage




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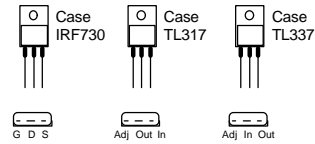
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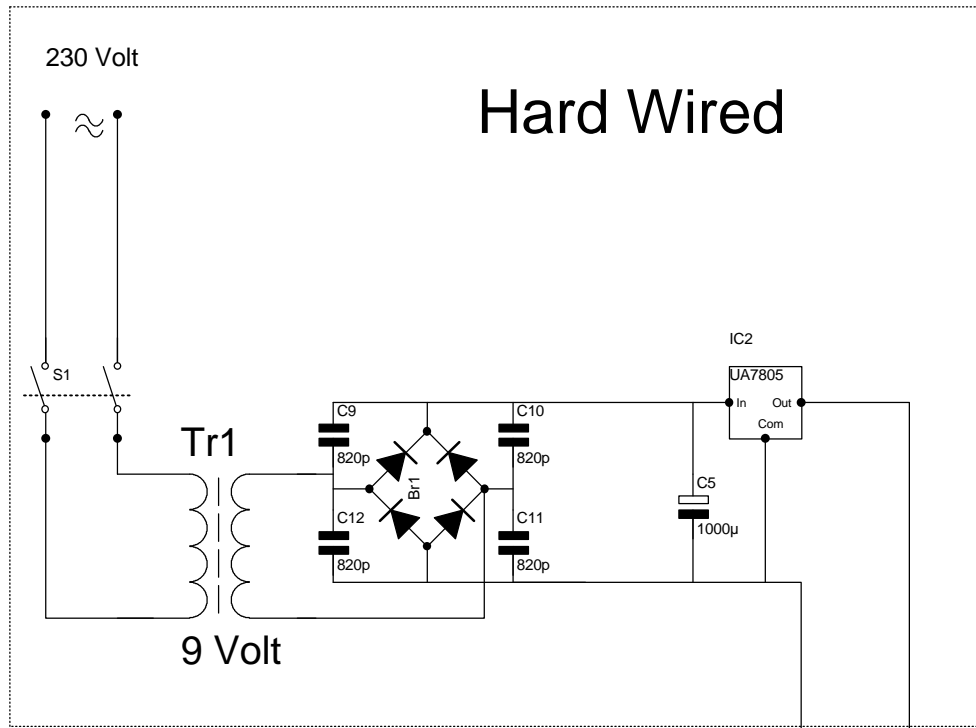
-  Analog Ground Line AMP
-  Analog Ground DAC
-  Digital Ground DAC

VTL: 285 Volt
 FIL: 6,3 Volt
 VD/VA: 5,0 Volt

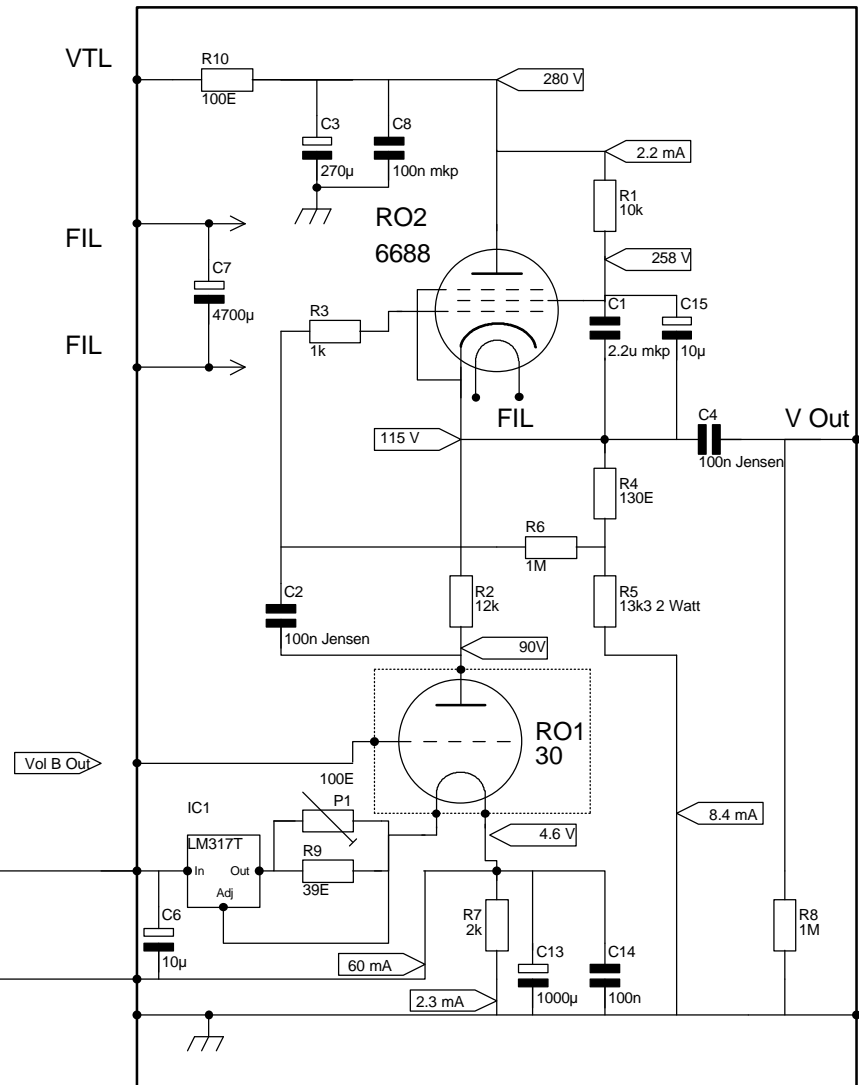


DDDAC 2000, Power Supply

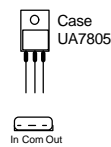
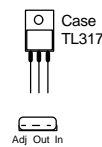
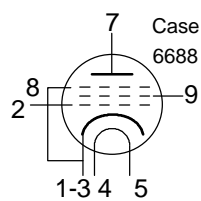
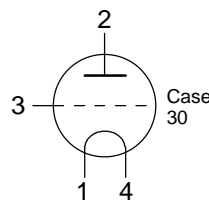
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Hard Wired

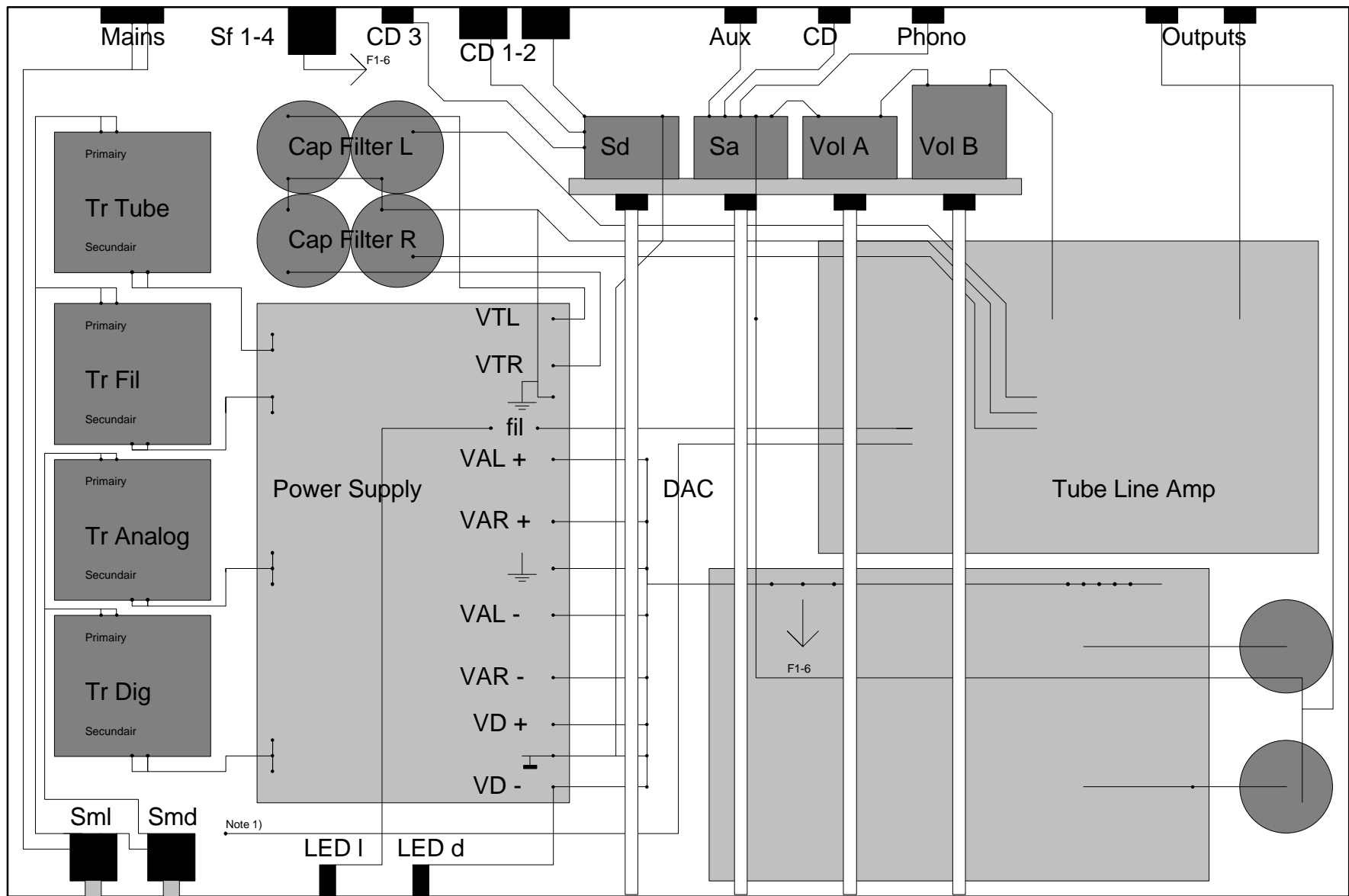


Right Channel identical to Left Channel. All parts x 2
 NB: Filament supply is floating !!
 Adjust Filament at 2.00 Volt with P1



DDDAC 2000, Tube Line AMP

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Note 1): Hardwire 2 Currentsource Transformers above other transformers

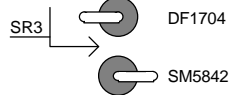
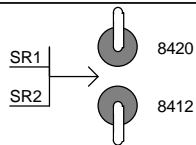
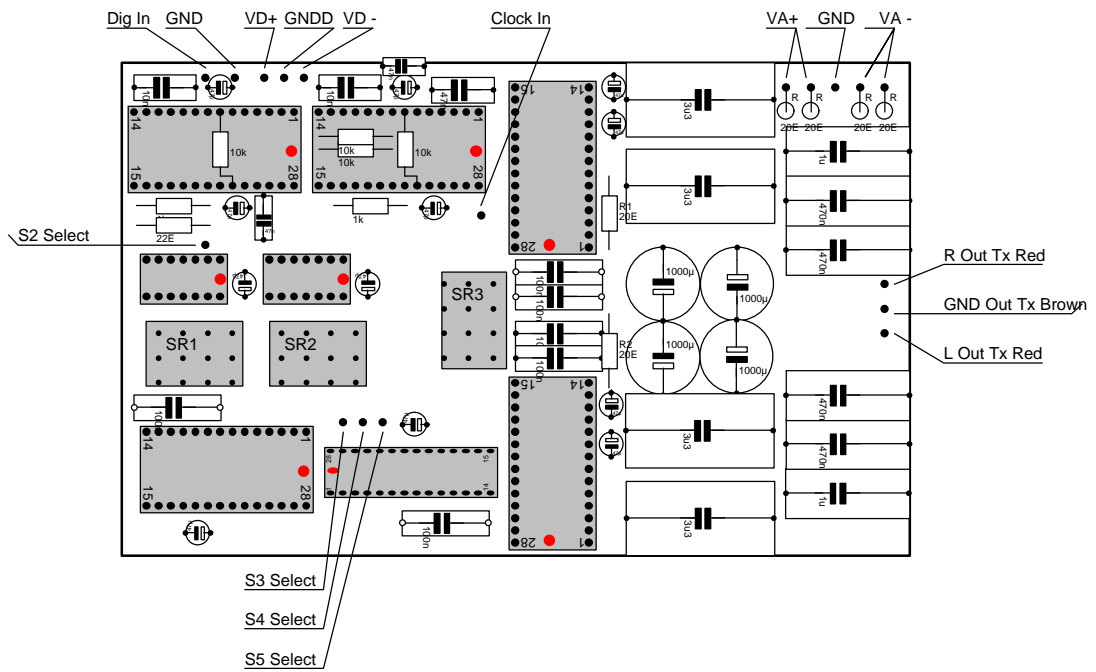
DDDAC 2000, Case Overview

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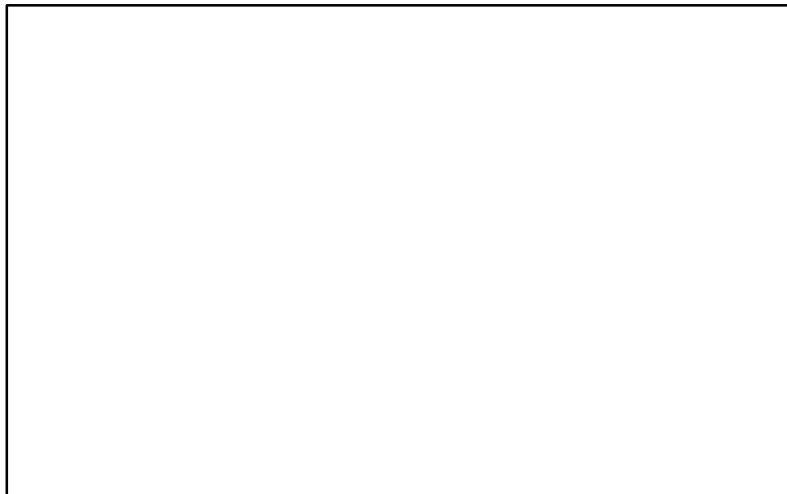
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DDDAC 2000, DAC PCB

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DDDAC 2000, Tube Stage P1

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