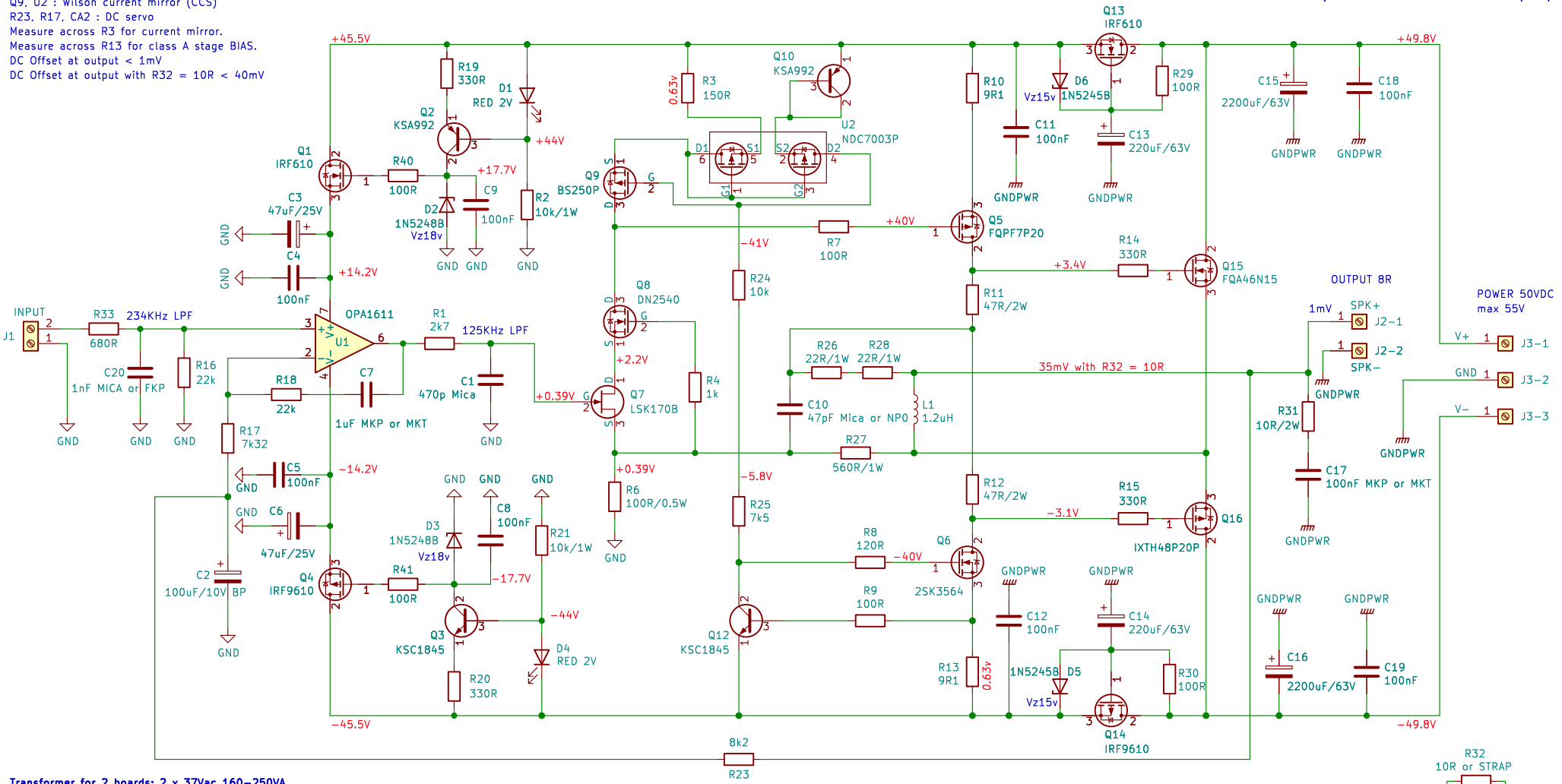

Transformer for 2 boards: 2 x 37Vac 160–250VA

L1 : 19.5 turns of a 1mm diameter copper insulated wire wound around a 8mm tube.
This will give you a coil of 10x20mm (see picture on github repository).

For input sensibility at 1.5v: R17 = 7.32k
For input sensibility at 0.750v: R17 = 3.3k
The value of R25 depends on the input voltage (42v = 2K7, 50v = 7K5, 60v = 8k2).
Remember to take off the resistors of 1W and more from the PCB when you solder them.

U1 : OPA1611 (BIPOLAR) or OPA828 (JFET)
U2: NDC7003P or PJS6839
Q1, Q13 : IRF610
Q2, Q10 : KSA992
Q3, Q12 : KSC1845
Q4, Q14 : IRF9610
Q5 : FQP3P20, FQPF7P20 or IRF9610 (isolator)
Q6 : FQP3N30, 2SK3564 or IRF610 (isolator)
Q7 : LSK170B (TH) or JFE150 (SMD SOT23-5)
Q8 : DN2540 or DN2535
Q9, Q11 : BS250P or ZVP2106A
Q15 : FQA46N15, IXFH50N85X or IRFP240 (isolator)
Q16 : FQA36P15, IXTH48P20P or IRFP9240 (isolator)

100nF capacitor : Wima MKS2
1W resistor : Vishay PR01
2W resistor : Vishay CCF02 or PR02
D1, D4 : LED RED 2V TLHR5400
D2, D3 : 1N5248B
D5, D6 : 1N5245
C3, C6 : Nichicon UKZ1E470MPM
C13, C14 : Vishay MAL215058221E3
J1: KF127 or JST B2B-XH-A-GU

For resistor < 150R : sort then or use 1% range.
0.25W, 0.5W resistor : Vishay MRS25 or CCF07 or MB
R27 : 560R 1W 1% Ohmite WNB560FET or Vishay CMF60560R00JKR6
R26, R28 : 22R 1% 1W TE Connectivity H4P22RFZA
C1 : 470pF CDE CD15FD471JO3F or polystyrene capacitor.
C2 : Non polar capacitor Nichicon Muse UES1A101MPM.
C7 : 1uF Wima MKP2D041001N00JSSD or MKS4B041002C00JF00.
C10 : 47pF Mica CDE CD15ED470JO3 or ceramic NP0.
C15, C16 : 2200uF 63v Vishay MAL204858222E3
C17 : 100nF capacitor FKP3C031004C00JSSD or MKT1822410255.
C18, C19 : 0.1uF/160V MKP Vishay MKP1839410164
C20 : 1nF CD15FA102JO3 or FKP2C011001D00HSSD.
J2 and J3: FASTON 250 PCB connector (TE Connectivity 63849-1)

Q17 a QUAD405 audiophile approach

Modified by Stef for the Q17-Mini project
by eng. Tiberiu Vicol

Sheet: /
File: Q17-Mini.kicad_sch

Title: Q17-Mini Amplifier 2.x

Size: A4	Date: 2024-01-11	**Rev: 2.0.4**
KiCad E.D.A. kicad 7.0.8		Id: 1/1