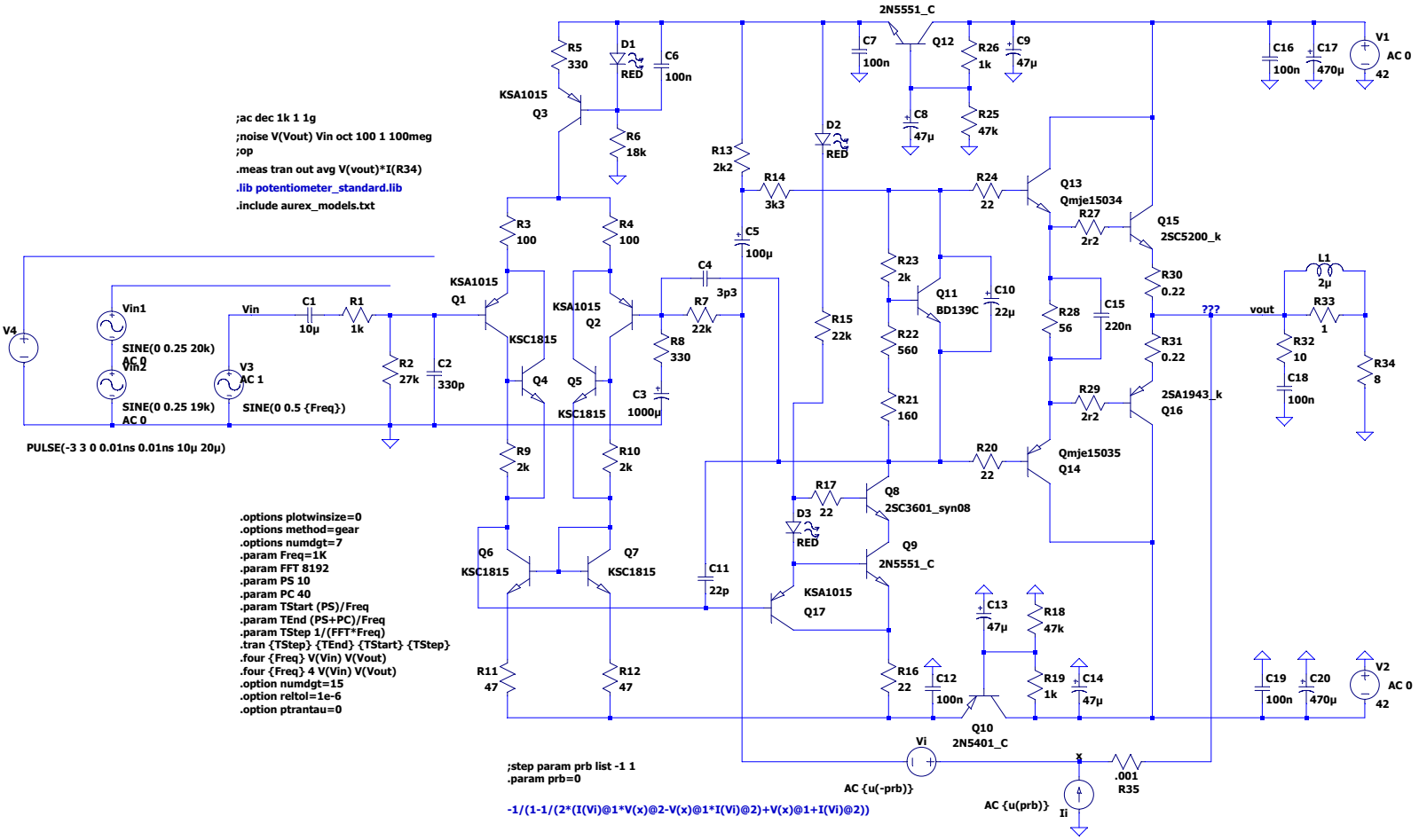
2N5551_C
R5
330
D1
RED
C6
100n
KSA1015
Q3
R6
18k
C7
100n
Q12
R26
1k
C9
47µ
C8
47µ
R25
47k
C16
100n
C17
470µ
V1
AC 0
42
;ac dec 1k 1 1g
;noise V(Vout) Vin oct 100 1 100meg
;op
.meas tran out avg V(vout)*I(R34)
.lib potentiometer_standard.lib
.include aurex_models.txt
R13
2k2
D2
RED
R14
3k4
R24
22
Q13
Qmje15034
R27
2r2
Q15
2SC5200_k
R3
100
R4
100
C5
100µ
C4
3p3
R23
2k
Q11
BD139C
C10
22µ
R30
0.22
L1
2µ
R28
56
C15
220n
R31
0.22
R33
1
R32
10
C18
100n
R34
8
R29
2r2
2SA1943_k
Q16
R22
560
R21
160
R20
22
Qmje15035
Q14
R15
22k
R17
22
D3
RED
Q8
2SC3601_syn08
Q9
2N5551_C
KSA1015
Q17
C11
22p
R9
2k
R10
2k
Q6
KSC1815
Q7
KSC1815
R11
47
R12
47
C13
47µ
R18
47k
R16
22
C12
100n
R19
1k
C14
47µ
Q10
2N5401_C
C19
100n
C20
470µ
V2
AC 0
42
Vi
AC {u(-prb)}
x
.001
R35
AC {u(prb)}
Ii
Vin1
SINE(0 0.25 20k)
AC 0
Vin2
SINE(0 0.25 19k)
AC 0
V4
PULSE(-3 3 0 0.01ns 0.01ns 10µ 20µ)
Vin
C1
10µ
R1
1k
R2
27k
C2
330p
V3
AC 1
SINE(0 0.5 {Freq})
KSA1015
Q1
KSC1815
Q4
KSA1015
Q2
Q5
KSC1815
R7
22k
R8
330
C3
1000µ
???
vout
.options plotwinsize=0
.options method=gear
.options numdgt=7
.param Freq=1K
.param FFT 8192
.param PS 10
.param PC 40
.param TStart (PS)/Freq
.param TEnd (PS+PC)/Freq
.param TStep 1/(FFT*Freq)
.tran {TStep} {TEnd} {TStart} {TStep}
.four {Freq} V(Vin) V(Vout)
.four {Freq} 4 V(Vin) V(Vout)
.option numdgt=15
.option reltol=1e-6
.option ptrantau=0
;step param prb list -1 1
.param prb=0
-1/(1-1/(2*(I(Vi)@1*V(x)@2-V(x)@1*I(Vi)@2)+V(x)@1+I(Vi)@2))