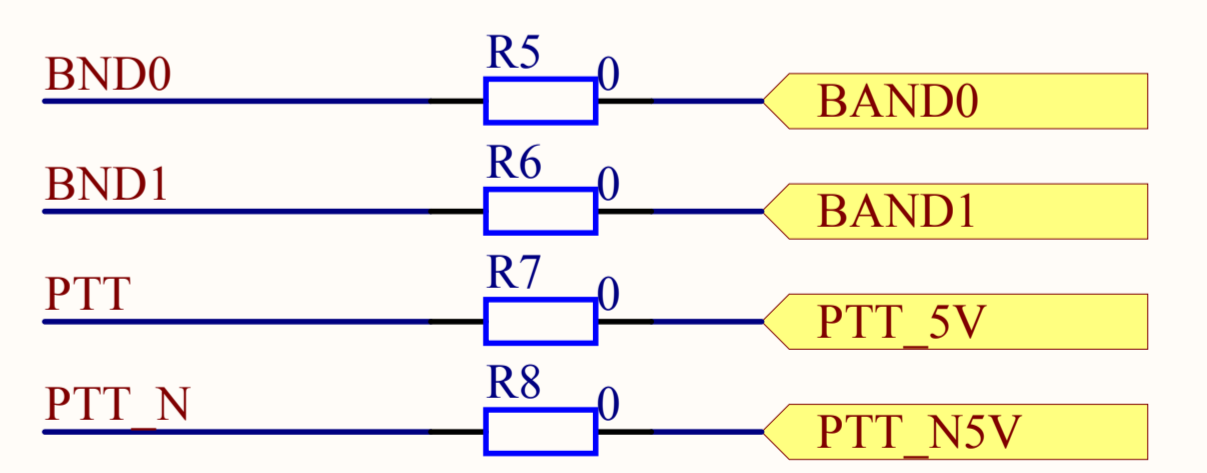


all filter caps 100V/NPO

MODE	OE1	OE2	S1	S0	Switches	Filter
TX	1	0	0	0	2B1	20/30m
TX	1	0	0	1	2B2	40m
TX	1	0	1	0	2B3	15-10m
TX	1	0	1	1	2B4	80m
RX	0	1	0	0	1B1	20/30m
RX	0	1	0	1	1B2	40m
RX	0	1	1	0	1B3	15-10m
RX	0	1	1	1	1B4	80m

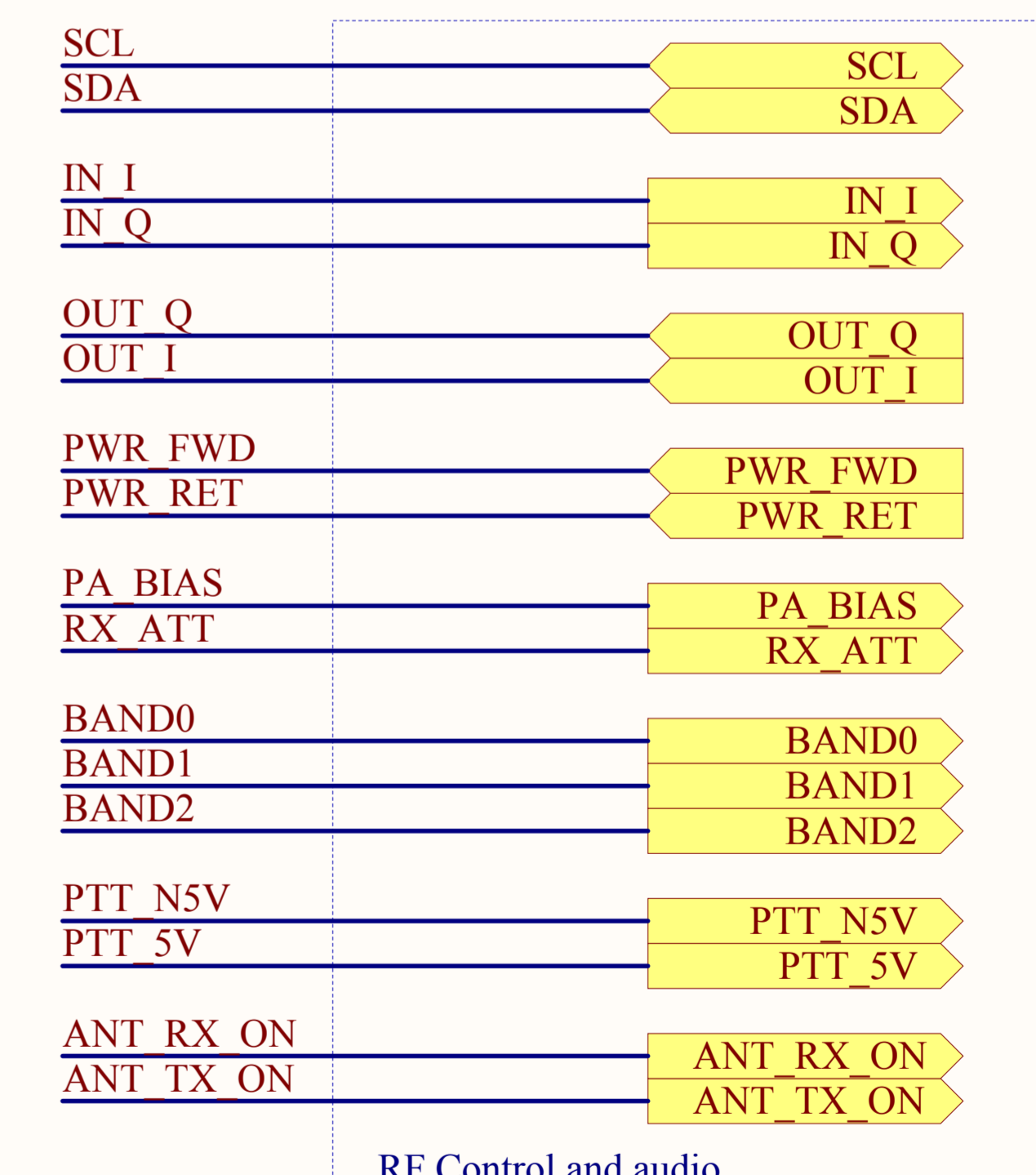
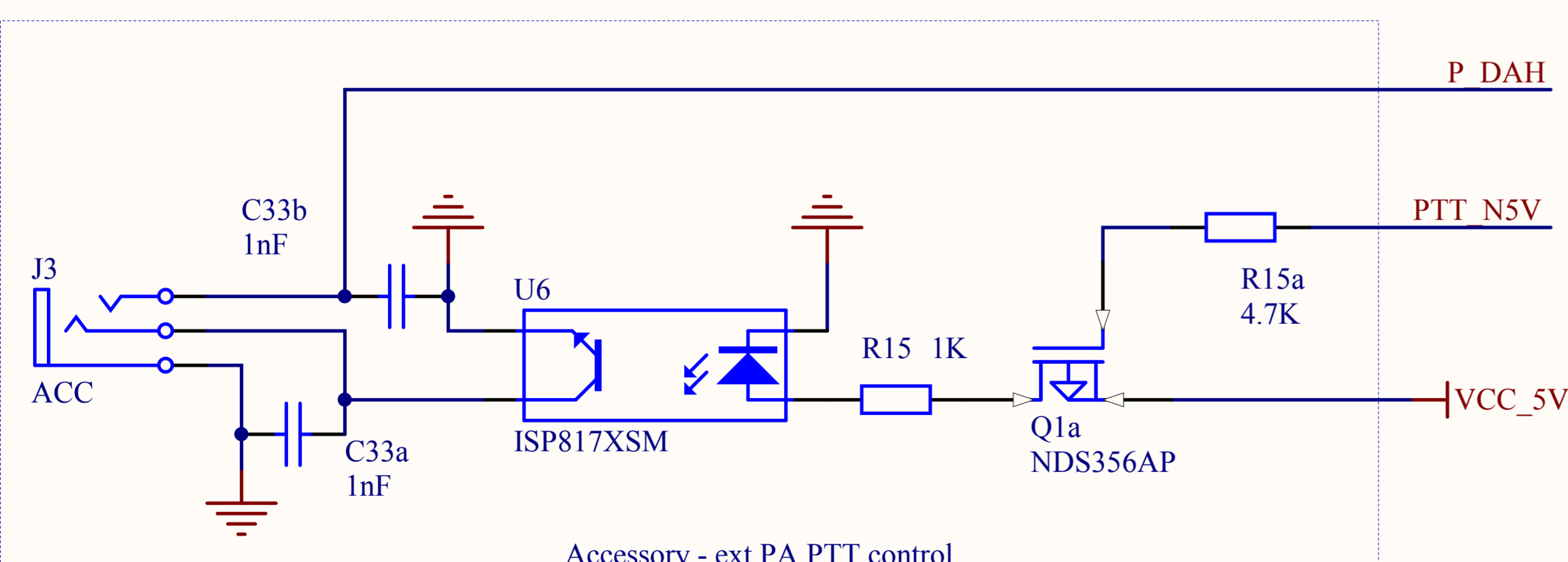
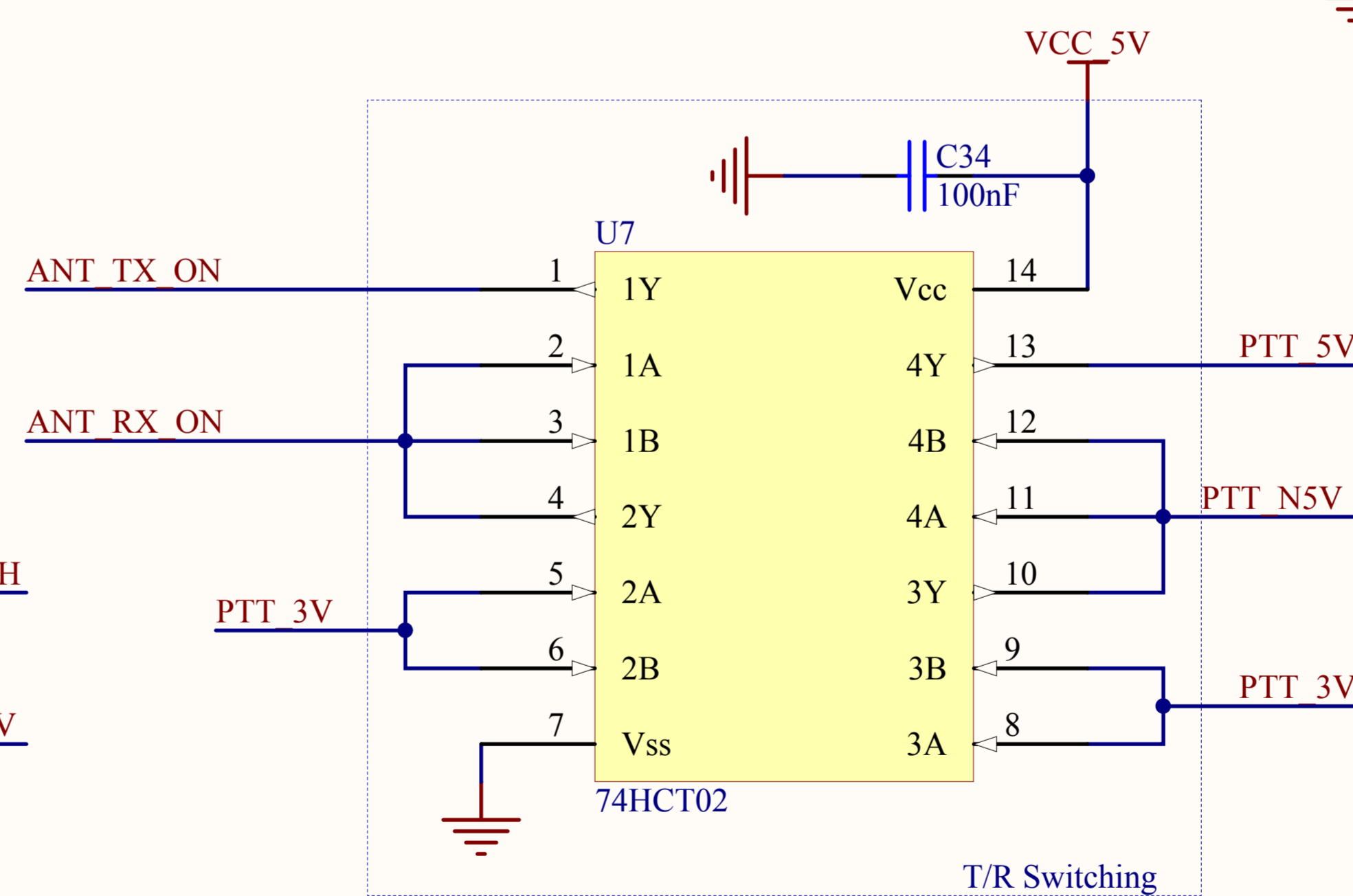
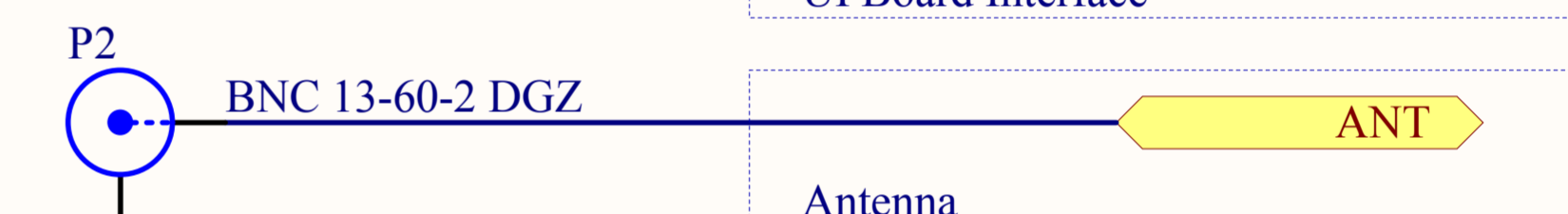
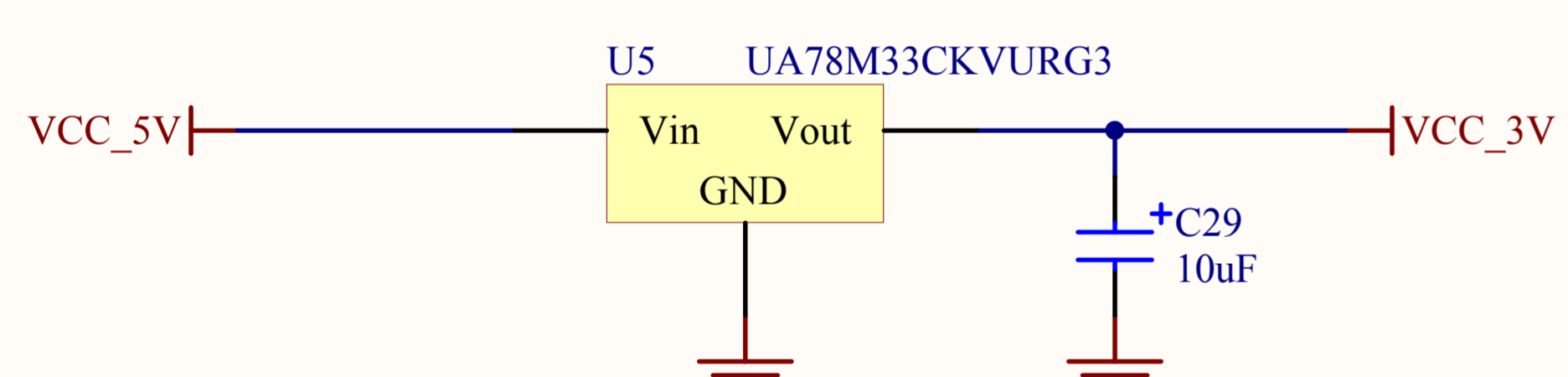
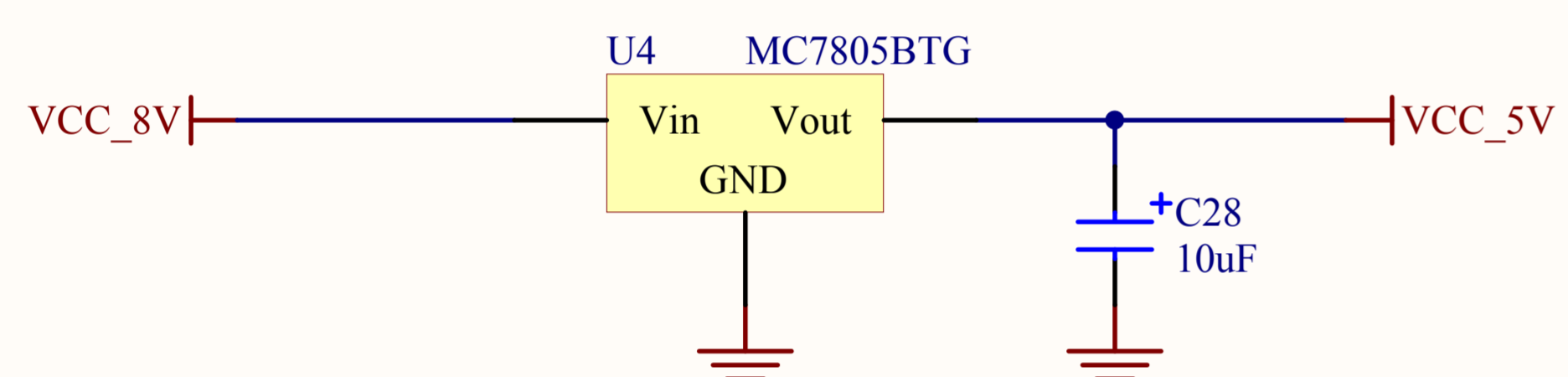
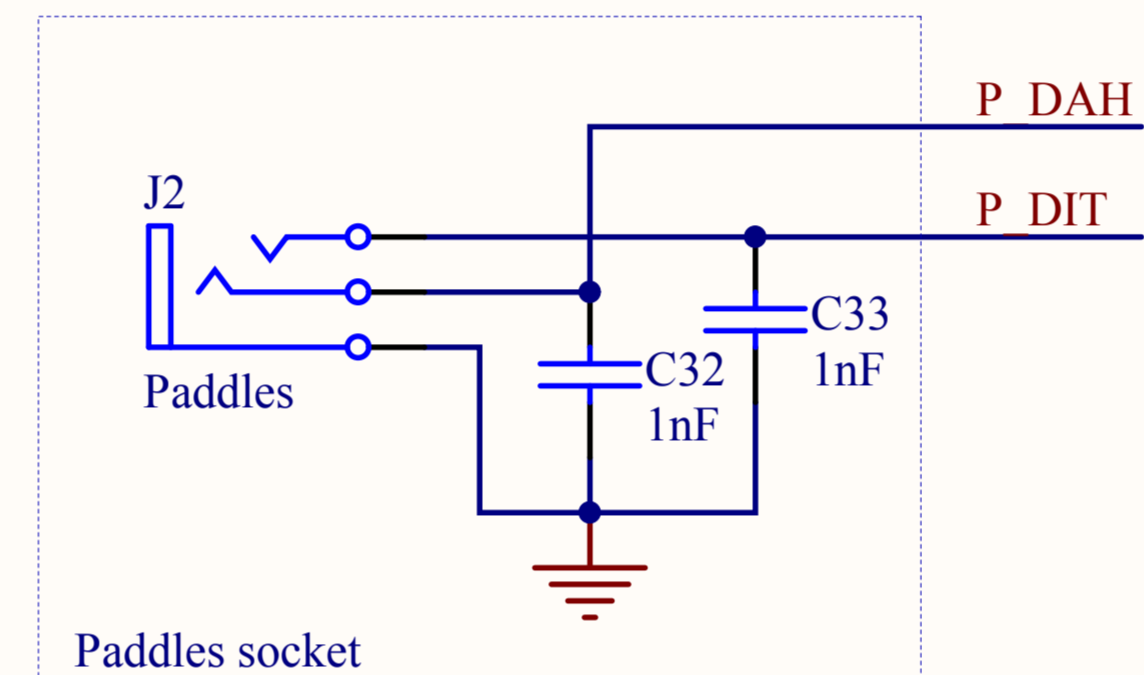
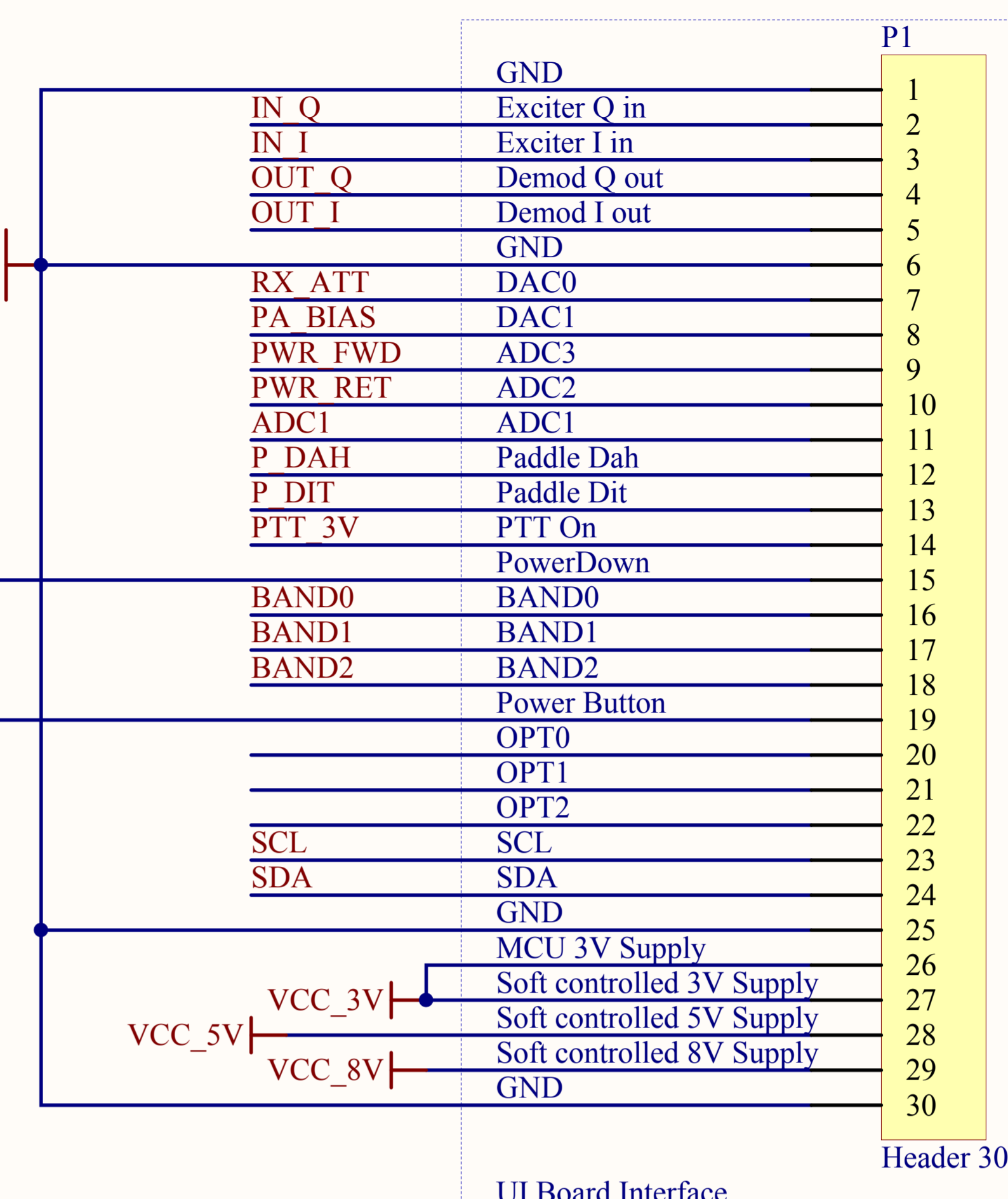
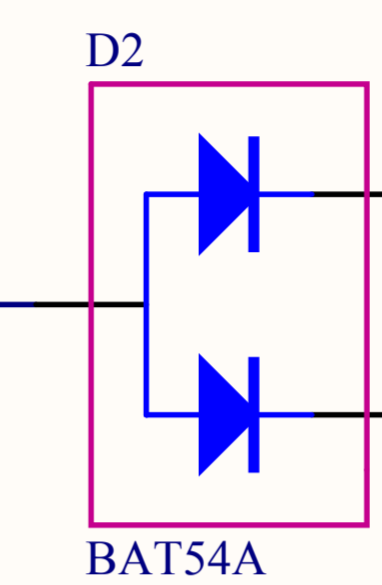
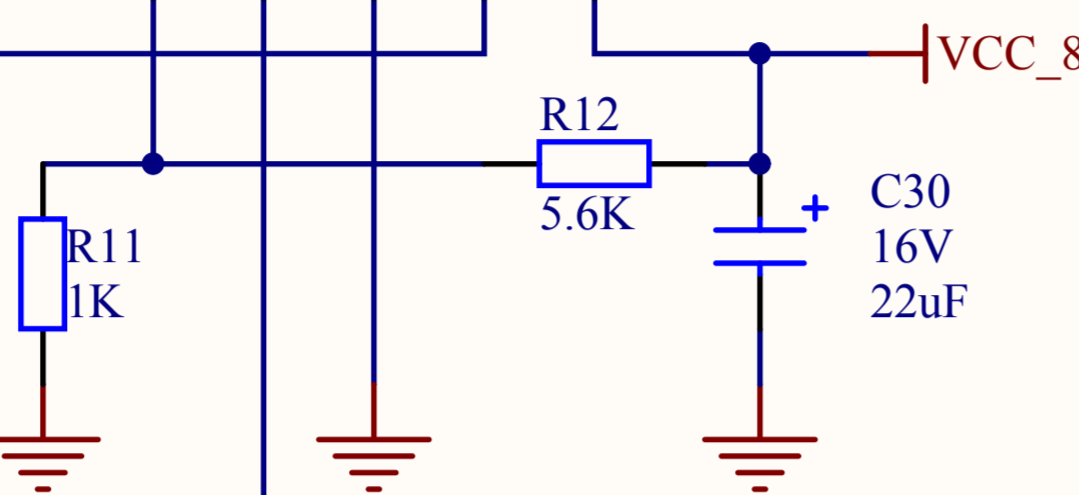
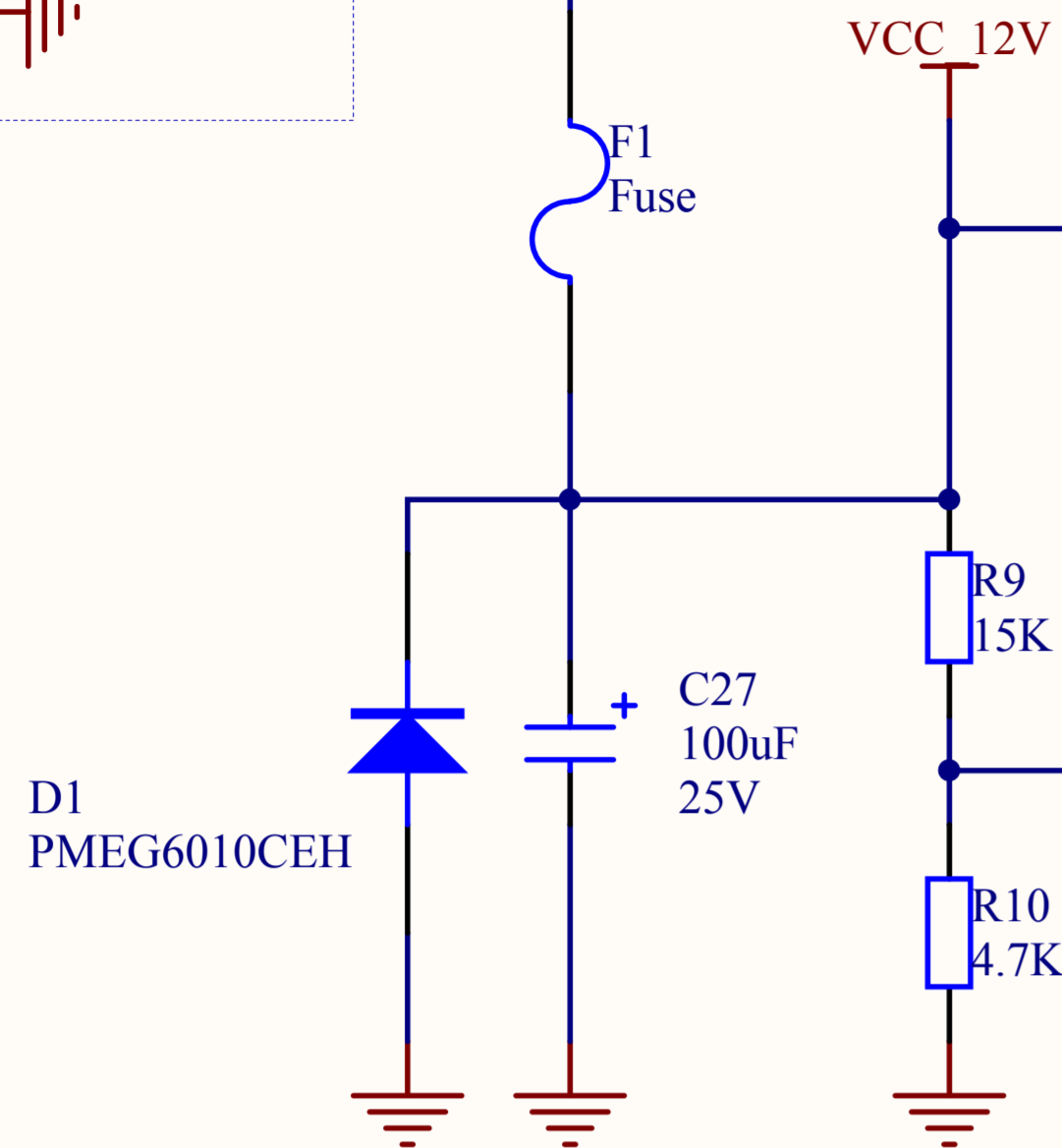
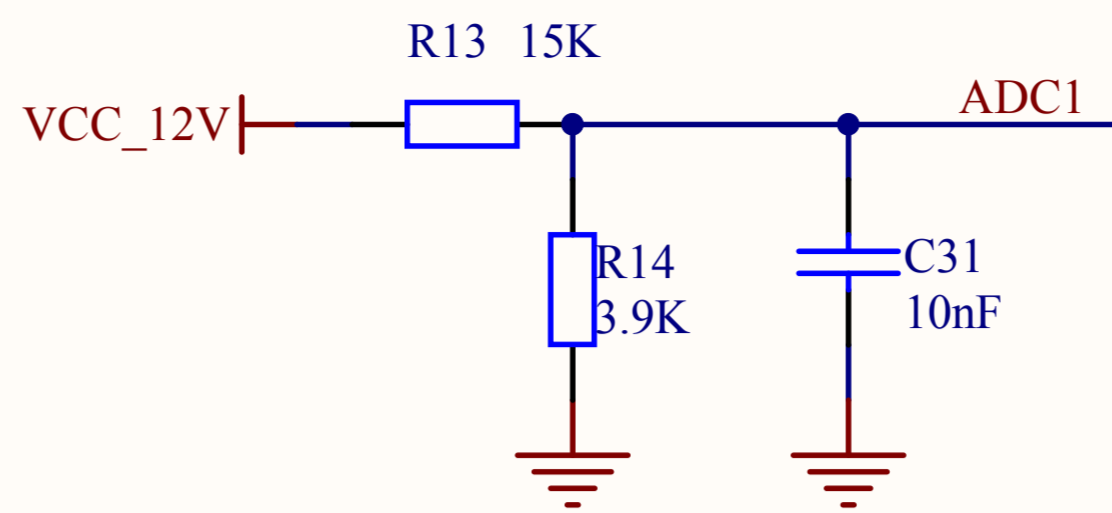
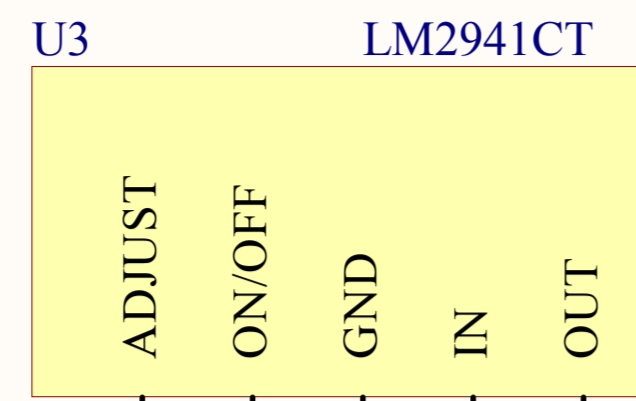
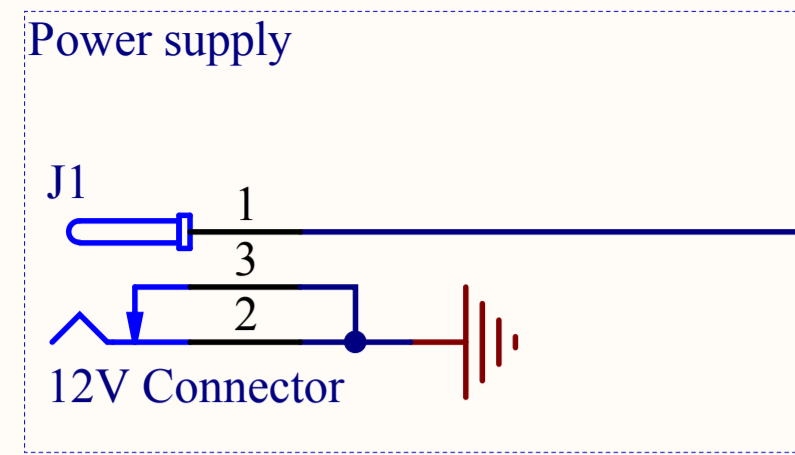


mcHF QRP Transceiver RF board

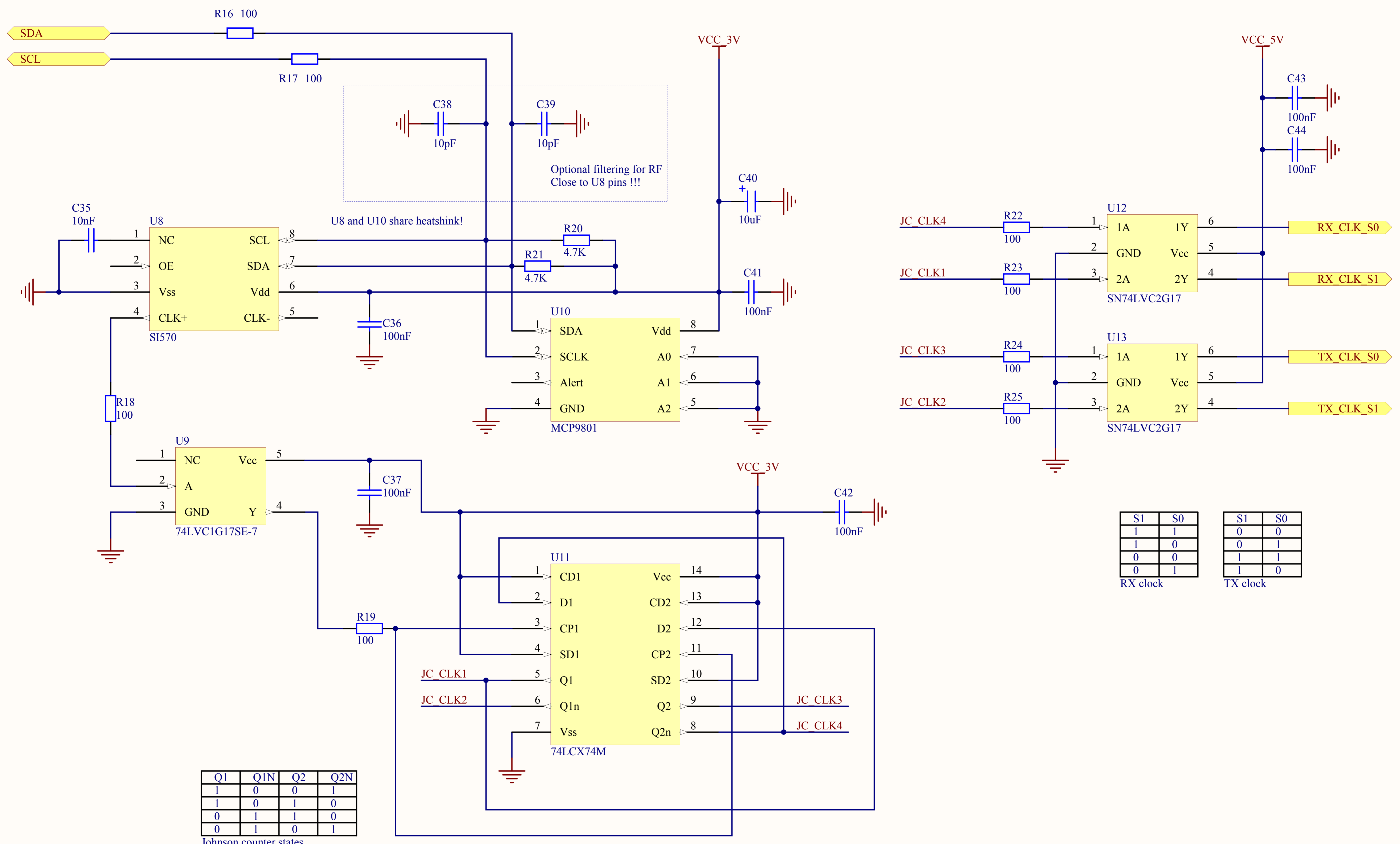
Bandpass filters

K Atanassov
MONKA

Date: 4/8/2014 Revision: 0.2 Sheet 2 of 10
File: \\tsclient\C\Projects\mcHF\pcb\rf\Schematics\rf_bpf.SchDoc



mcHF QRP Transceiver RF board			UI board interface and power	K Atanassov MONKA
Date: 4/8/2014	Revision: 0.2	Sheet 3 of 10		
File: \\tsclient\C\Projects\mcHF\pcb\rf\Schematics\rf_conn.SchDoc				



Q1	Q1N	Q2	Q2N
1	0	0	1
1	0	1	0
0	1	1	0
0	1	0	1

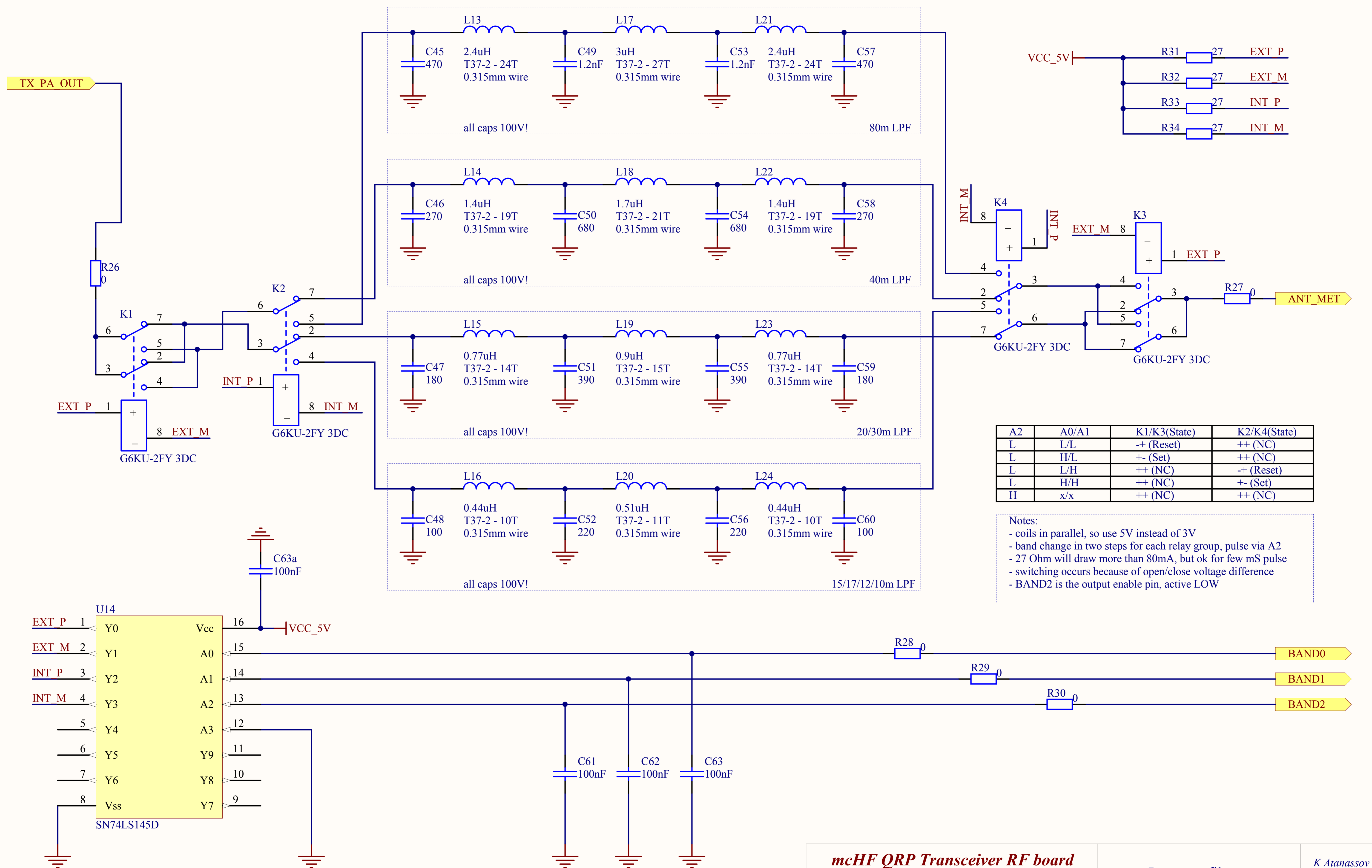
Johnson counter states

S1	S0
1	1
1	0
0	0
0	1

RX clock

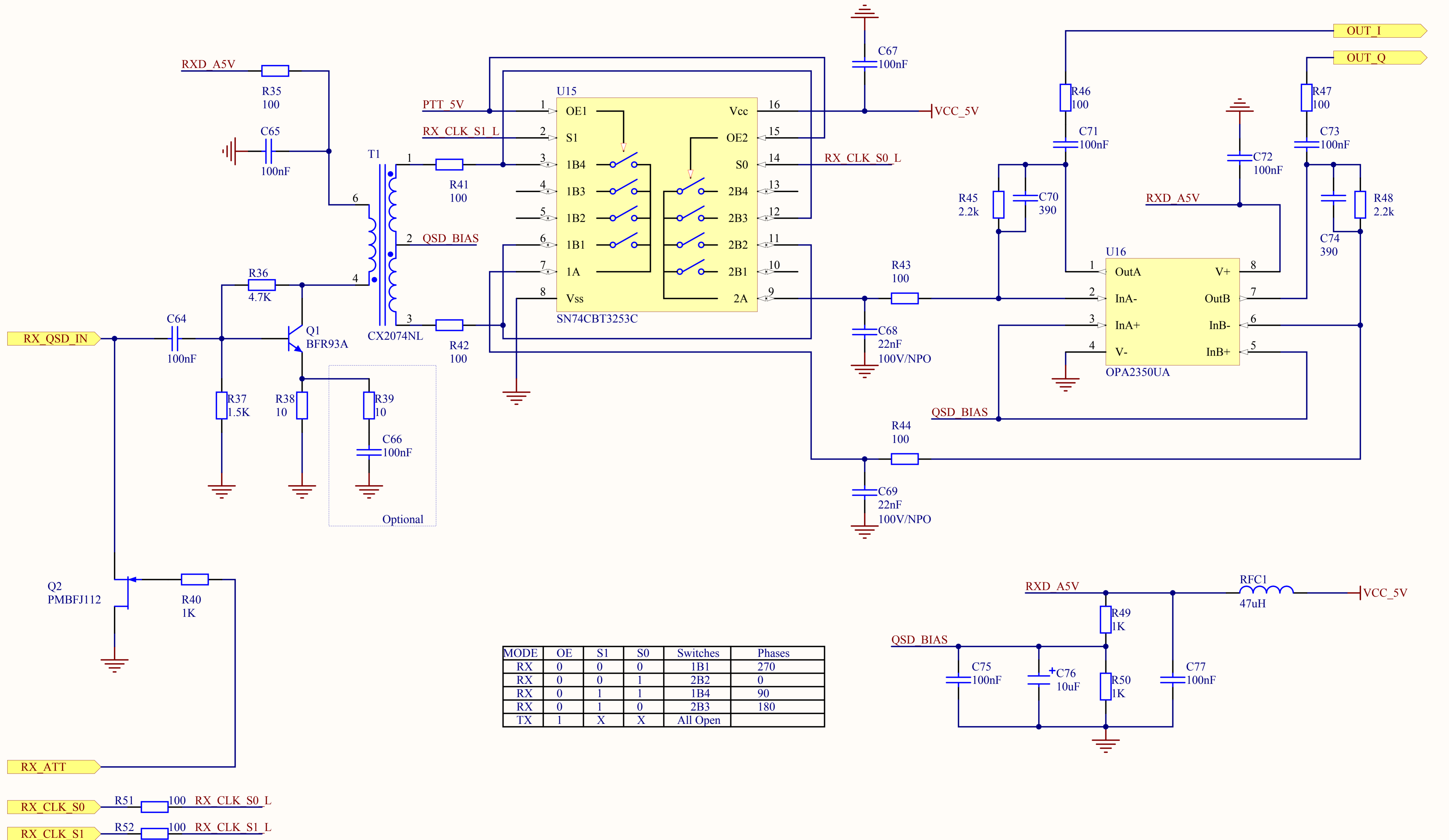
S1	S0
0	0
0	1
1	1
1	0

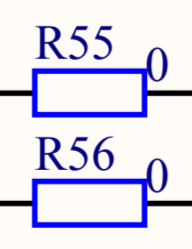
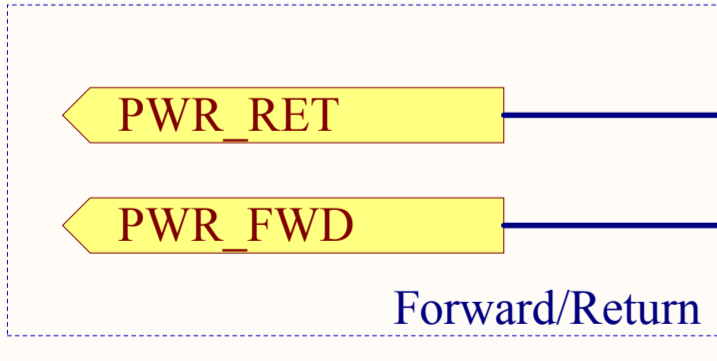
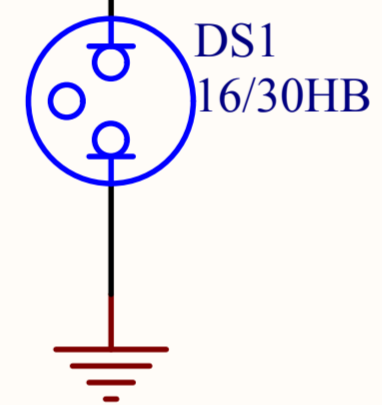
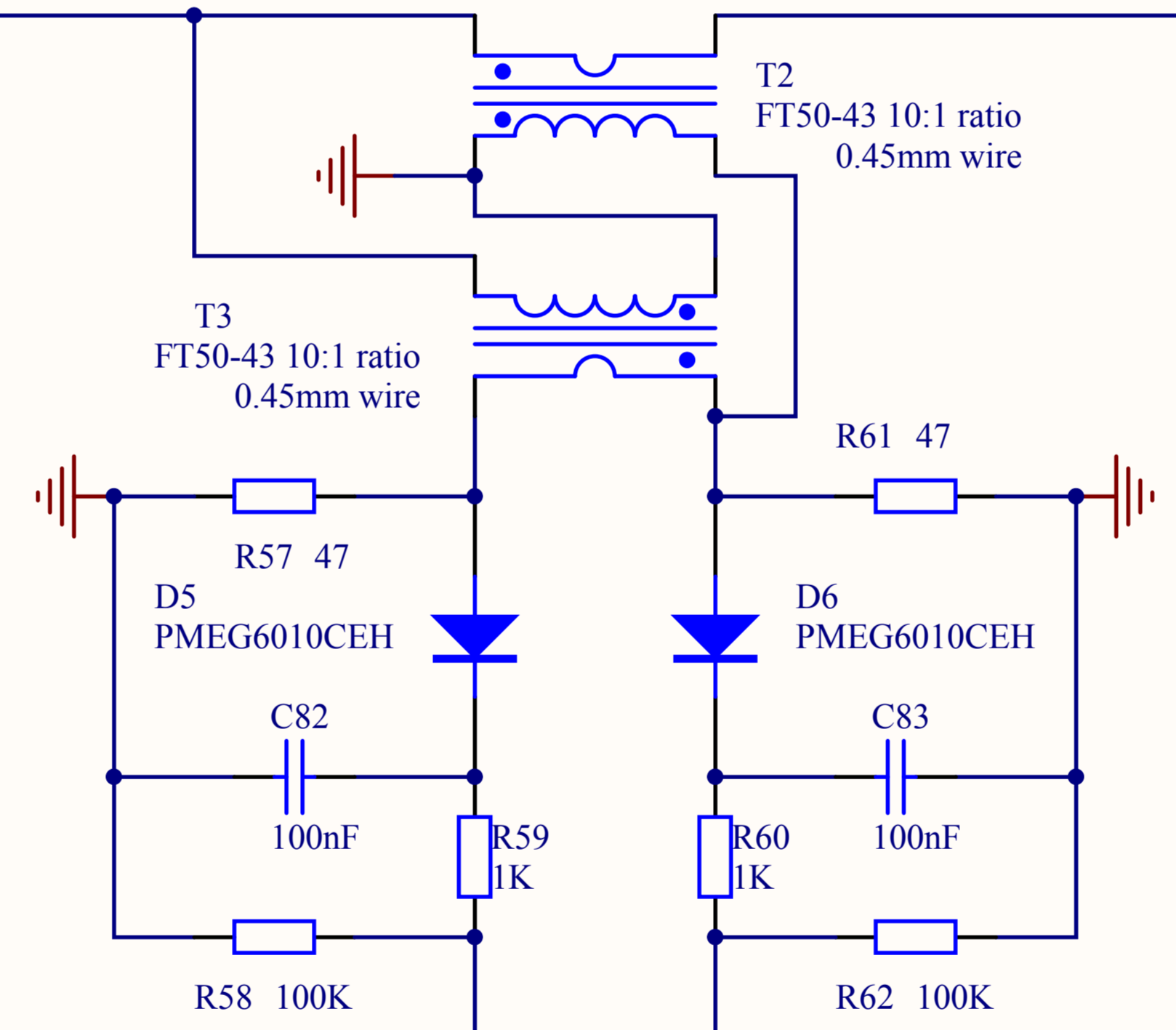
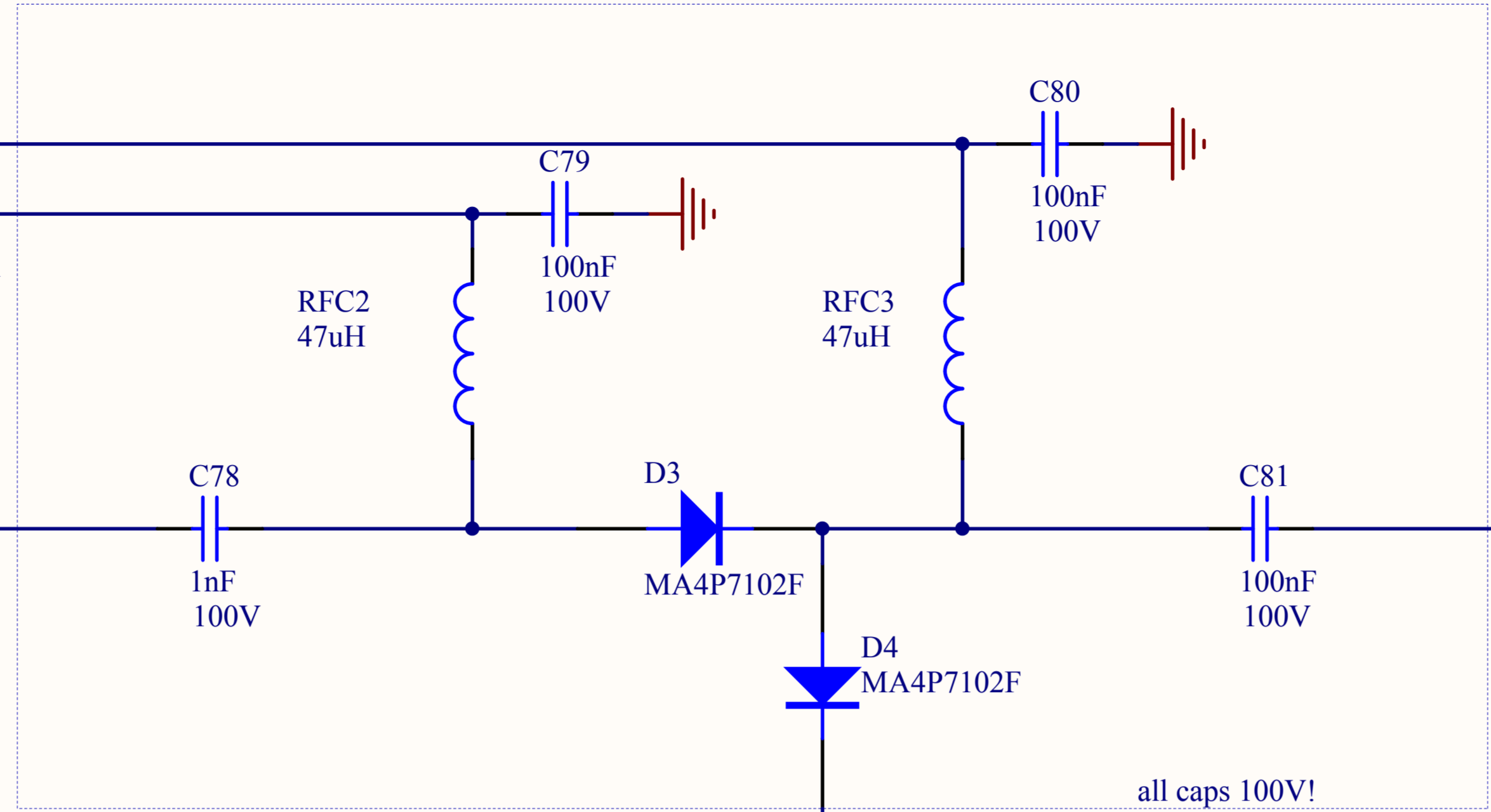
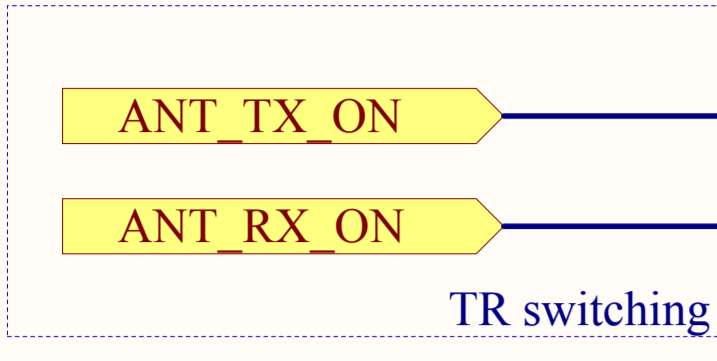
TX clock



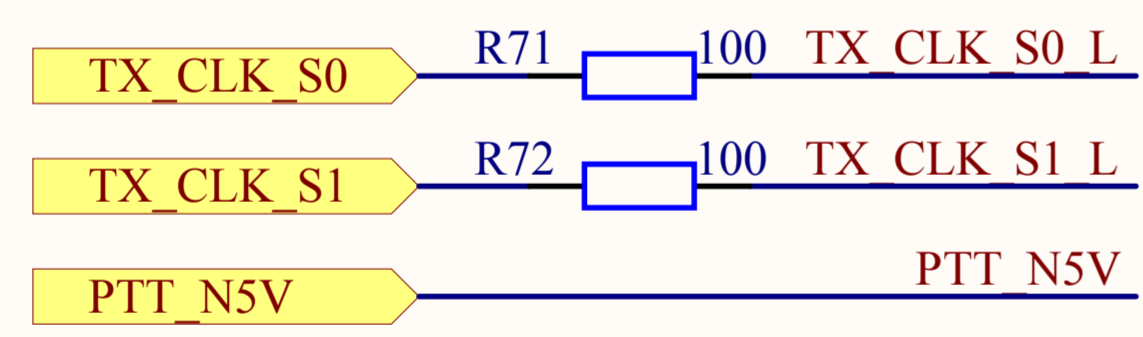
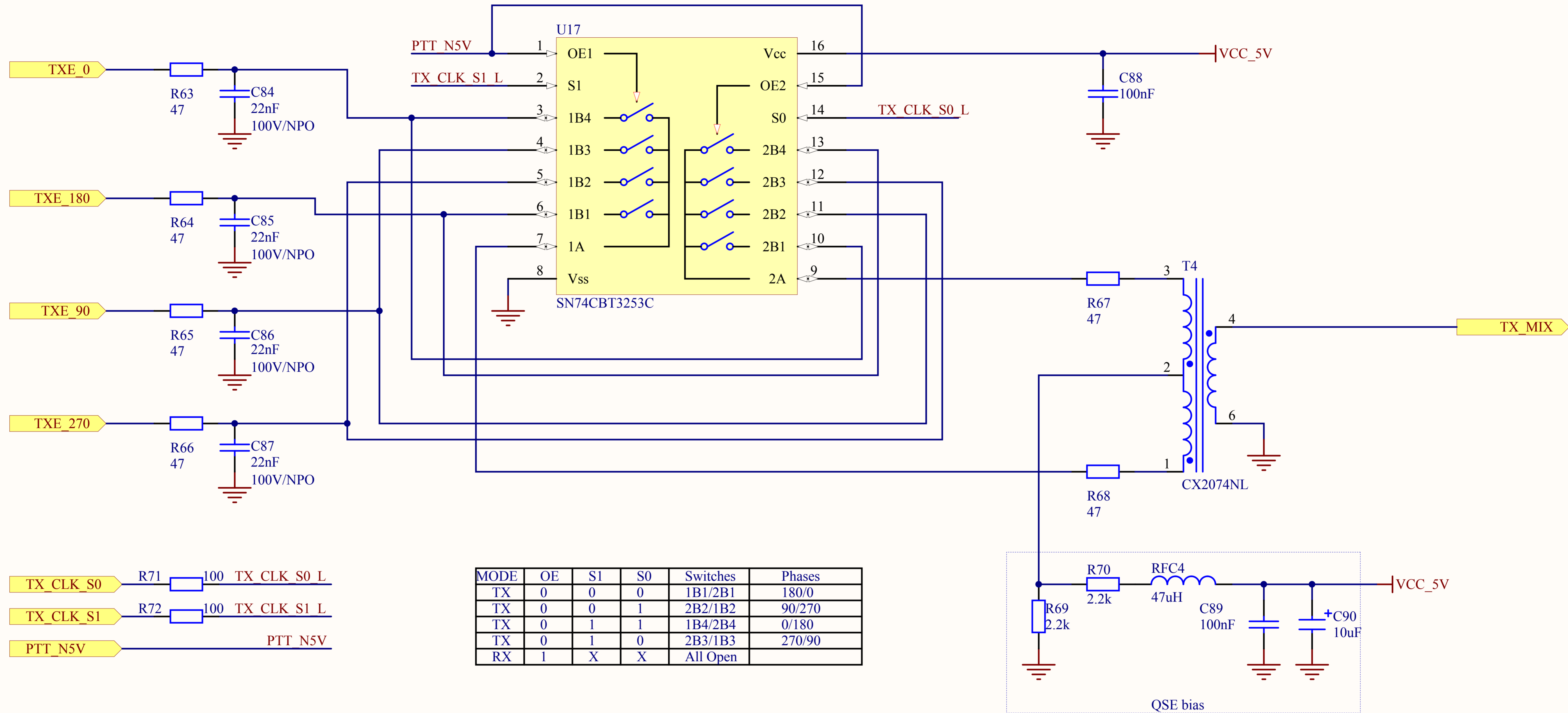
A2	A0/A1	K1/K3(State)	K2/K4(State)
L	L/L	-+ (Reset)	++ (NC)
L	H/L	+ - (Set)	++ (NC)
L	L/H	++ (NC)	-+ (Reset)
L	H/H	++ (NC)	+ - (Set)
H	x/x	++ (NC)	++ (NC)

Notes:
 - coils in parallel, so use 5V instead of 3V
 - band change in two steps for each relay group, pulse via A2
 - 27 Ohm will draw more than 80mA, but ok for few mS pulse
 - switching occurs because of open/close voltage difference
 - BAND2 is the output enable pin, active LOW

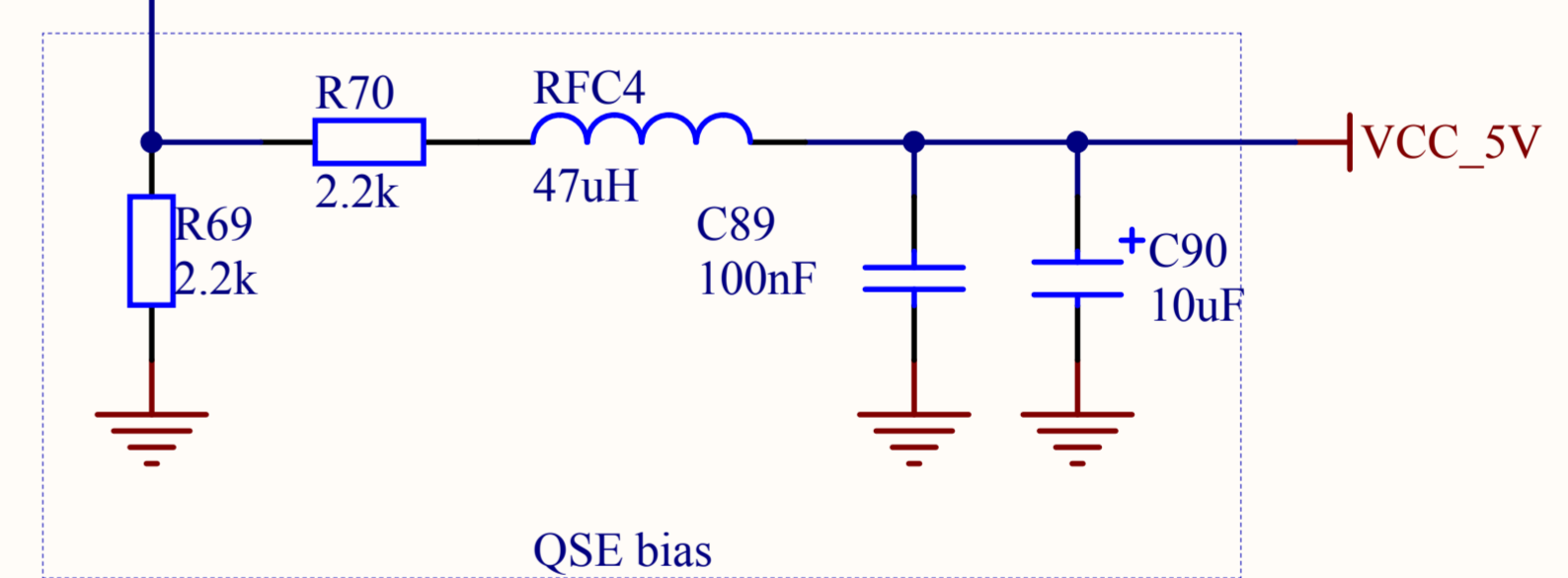


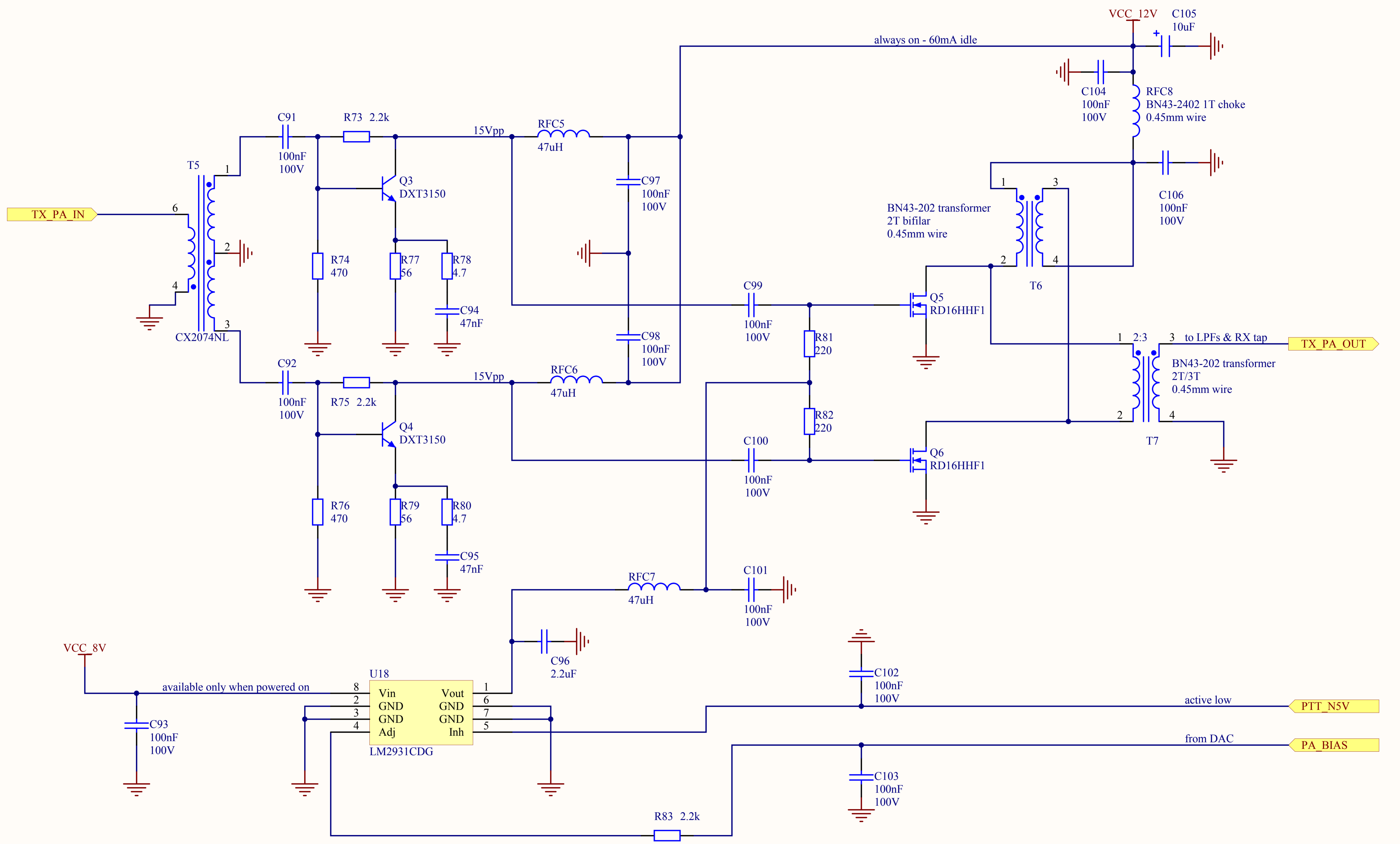


mcHF QRP Transceiver RF board			Antenna Switching	K Atanassov MONKA
Date: 4/8/2014	Revision: 0.2	Sheet 7 of 10		
File: \\tsclient\C\Projects\mcHF\pcb\rf\Schematics\rf_trsw.SchDoc				



MODE	OE	S1	S0	Switches	Phases
TX	0	0	0	1B1/2B1	180/0
TX	0	0	1	2B2/1B2	90/270
TX	0	1	1	1B4/2B4	0/180
TX	0	1	0	2B3/1B3	270/90
RX	1	X	X	All Open	





mcHF QRP Transceiver RF board			TX Power Amplifier	<i>K Atanassov MONKA</i>
Date: 4/8/2014	Revision: 0.2	Sheet 9 of 10		
File: \\tsclient\C\Projects\mcHF\pcb\rf\Schematics\rf_txpa.SchDoc				

