

Sheet: Tayloe Detector

File: tayloe-detector.sch

Sheet: BPF40

File: bpf40.sch

Sheet: BPF20

File: bpf20.sch

== EXTERNAL COMPONENTS ==

- 0802 I2C LCD: connect to 5V_DIGITAL, GND and to the I2C bus
- "VOL" 10K pot, connect to J5
- "EAR" socket: connect to J6 through 220u capacitors
- "KEY" socket: connect to KEY_DIT_B12, KEY_DAH_B13
- "FREQ" and "CLAR" rotary encoders
- "LOCK", "FAST", "BAND", "KEYER", "CLAR" buttons
- ON/OFF switch
- DC socket
- Antenna connector

For more details see the schematic.

FREQ_ROT_A8
FREQ_ROT_B_A9
CLAR_ROT_A15
CLAR_ROT_B_B3

LOCK_BTN_A10
FAST_BTN_B15
BAND_BTN_B14
KEYER_BTN_A7
CLAR_BTN_B1

KEY_DIT_B12
KEY_DAH_B13

Sheet: Audio Phase Shift

File: audio-phase-shift.sch

Sheet: BPF30

File: bpf30.sch

Sheet: BPF17

File: bpf17.sch

Sheet: Active Filter

File: active-filter.sch

Sheet: AF Amplifier

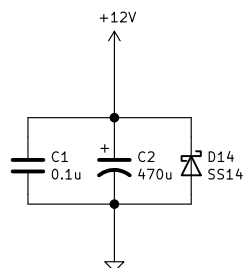
File: af-amplifier.sch

Sheet: Power Amplifier

File: power-amplifier.sch

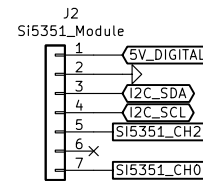
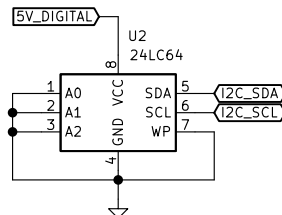
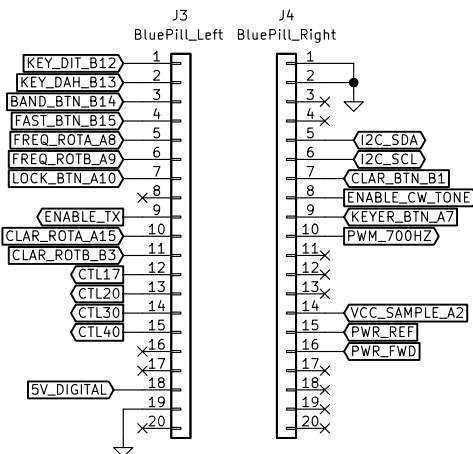
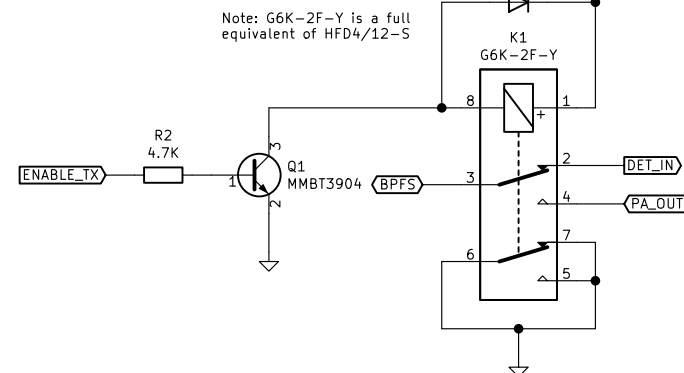
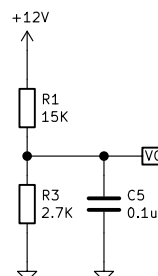
Sheet: SWR Bridge

File: swr-bridge.sch

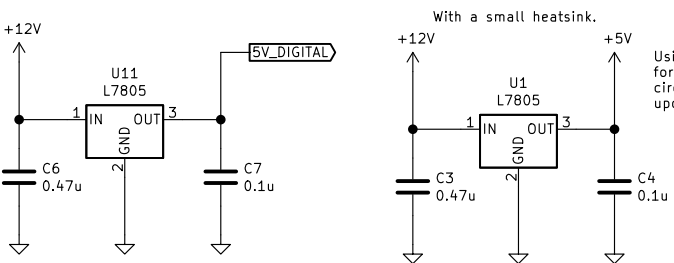
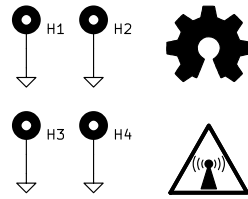


<- Reverse polarity protection.
Use with an external fuse.

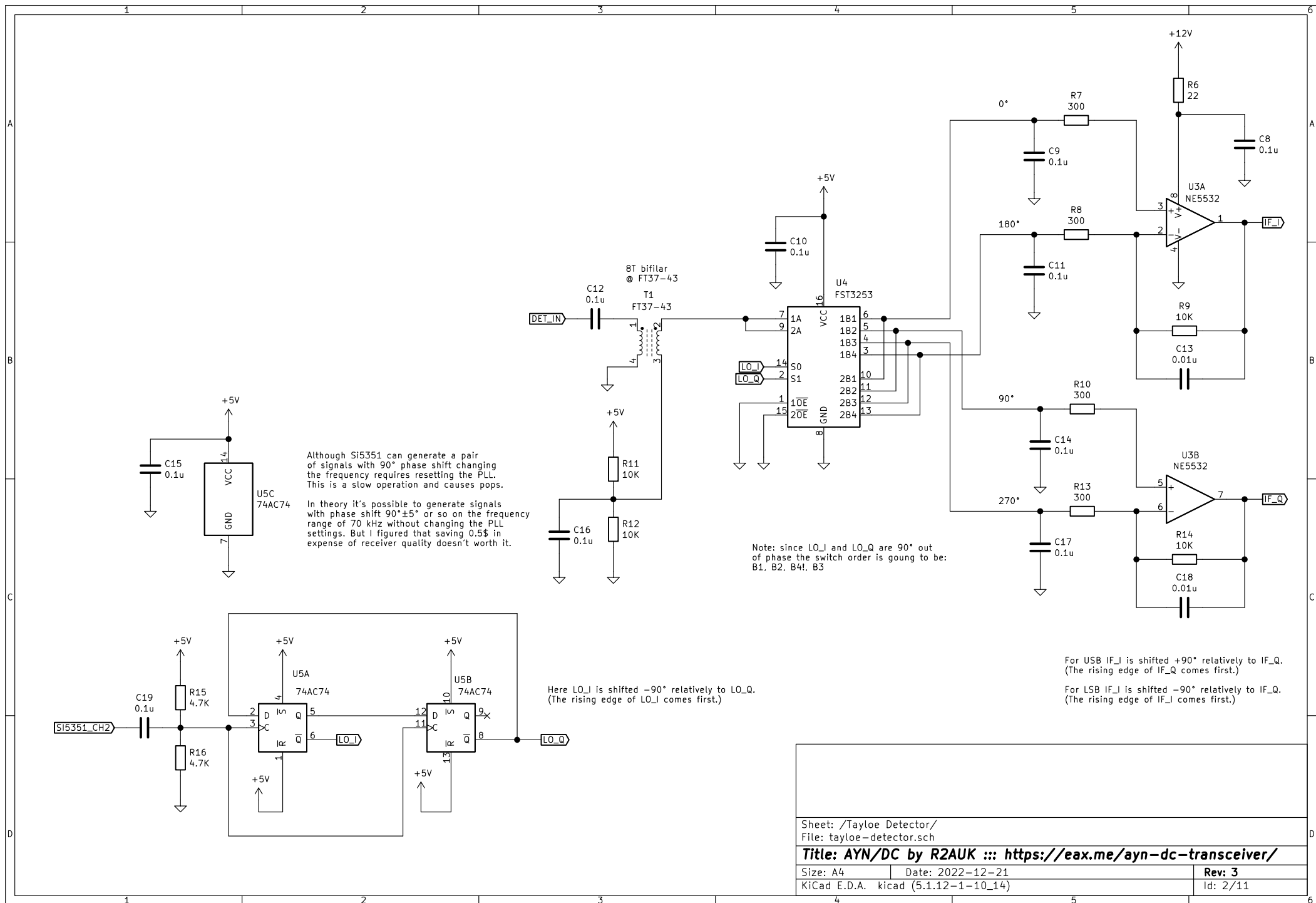
Also consider soldering the diode to the DC jack instead so it would be easier to replace if necessary.



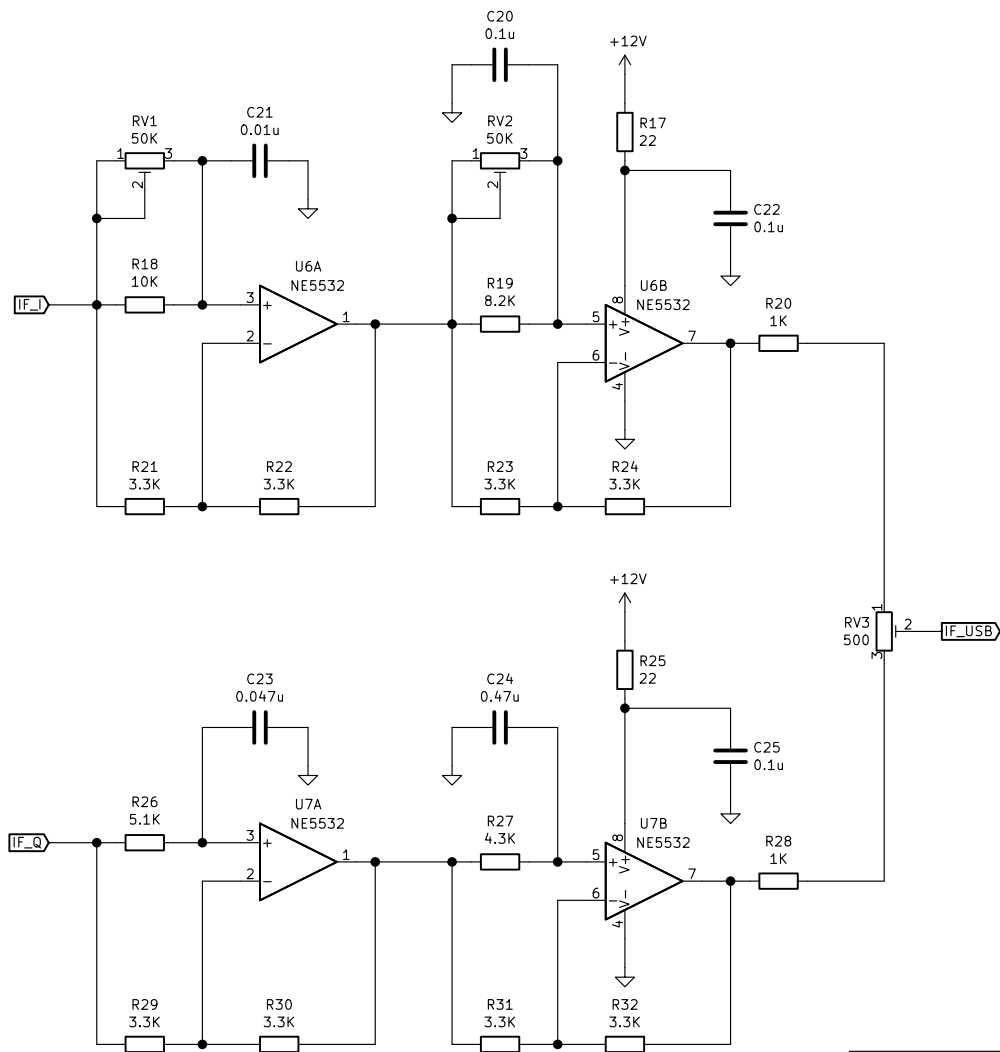
CH0: CW
CH1: Calibration
CH2: LO x 4



Sheet: /		
File: ayn-dc.sch		
Title: AYN/DC by R2AUK ::: https://eax.me/ayn-dc-transceiver/		
Size: A4	Date: 2022-12-21	Rev: 3
KiCad E.D.A. kicad (5.1.12-1-10_14)	Id: 1/11	



NC2030 / QCX style audio phase shift network.
This circuit is for receiving USB. For LSB swap I and Q.



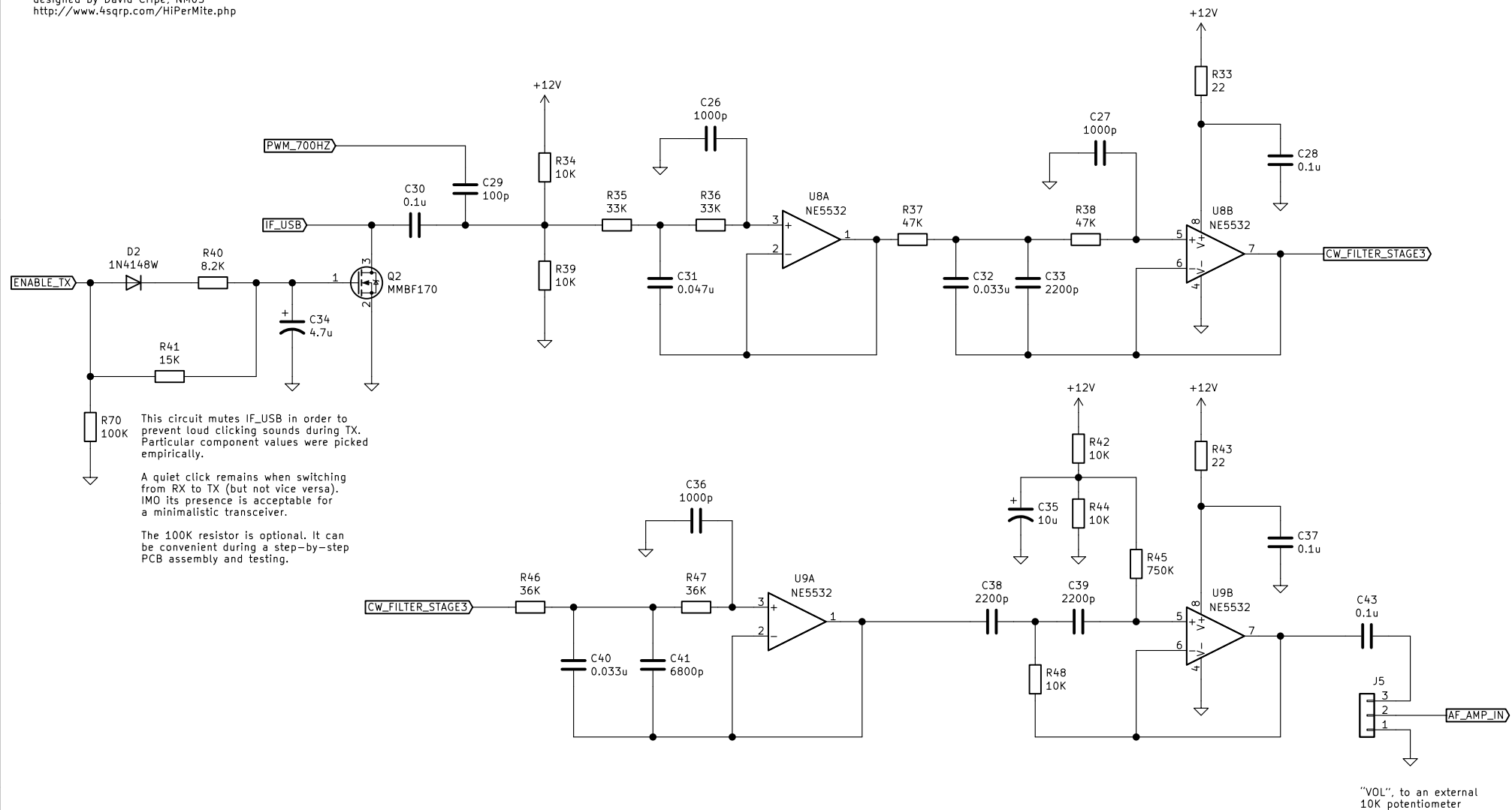
Sheet: /Audio Phase Shift/
File: audio-phase-shift.sch

Title: AYN/DC by R2AUK ::: <https://eax.me/ayn-dc-transceiver/>

Size: A4 Date: 2022-12-21
KiCad E.D.A. kicad (5.1.12-1-10_14)

Rev: 3
Id: 3/11

HI-PER-MITE CW filter
 designed by David Cripe, NM0S
<http://www.4sqrp.com/HiPerMite.php>

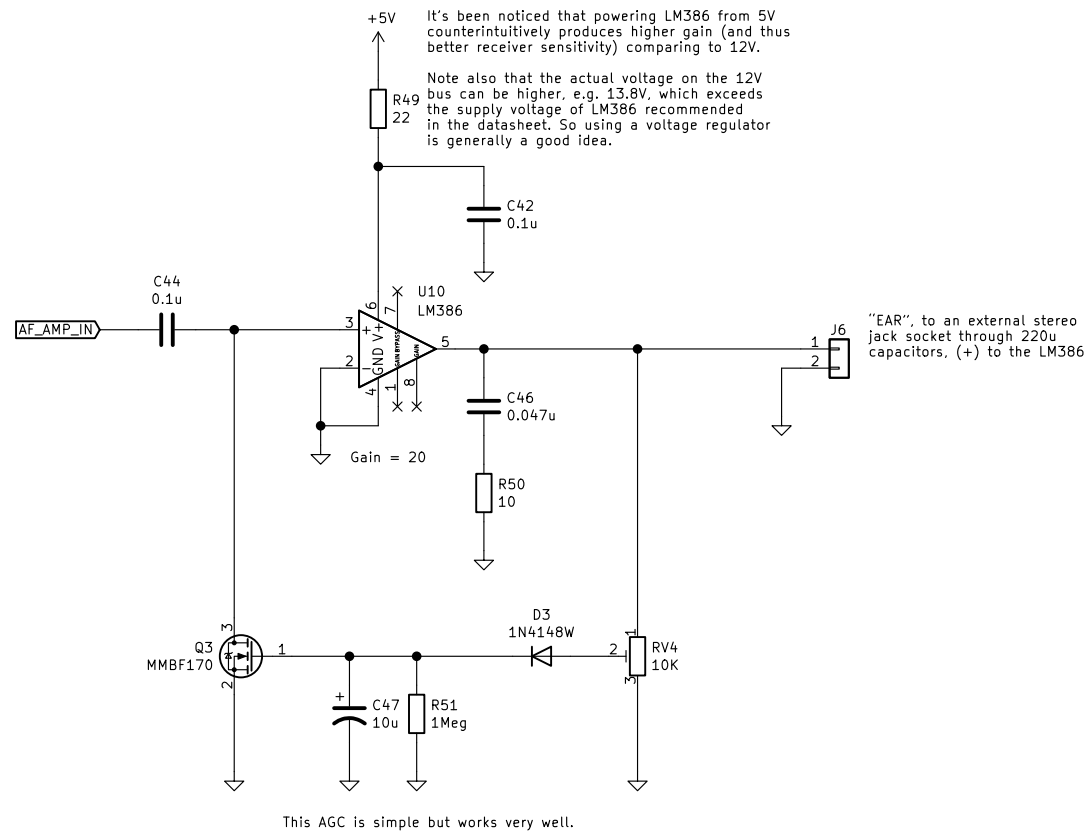


Sheet: /Active Filter/
 File: active-filter.sch

Title: AYN/DC by R2AUK ::: <https://eax.me/ayn-dc-transceiver/>

Size: A4 Date: 2022-12-21
 KiCad E.D.A. kicad (5.1.12-1-10_14)

Rev: 3
 Id: 4/11

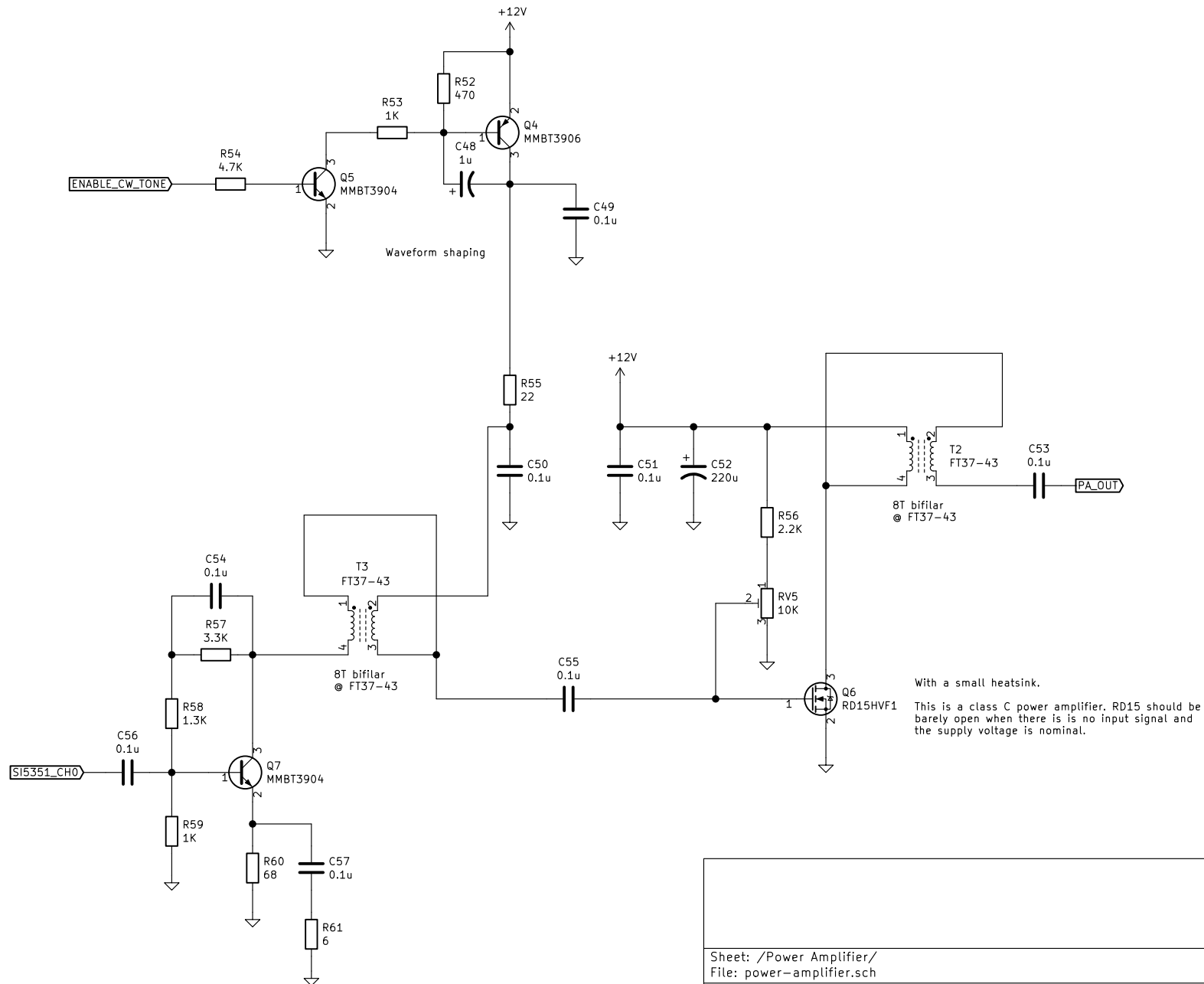


Sheet: /AF Amplifier/
File: af-amplifier.sch

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Size: A4 Date: 2022-12-21
KiCad E.D.A. kicad (5.1.12-1-10_14)

Rev: 3
Id: 5/11



Sheet: /Power Amplifier/
File: power-amplifier.sch

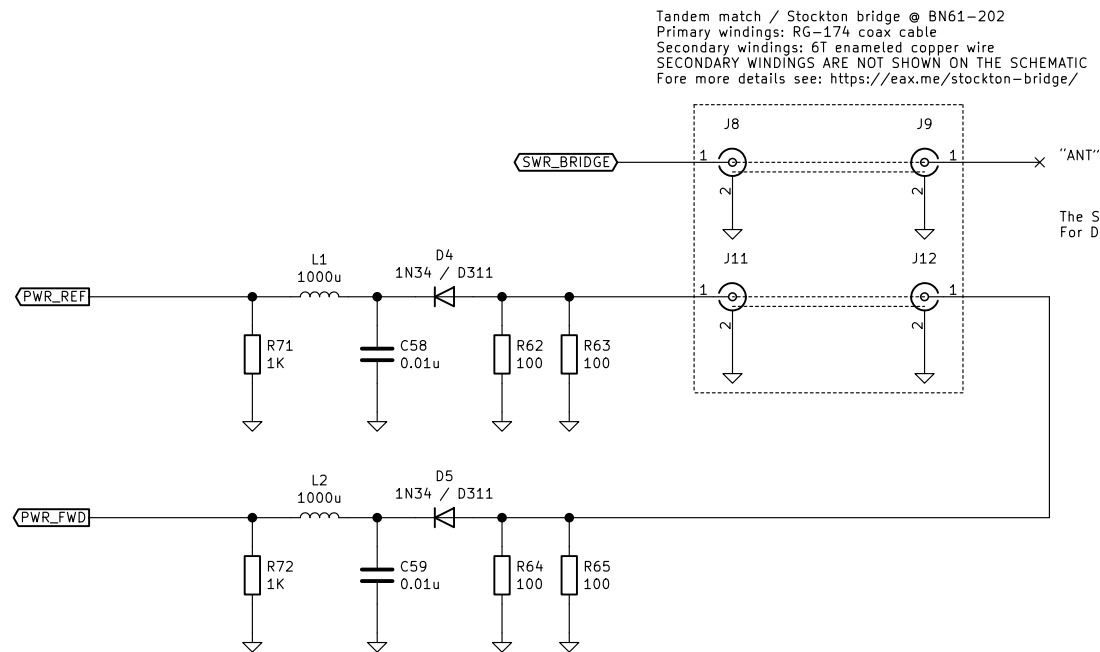
Title: AYN/DC by R2AUK ::: <https://eax.me/ayn-dc-transceiver/>

Size: A4 Date: 2022-12-21

KiCad E.D.A. kicad (5.1.12-1-10_14)

Rev: 3

Id: 6/11



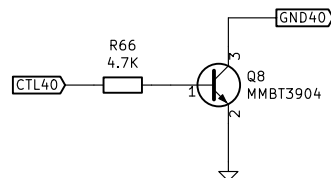
The diodes should be matched
 by the voltage drop.

Sheet: /SWR Bridge/
 File: swr-bridge.sch

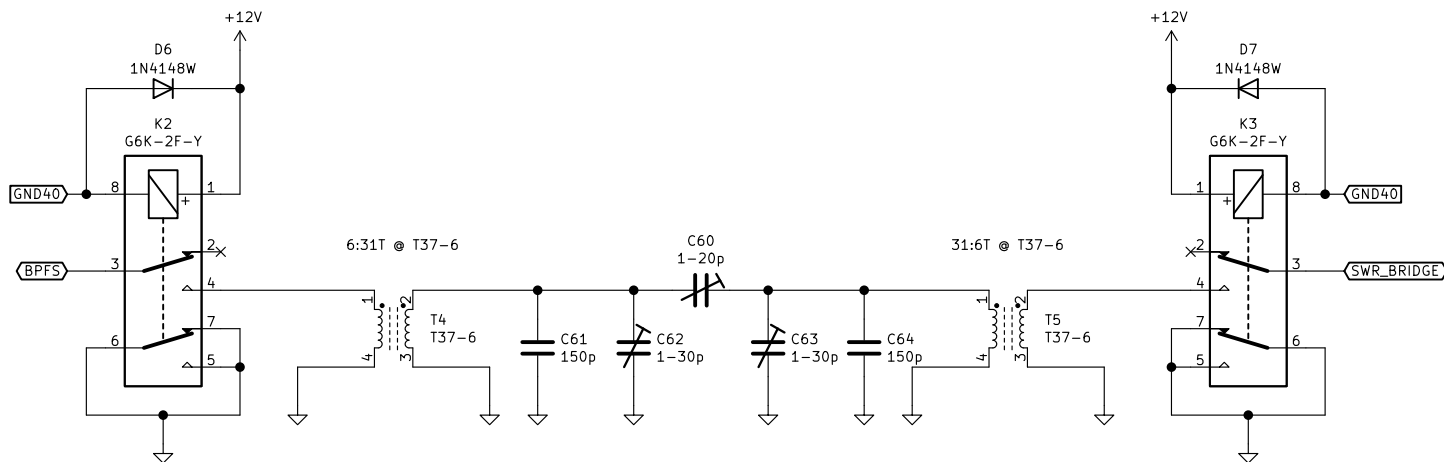
Title: AYN/DC by R2AUK ::: <https://eax.me/ayn-dc-transceiver/>

Size: A4 Date: 2022-12-21
 KiCad E.D.A. kicad (5.1.12-1-10_14)

Rev: 3
 Id: 7/11



BPFS are used for both RX and TX.
This is a double-tuned circuit.
Insertion losses are reasonably low,
about 0.6 dB, and the 2nd harmonic
is typically suppressed by 30+ dB,
so it works quite well in this particular
transceiver.

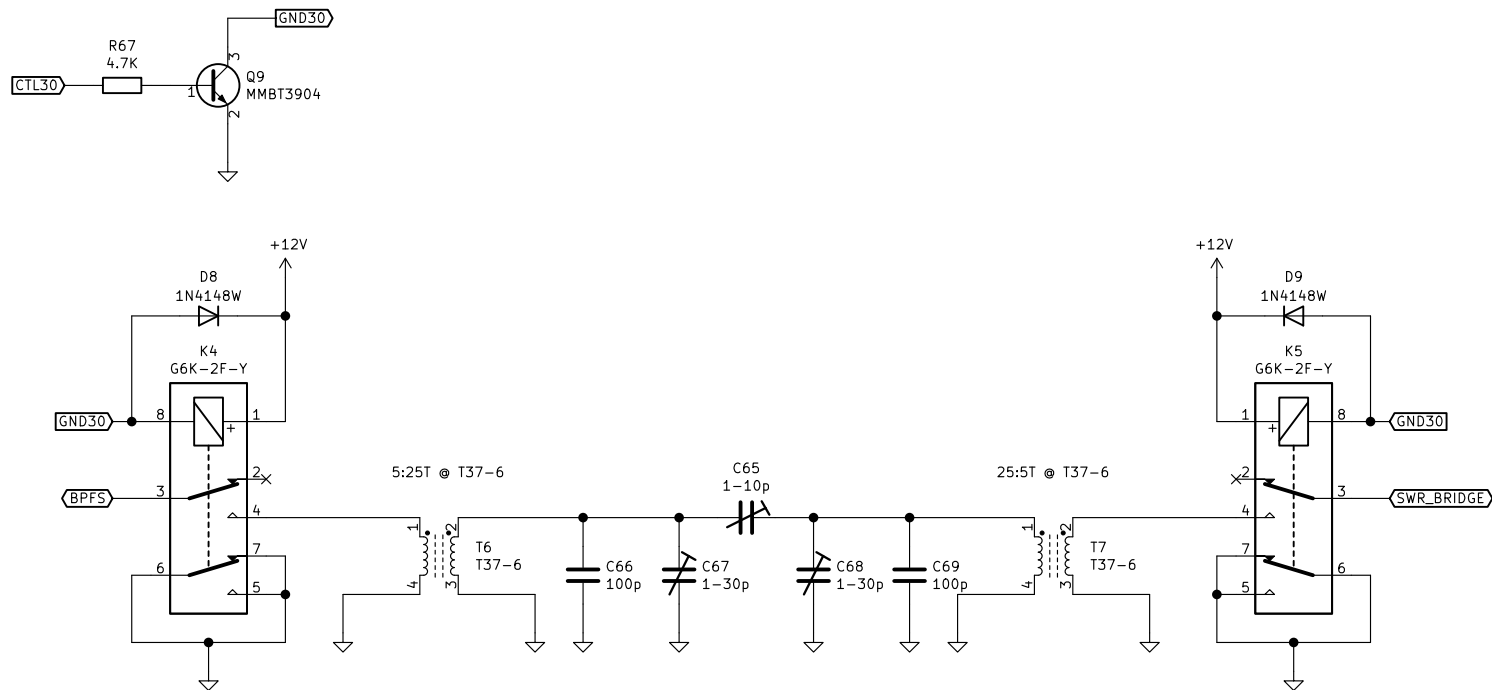


Sheet: /BPF40/
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Size: A4 Date: 2022-12-21
KiCad E.D.A. kicad (5.1.12-1-10_14)

Rev: 3
Id: 8/11

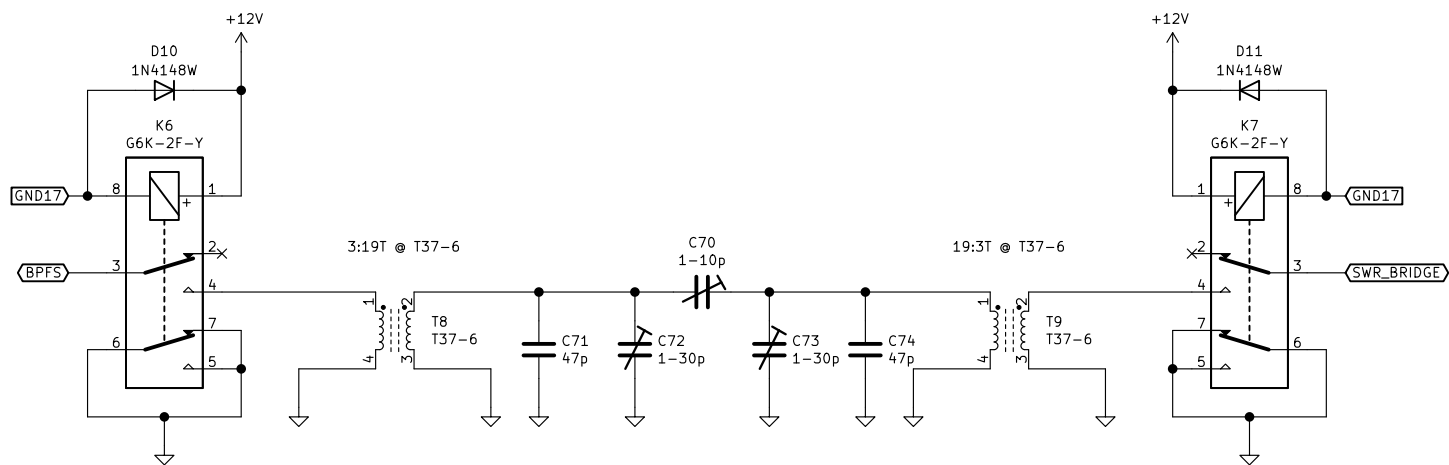
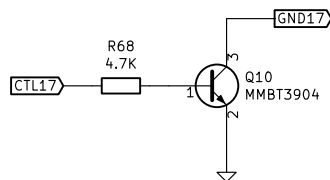


Sheet: /BPF30/
File: bpf30.sch

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Size: A4 Date: 2022-12-21
KiCad E.D.A. kicad (5.1.12-1-10_14)

Rev: 3
Id: 9/11

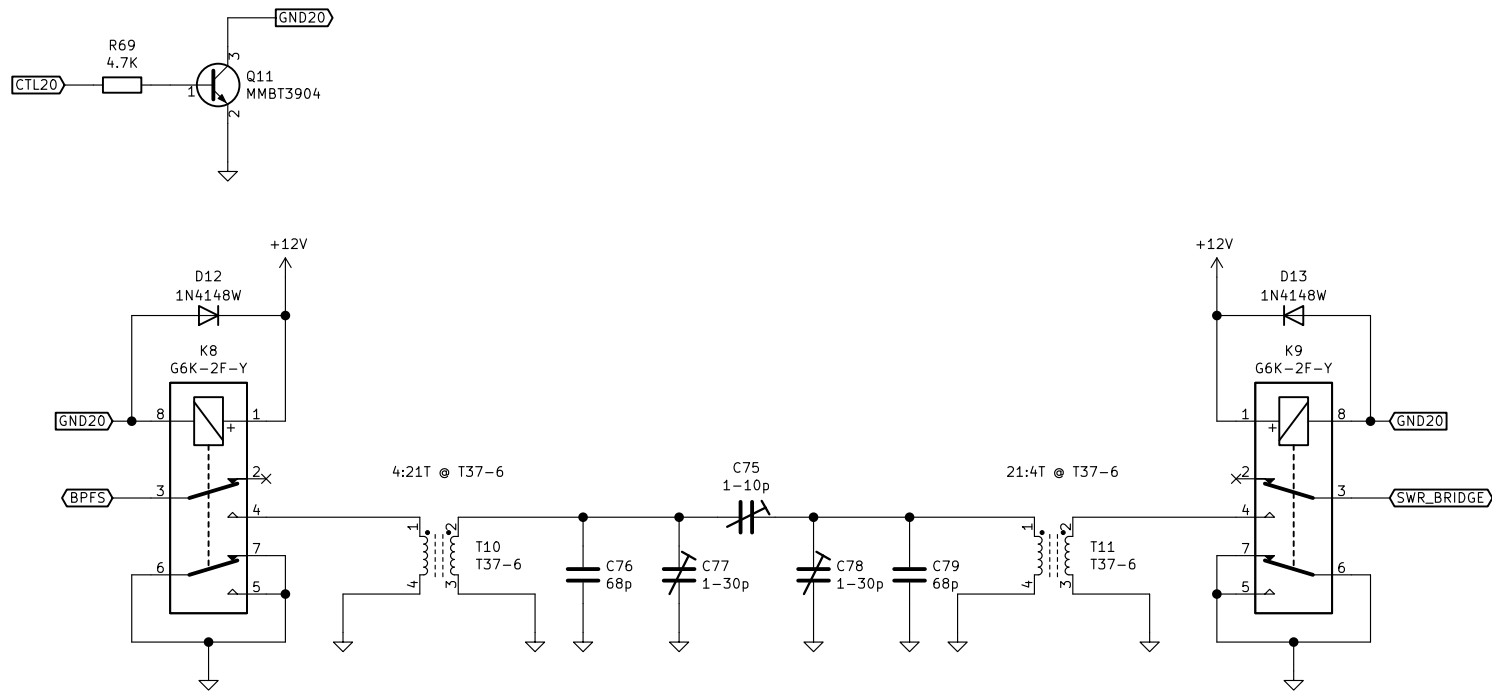


Sheet: /BPF17/
File: bpf17.sch

Title: AYN/DC by R2AUK ::: <https://eax.me/ayn-dc-transceiver/>

Size: A4 Date: 2022-12-21
KiCad E.D.A. kicad (5.1.12-1-10_14)

Rev: 3
Id: 10/11



Sheet: /BPF20/
File: bpf20.sch

Title: AYN/DC by R2AUK ::: <https://eax.me/ayn-dc-transceiver/>

Size: A4 Date: 2022-12-21
KiCad E.D.A. kicad (5.1.12-1-10_14)

Rev: 3
Id: 11/11