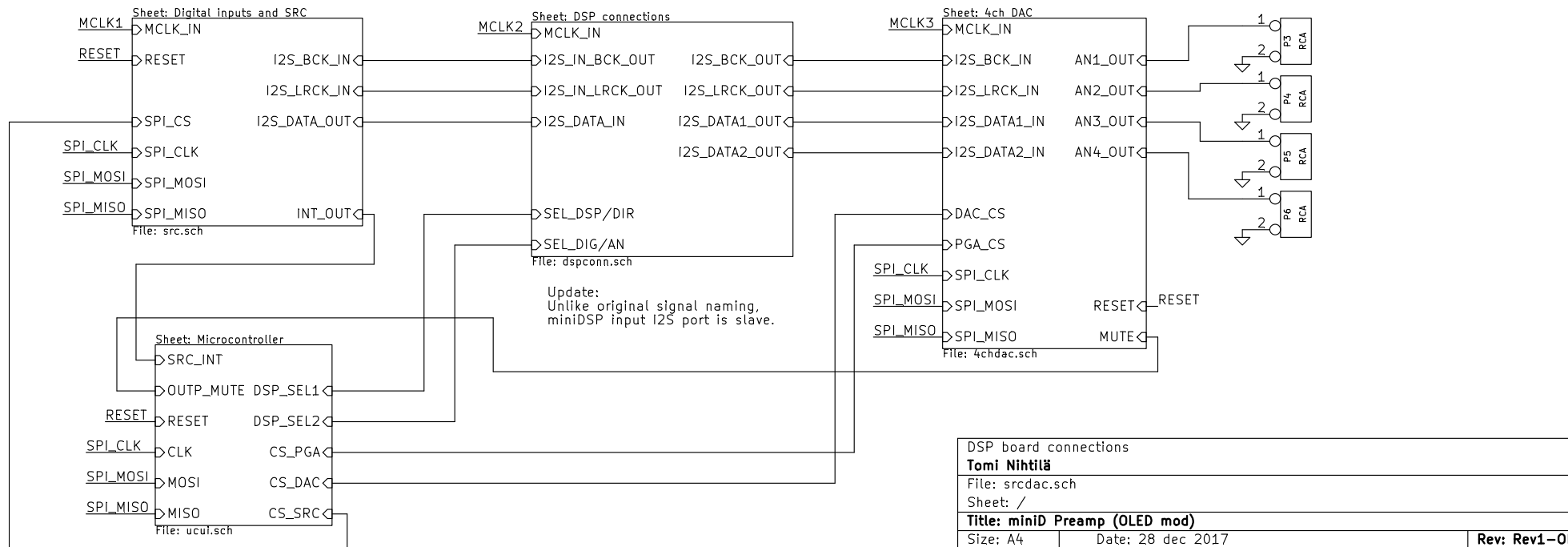
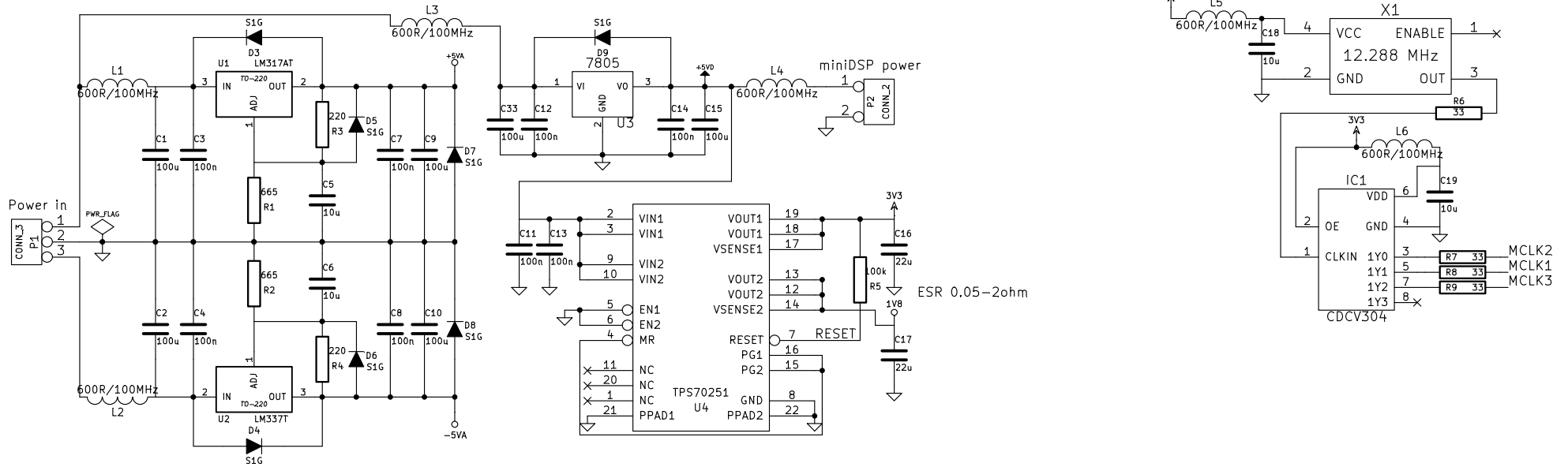
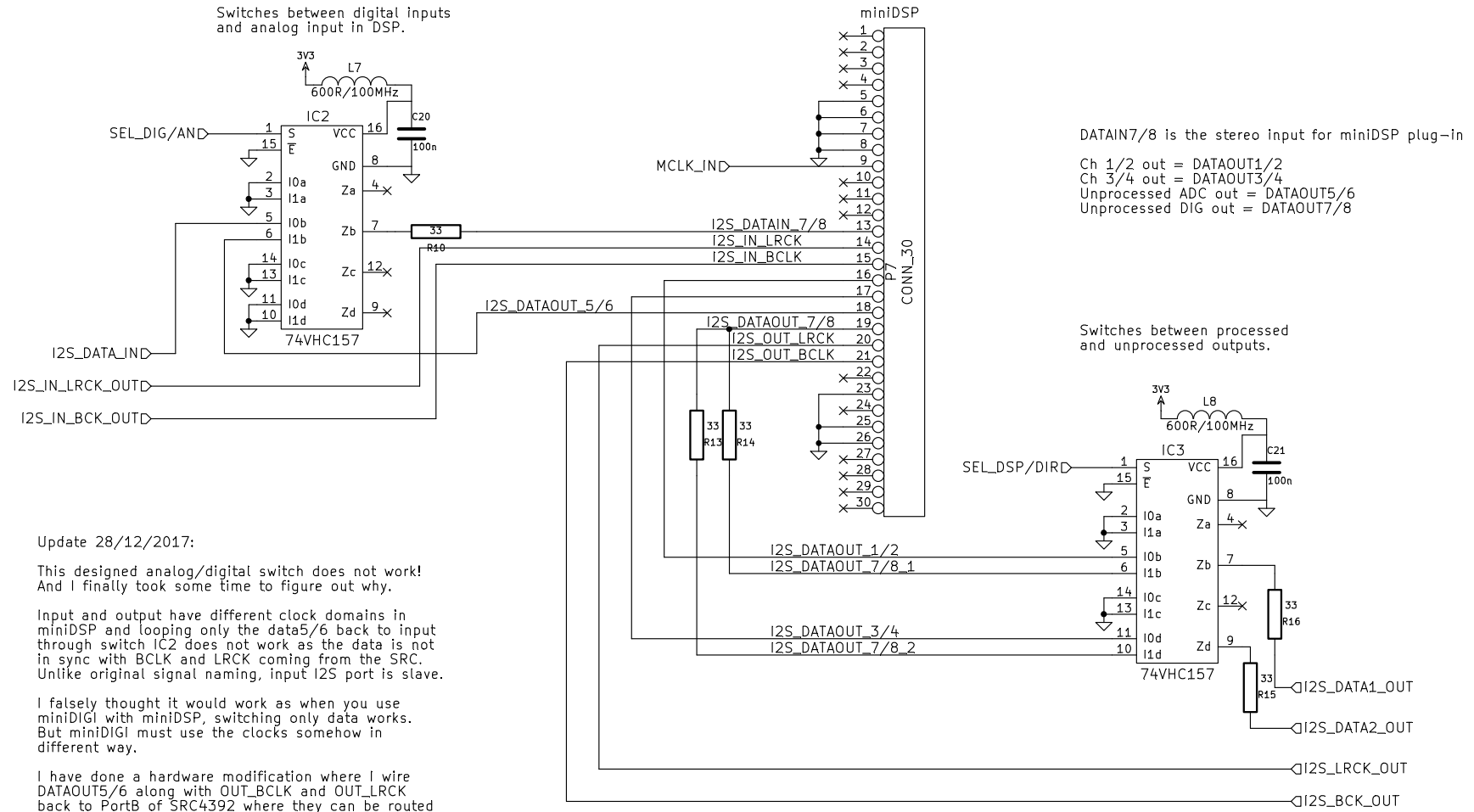


Root sheet



DSP board connections		
Tomi Nihtilä		
File: srcdac.sch		
Sheet: /		
Title: miniD Preamp (OLED mod)		
Size: A4	Date: 28 dec 2017	Rev: Rev1-OLED
KiCad E.D.A. eschema (2013-07-07 BZR 4022)-stable		Id: 1/5

DSP Connections

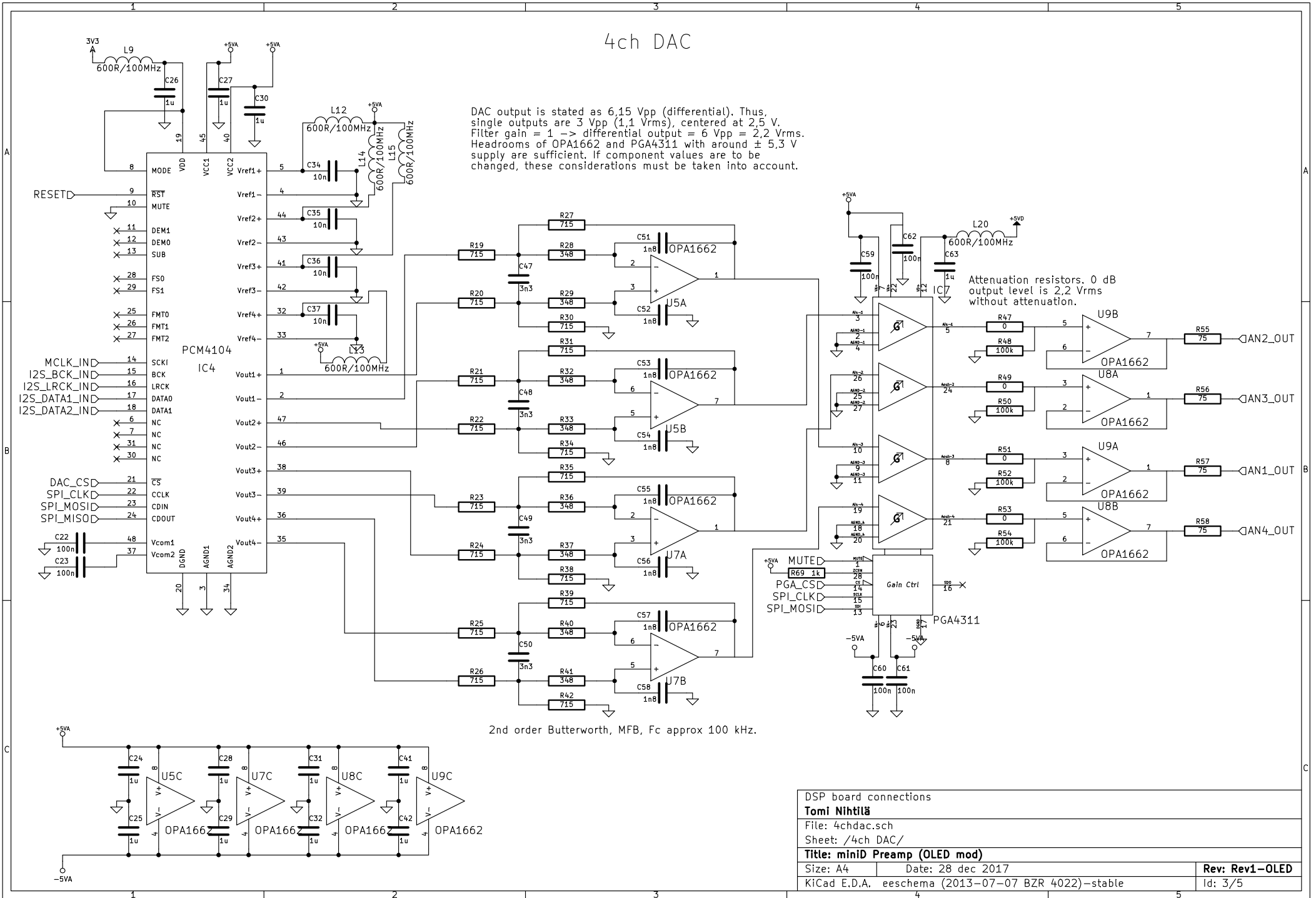


DSP board connections		
Tommi Nihtilä		
File: dspconn.sch		
Sheet: /DSP connections/		
Title: miniD Preamp (OLED mod)		
Size: A4	Date: 28 dec 2017	Rev: Rev1-OLED
KiCad E.D.A. eeschema (2013-07-07 BZR 4022)-stable		Id: 2/5

4ch DAC

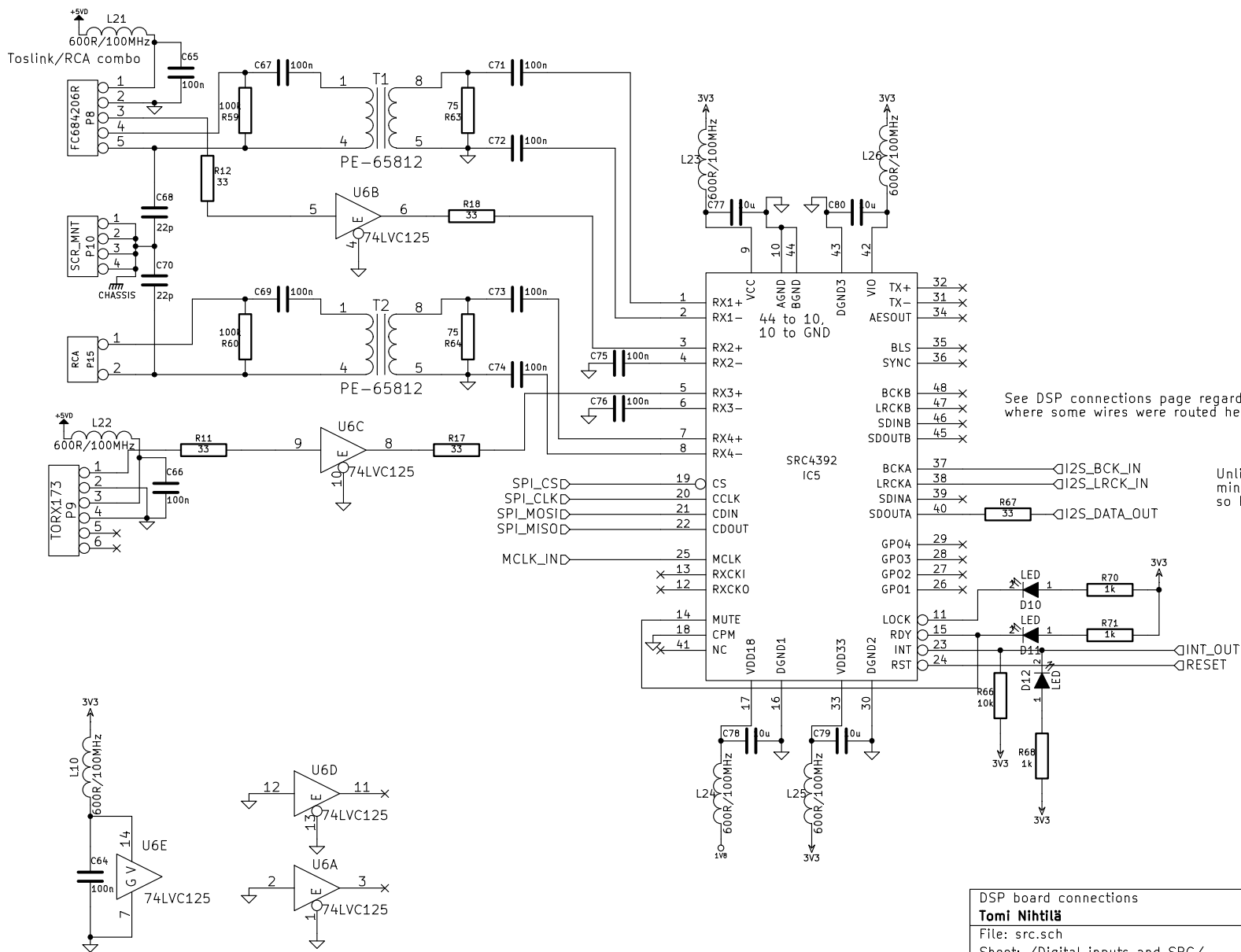
DAC output is stated as 6,15 Vpp (differential). Thus, single outputs are 3 Vpp (1,1 Vrms), centered at 2,5 V. Filter gain = 1 \rightarrow differential output = 6 Vpp = 2,2 Vrms. Headrooms of OPA1662 and PGA4311 with around $\pm 5,3$ V supply are sufficient. If component values are to be changed, these considerations must be taken into account.

2nd order Butterworth, MFB, Fc approx 100 kHz.



DSP board connections	
Tommi Nihtilä	
File: 4chdac.sch	
Sheet: /4ch DAC/	
Title: miniD Preamp (OLED mod)	
Size: A4	Date: 28 dec 2017
KiCad E.D.A. eeschema (2013-07-07 BZR 4022)-stable	Rev: Rev1-OLED
	Id: 3/5

Digital inputs and SRC



See DSP connections page regarding the mod where some wires were routed here to PortB.

Unlike original signal naming, miniDSP input I2S port is slave so Port A here is master.

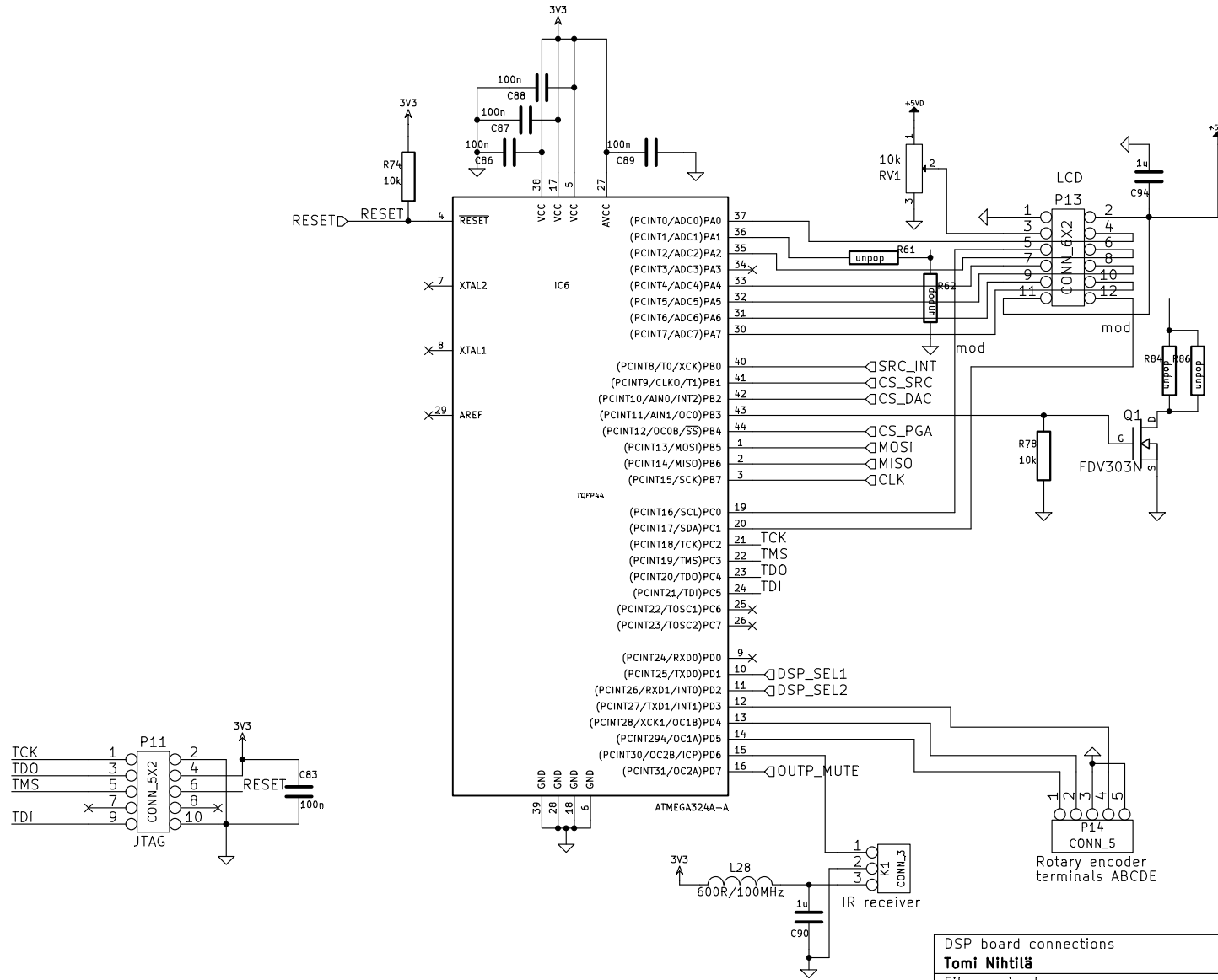
DSP board connections		
Tommi Nihtilä		
File: src.sch		
Sheet: /Digital inputs and SRC/		
Title: miniD Preamp (OLED mod)		
Size: A4	Date: 28 dec 2017	Rev: Rev1-OLED
KiCad E.D.A. eeschema (2013-07-07 BZR 4022)-stable		Id: 4/5

Microcontroller

Update 28/12/2017:

Some modifications were done for miniD OLED version so these are marked on here.

OLED used instead of LCD so resistors were removed and I2C signals connected to P13. OLED was then wired to those and supply pins 1-2. The rest of the PORTA pins were used for debugging signals.



DSP board connections		
Tommi Nihtilä		
File: ucui.sch		
Sheet: /Microcontroller/		
Title: miniD Preamp (OLED mod)		
Size: A4	Date: 28 dec 2017	Rev: Rev1-OLED
KiCad E.D.A. eschema (2013-07-07 BZR 4022)-stable		Id: 5/5