AC to DC conversion
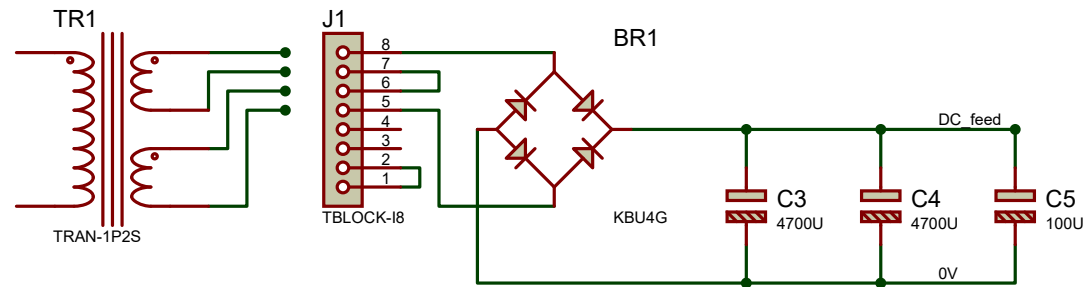
TR1

Mains fed via
fused IEC filter
RIS0422H2

TRAN-1P2S

J1

8
7
6
5
4
3
2
1

TBLOCK-I8

BR1

KBU4G

DC_feed

C3
4700U

C4
4700U

C5
100U

0V

Voltage regulators

U1 — LM723

Pin	Label
12	V+
5	NI
6	VREF
13	COMP
4	INV
7	V-
11	VC
10	VOUT
2	CL
3	CS
9	VZ

R3 6.8K
C14 4.7uF
C1 100pF

DC_feed

24V_electronics
R1 22.0K
RV1 1K
R2 9.1K
0V

U2 — LM723

R6 6.8K
C15 4.7uF
C2 100pF

DC_feed

24V_bulk
R4 22.0K
RV2 1K
R5 9.1K
0V

J8
TBLOCK-I8
1
2
3
4
5
6
7
8

Q1 2N3054
Q2 2N3054

SW1
SW-DPST
24V_Heat — 24V_bulk
24V_Clean — 24V_electronics
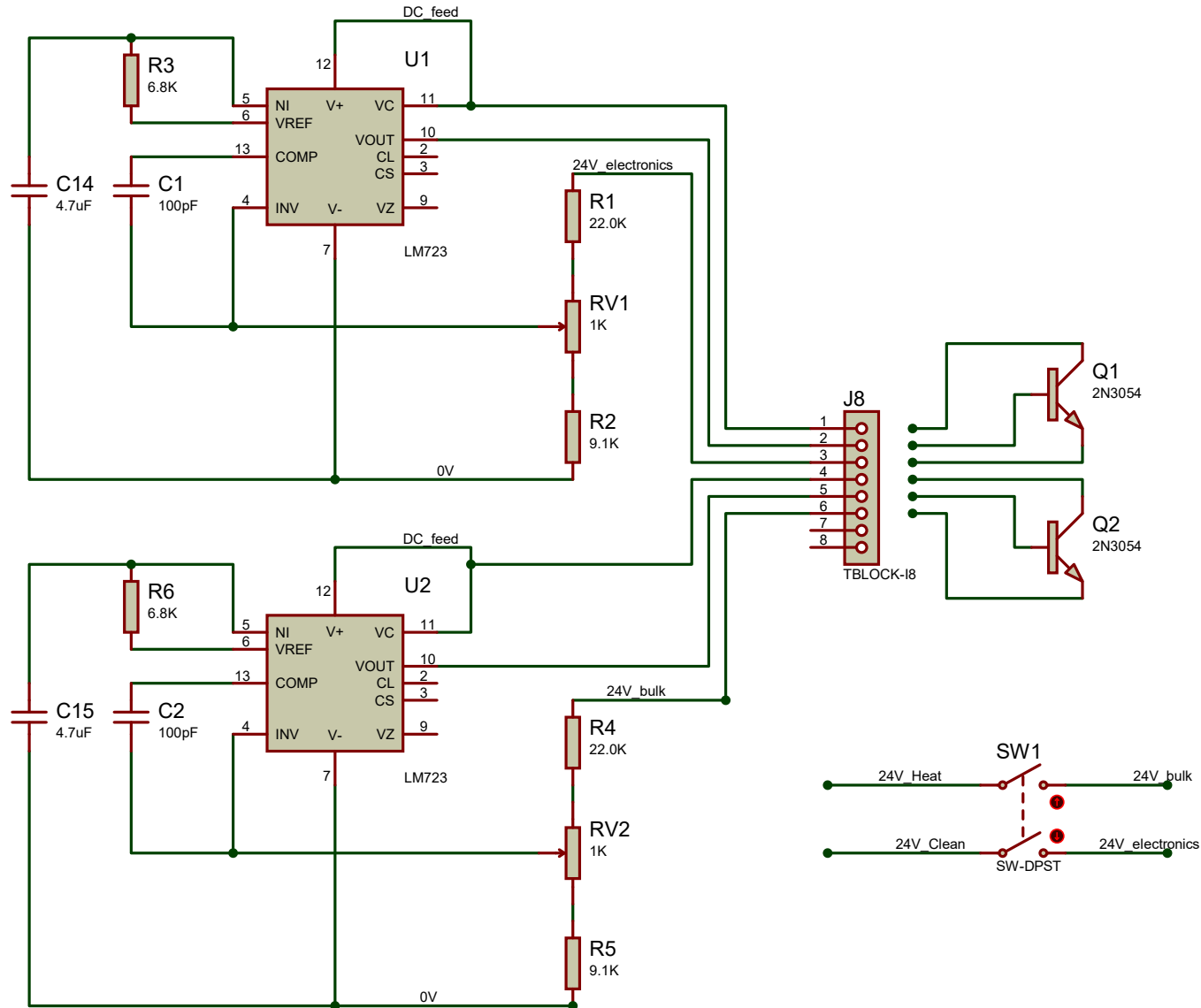
RS232 to USB conversion
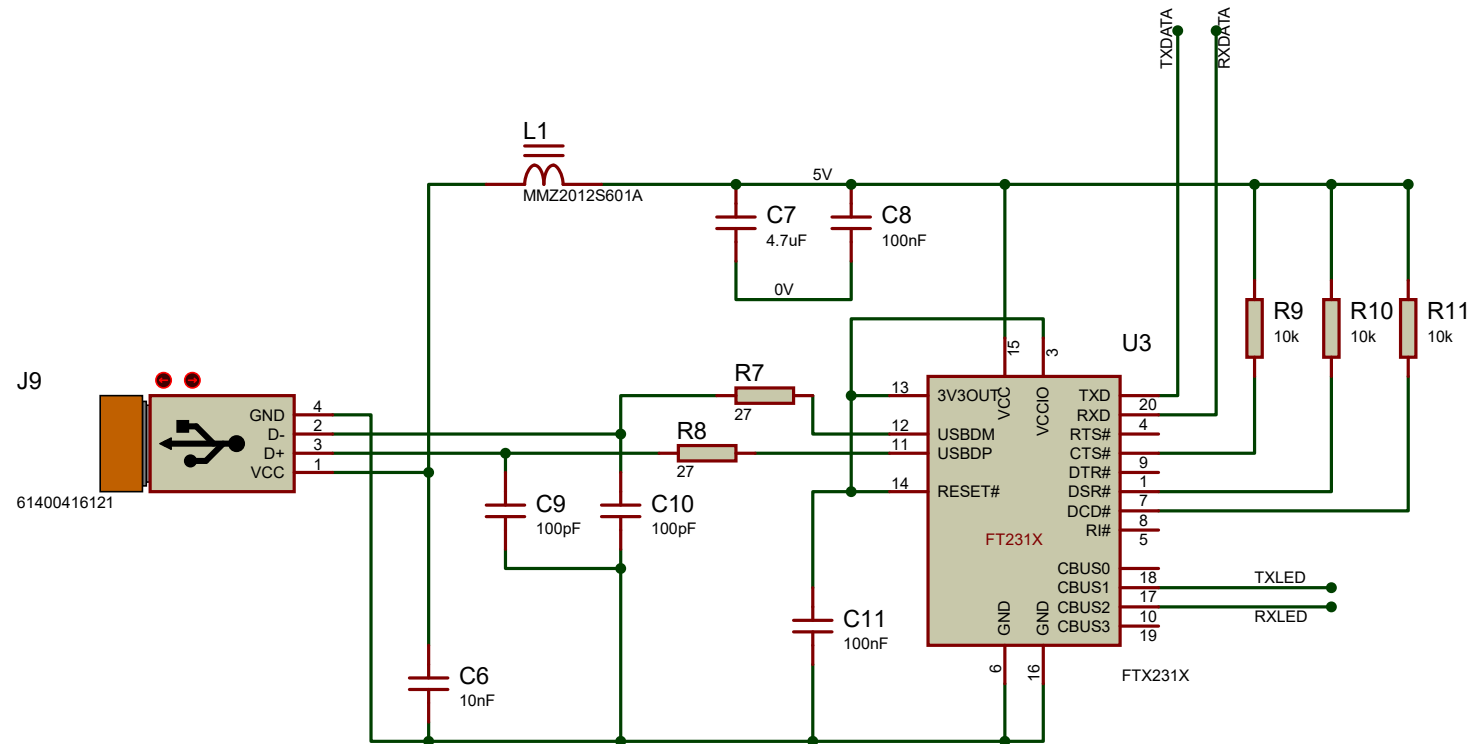
PRS10 connector daughterboard

J2

C12
100nF

C13
100nF

J3

		1
	24V_Heat	2
6	Ground	3
10	1PPS_in	4
5	24V_Clean	5
9	TXD	6
4		7
		8
RF1	RF_OUT	9
RF2		10
RF3		

27631002RP2

Pot-
3   Pot+
8   PotWiper
2   RXD
7   Lock_1PPS
1

Ground

CONN-11W1F
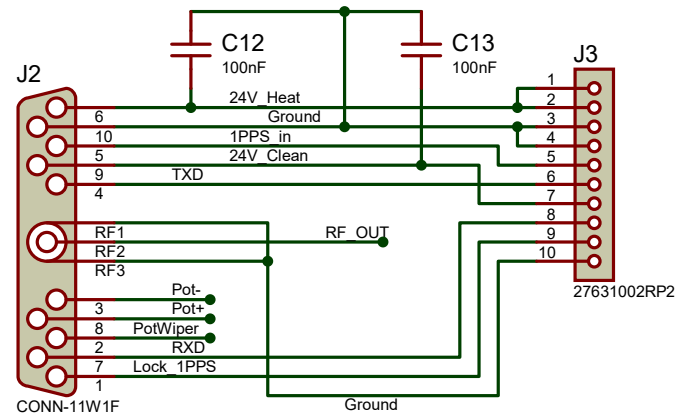
Status LED daughterboard
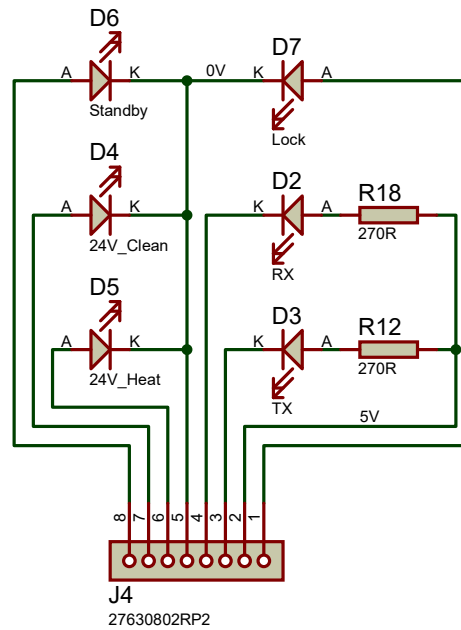
Daughterboard connectors

PRS10

J6

Pin	Signal
10	0V
9	1PPS
8	RXD
7	24V_Clean
6	TXD
5	1PPS_in
4	
3	0V
2	
1	24V_Heat

25631001RP2

R22
8.2k

24V_Clean

R23
1k

R24
1.2k

Lock

Q3
BSS64

0V

J5

Pin	Signal
1	
2	5V
3	TXLED
4	RXLED
5	0V
6	
7	
8	

LEDs

25630801RP2

24V_Heat   R20   R21
            1k   1.2k

24V_Clean   R13   R19
            1k   1.2k

DC_Feed   R16   R17   STANDBYLED
            1500R 1500R