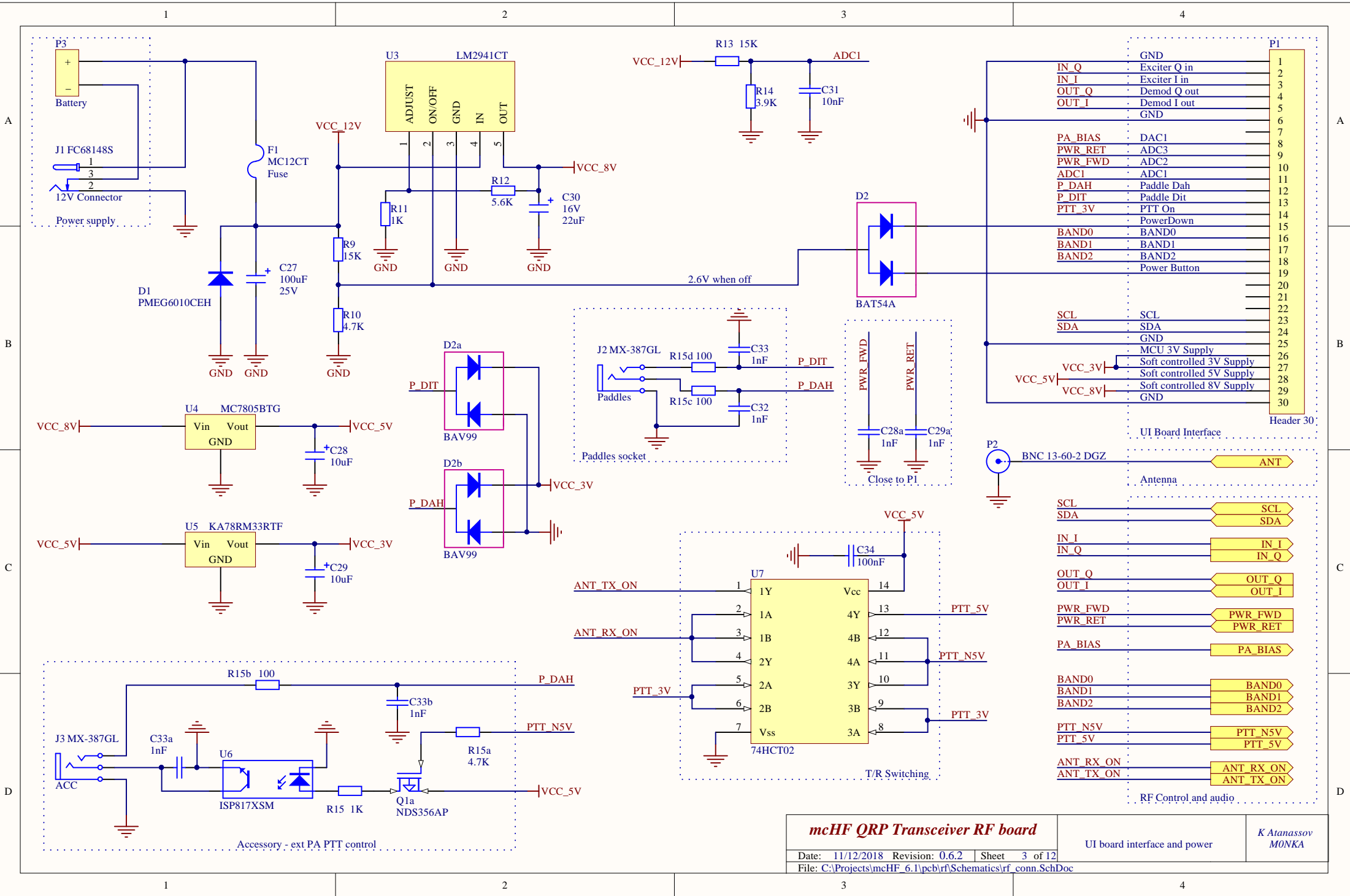
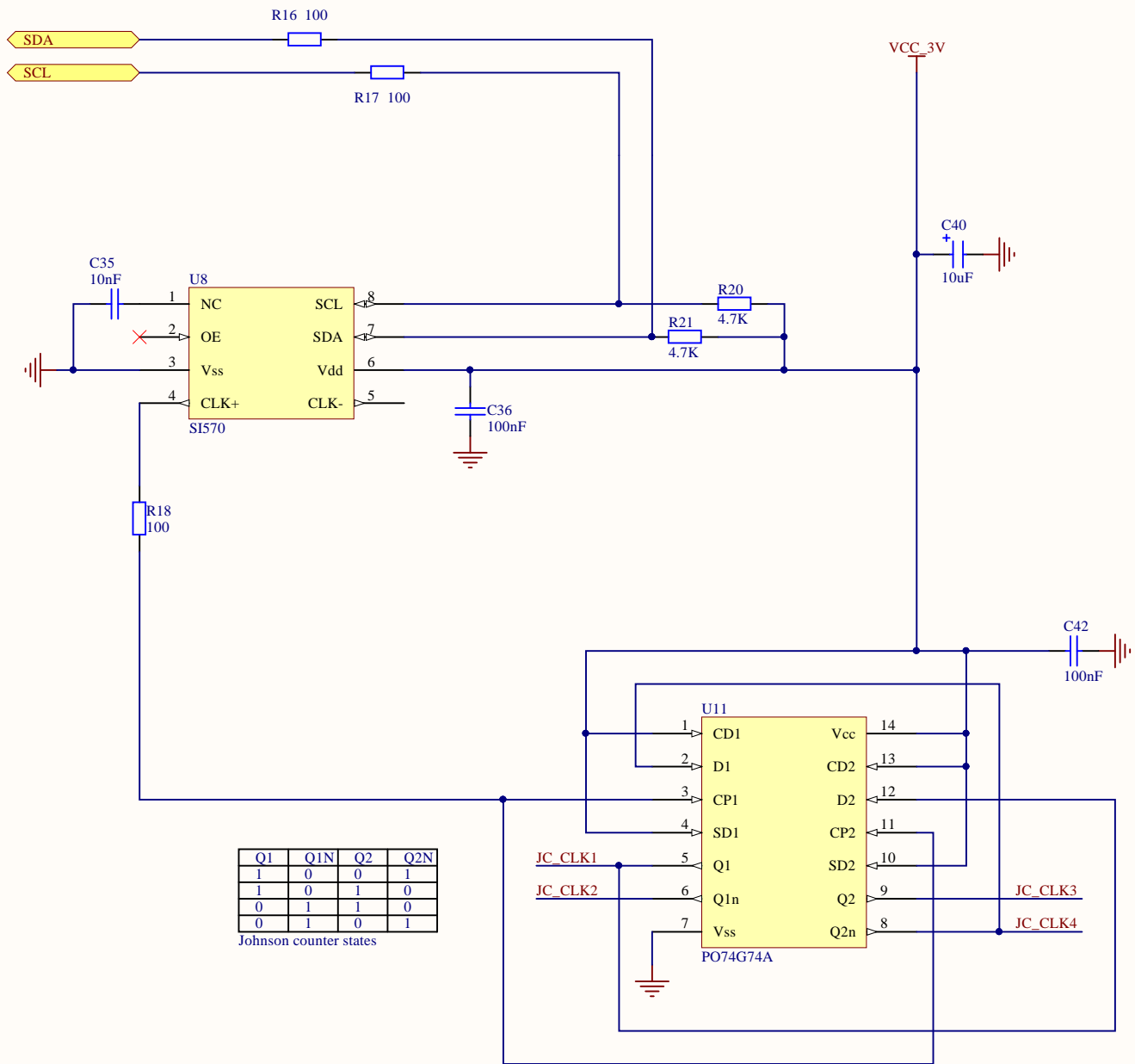


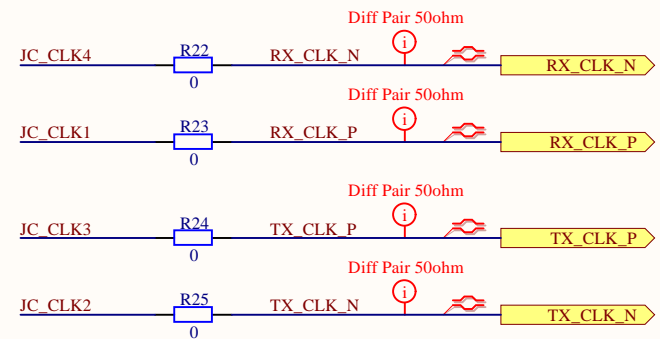
MODE	OE1	OE2	S1	S0	Switches	Filter
TX	1	0	0	0	2B1	20/30m
TX	1	0	0	1	2B2	40m
TX	1	0	1	0	2B3	15-10m
TX	1	0	1	1	2B4	80m
RX	0	1	0	0	1B1	20/30m
RX	0	1	0	1	1B2	40m
RX	0	1	1	0	1B3	15-10m
RX	0	1	1	1	1B4	80m





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

Johnson counter states



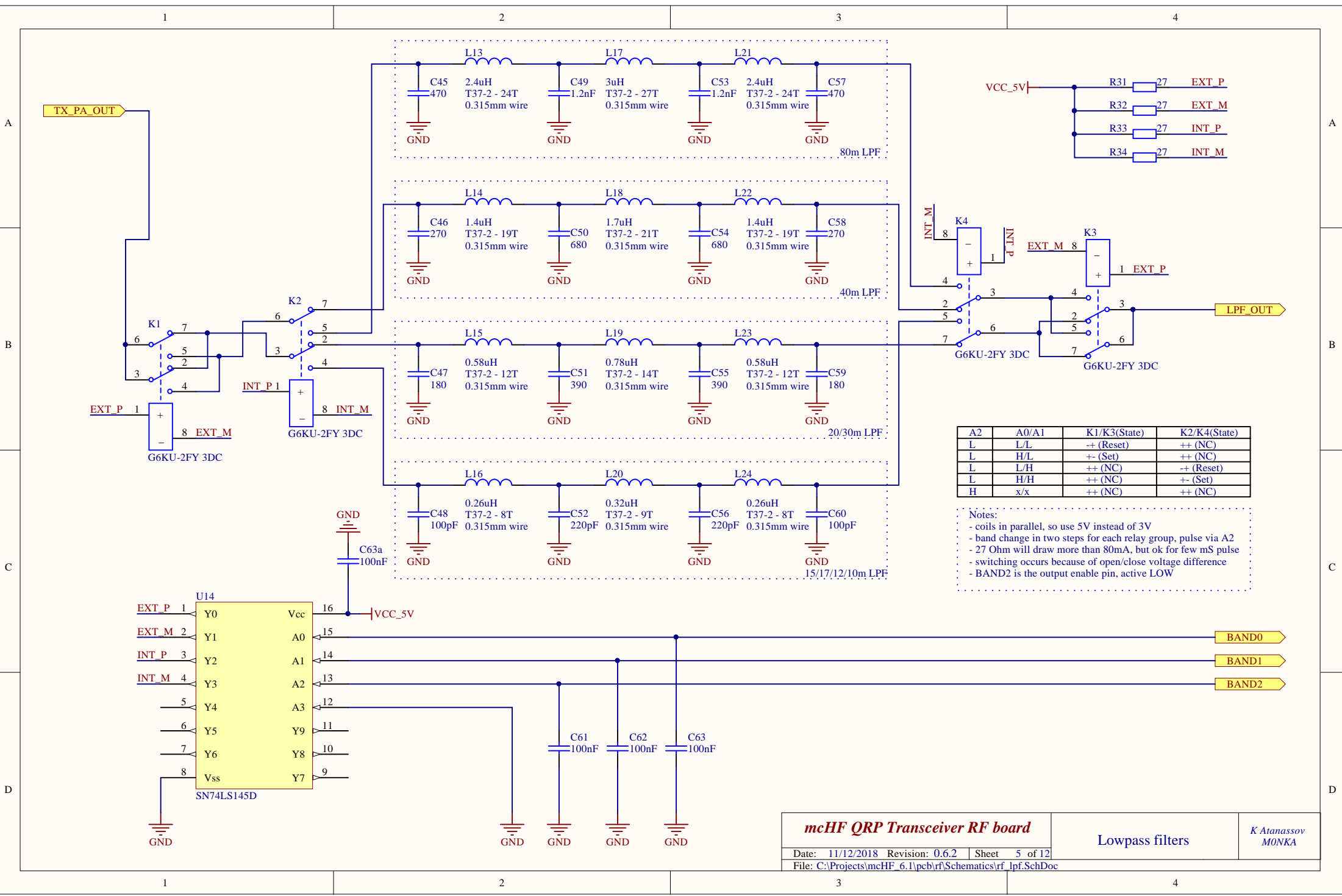
Clock lines are 90 deg diff, not 180
but using the rule to keep traces impedance the same

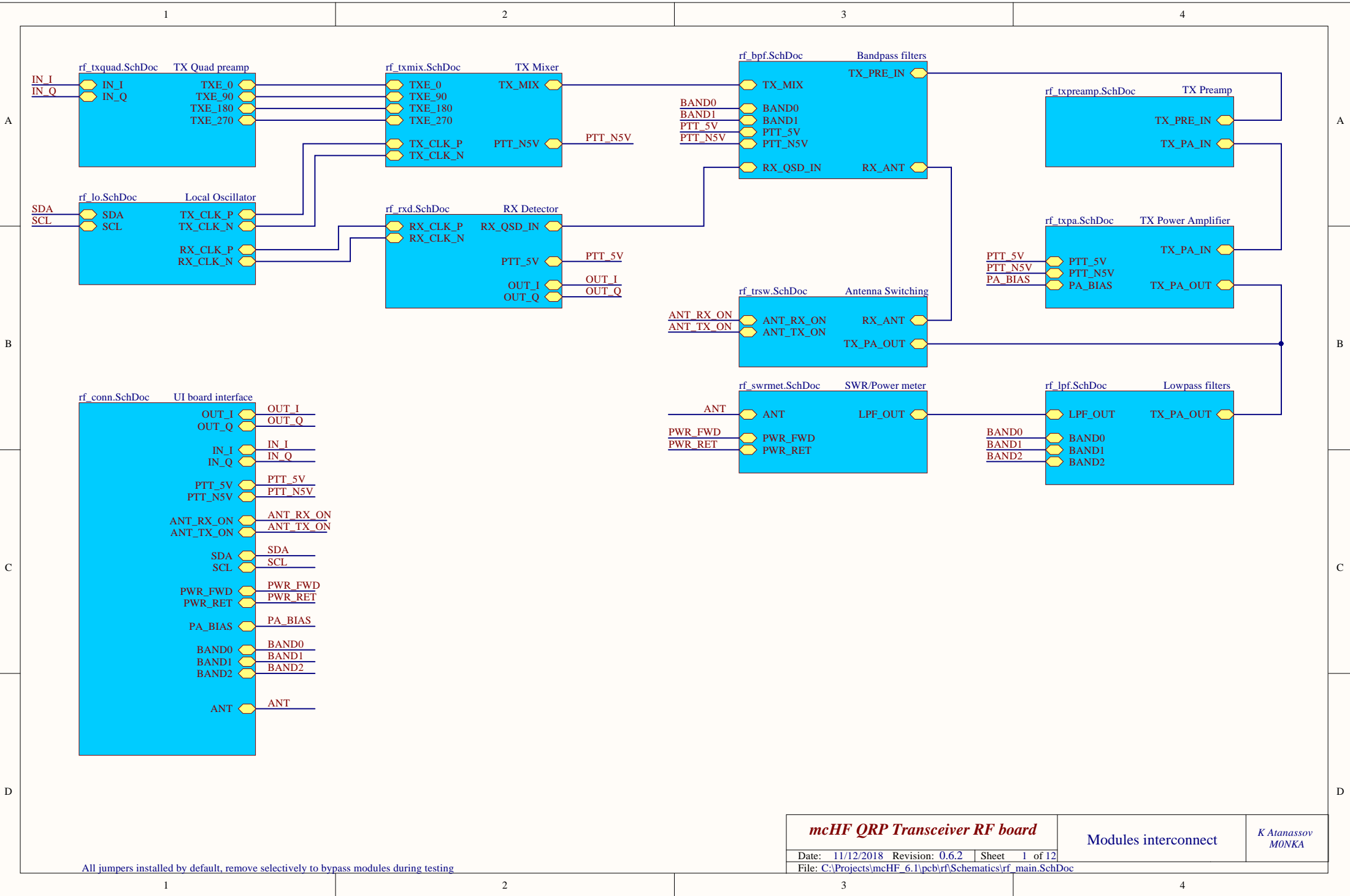
S1	S0
1	1
1	0
0	0
0	1

RX clock

S1	S0
0	0
0	1
1	1
1	0

TX clock





All jumpers installed by default, remove selectively to bypass modules during testing

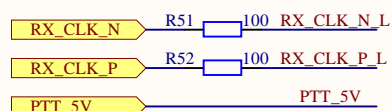
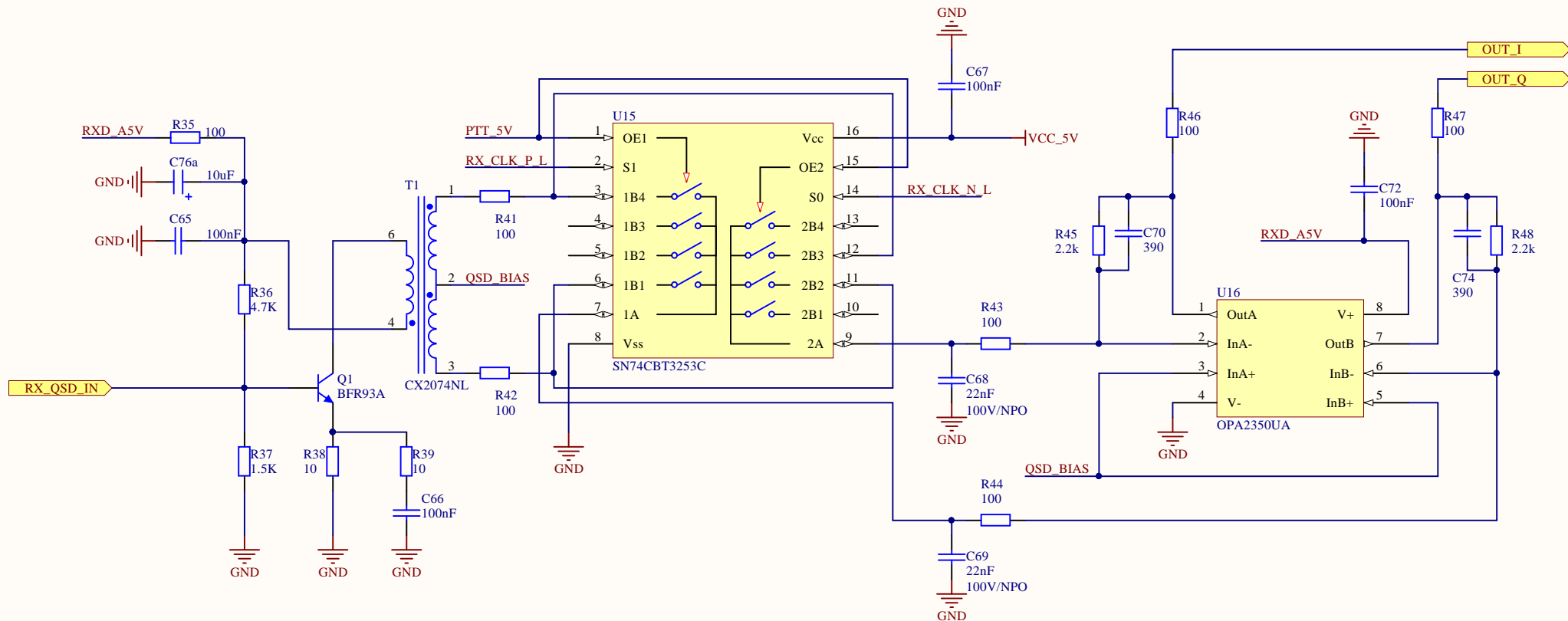
mcHF QRP Transceiver RF board

Modules interconnect

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Date: 11/12/2018 Revision: 0.6.2 Sheet 1 of 12

File: C:\Projects\mcHF_6.1\pcb\rf\Schematics\rf_main.SchDoc



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

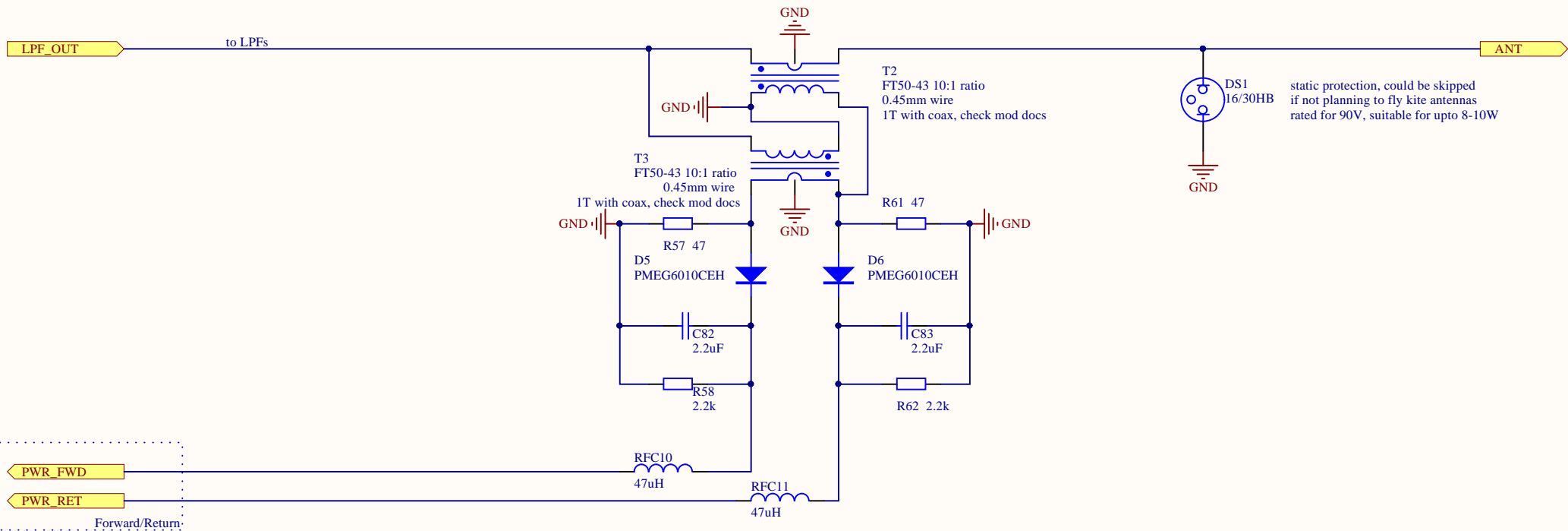
R51,R52 - damping resistors, as L.O divider and mixer on diff power rails could be replaced with jumpers if one feels they are not needed

mcHF QRP Transceiver RF board

Date: 11/12/2018 Revision: 0.6.2 Sheet 6 of 12
File: C:\Projects\mcHF_6.1\pcb\rf\Schematics\rf_rxd.SchDoc

RX Detector

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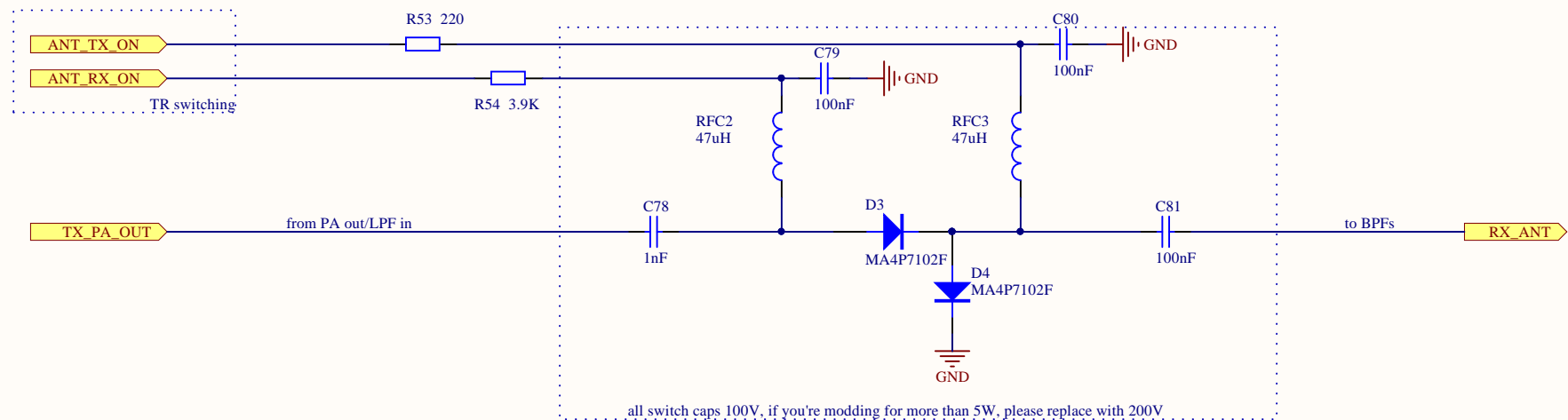
mcHF QRP Transceiver RF board

Date: 11/12/2018 Revision: 0.6.2 Sheet 12 of 12

File: C:\Projects\mcHF_6.1\pcb\rf\Schematics\rf_swrmet.SchDoc

SWR/PWR Meter

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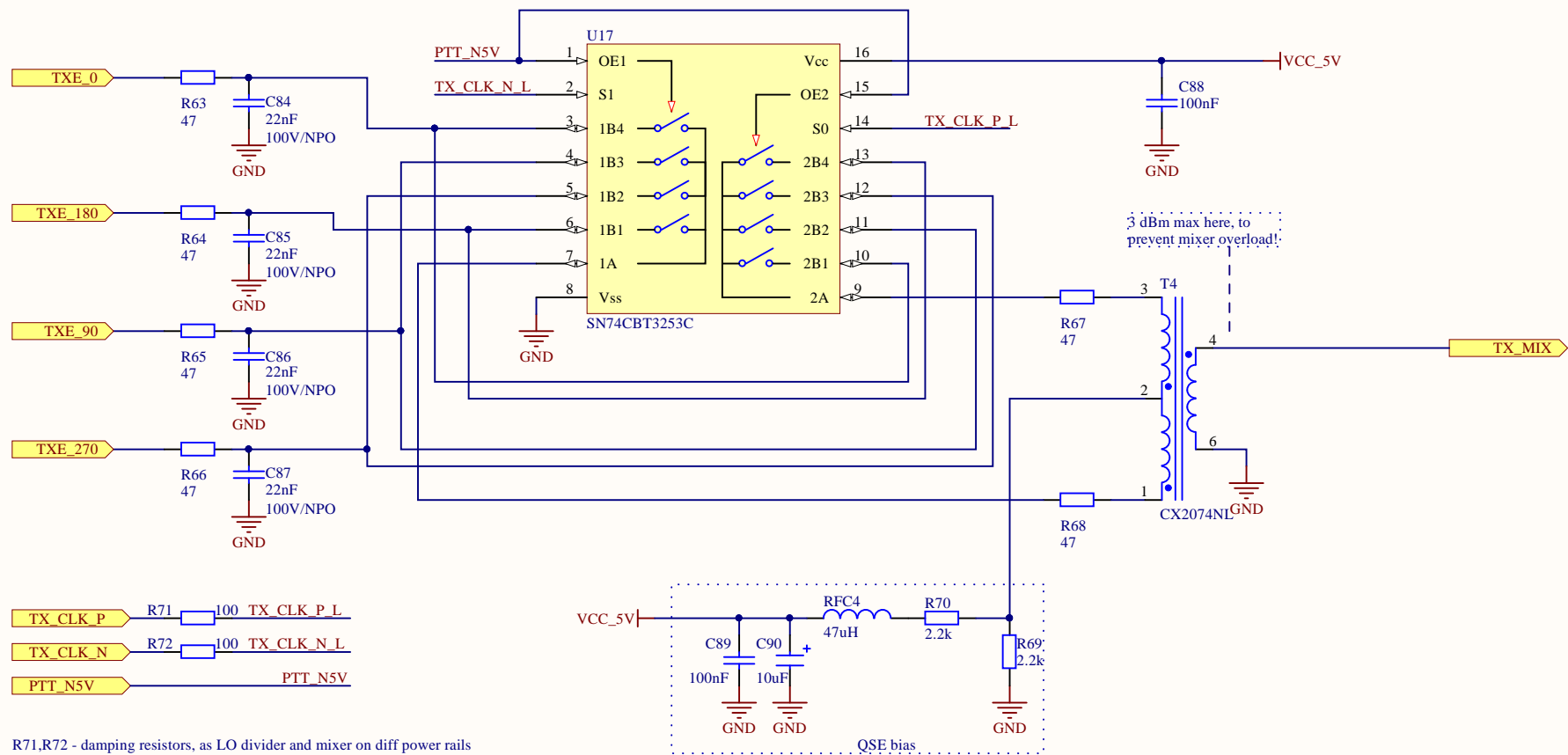


mcHF QRP Transceiver RF board

Date: 11/12/2018 Revision: 0.6.2 Sheet 7 of 12
File: C:\Projects\mcHF_6.1\pcb\rf\Schematics\rf_trsw.SchDoc

Antenna Switching

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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

Date: 11/12/2018 Revision: 0.6.2 Sheet 8 of 12
File: C:\Projects\mcHF_6.1\pcb\rf\Schematics\rf_txmix.SchDoc

TX Mixer

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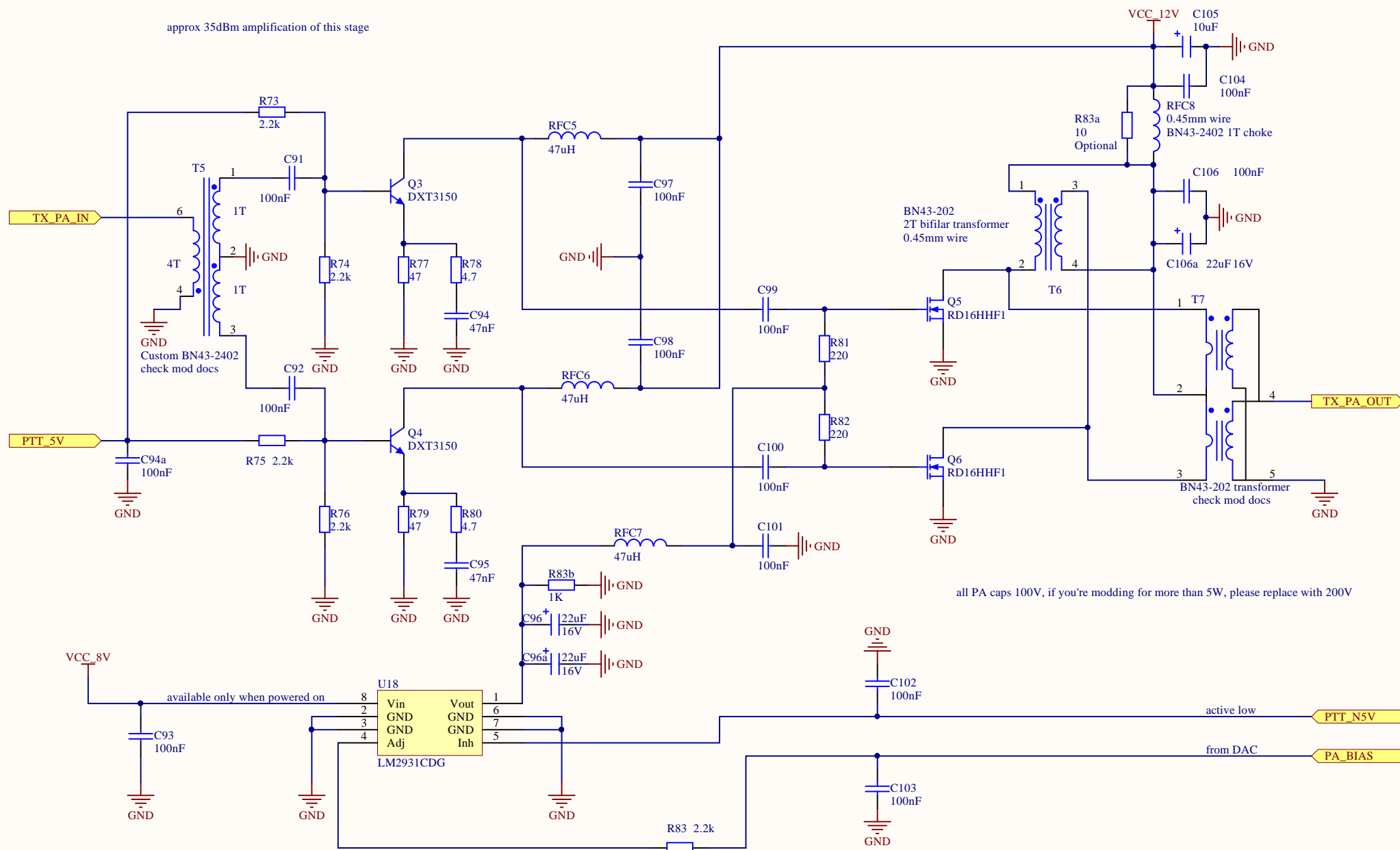
1

2

3

4

approx 35dBm amplification of this stage



1

2

3

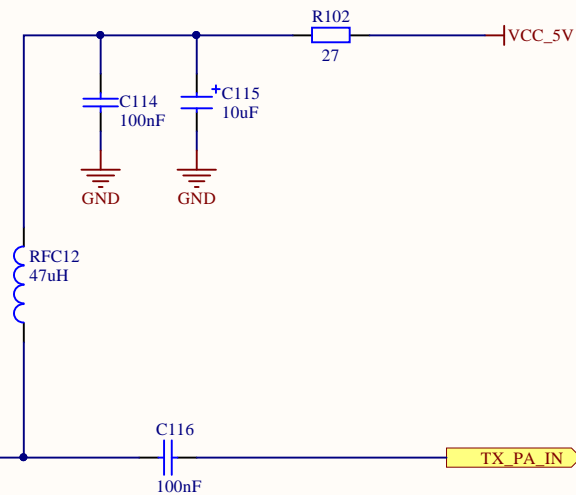
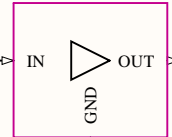
4

TX_PRE_IN

C113
100nF

Could skip installing this cap, but would
be a trouble if bypassing the module

U20 HMC482ST89E



Gain limited to 10dB via biasing resistor R102

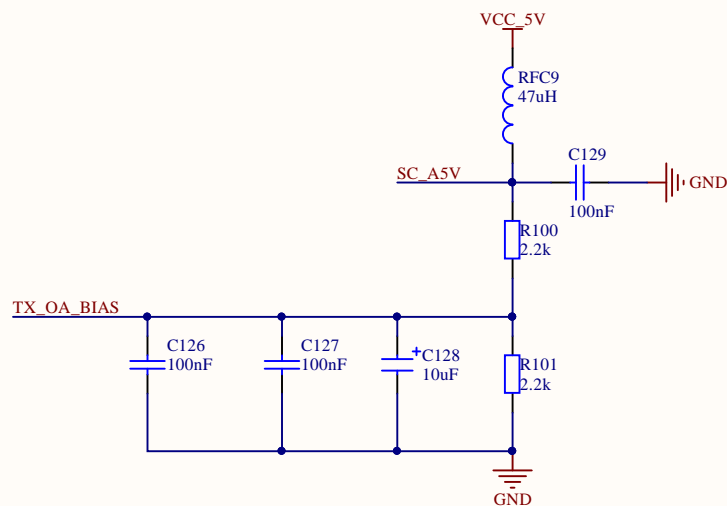
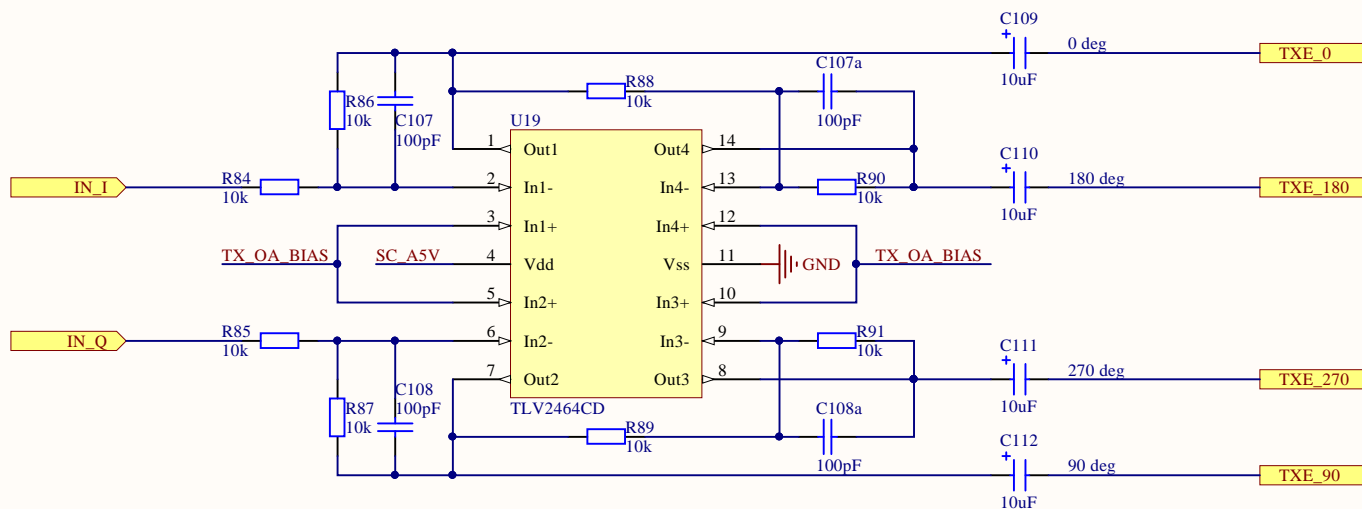
mcHF QRP Transceiver RF board

Date: 11/12/2018 Revision: 0.6.2 Sheet 11 of 12

File: C:\Projects\mcHF_6.1\pcb\rf\Schematics\rf_txpreamp.SchDoc

TX RF preamp

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mcHF QRP Transceiver RF board

Date: 11/12/2018 Revision: 0.6.2 Sheet 10 of 12

File: C:\Projects\mcHF_6.1\pcb\rf\Schematics\rf_txquad.SchDoc

TX Quad preamp

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