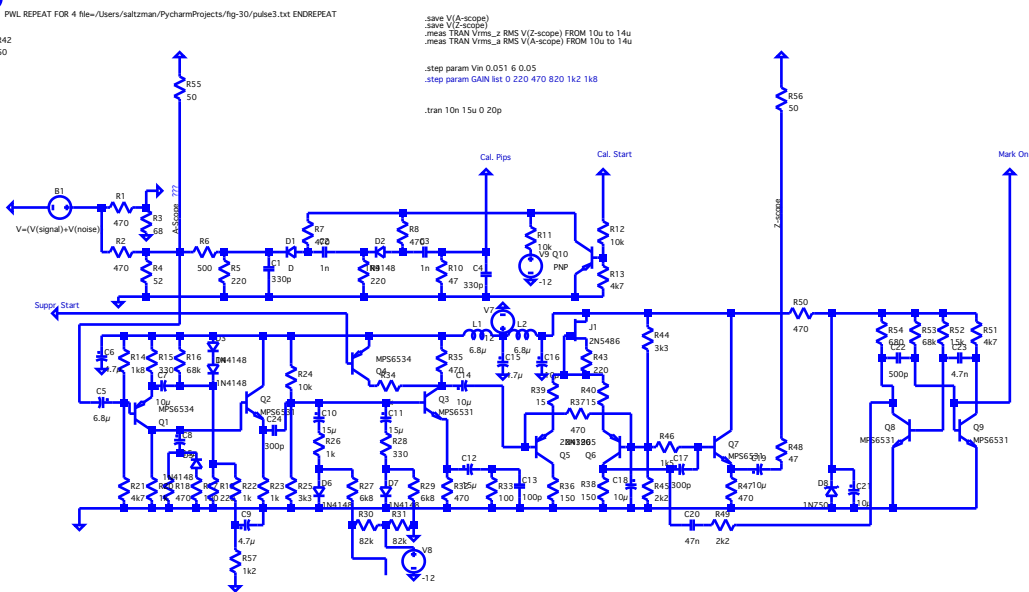
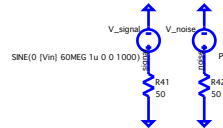


```

model 1M148 D(s=2.52n R=568 N=1.752 Cj=6p M=4 t1=20n iave=200m Vpk=75 mfg=OnSemi type=silicon)
MODEL 2M3905 PNP(B=1.41f RE=0 ISC=0 XT=3 BF=90.35 BR=5.502 KF=80m IRR=0 XTB=1.5 VAF=18.7 VAR=6.5 VJE=0.65
+ VJC=0.95 RB=0.15 RC=2.5 RB=10 CJE=8.063p CJC=9.728p XCC=0.75 FC=0.5 NF=1 NR=1 NE=1.5 NC=2 MJE=0.3677 MJC=0.5776 TF=179.3p TR=35.05n TT=0.4 VTF=4
+ XTF=8 EG=1.11 VCEO=40f KRATNG=200m MFG=NSC)
model MP56531 MPN(B=26.037 X=3 Egn=1.11 Vpk=90.7 BF=69.05K N=1.228 I=26.037 Ikt=2044 Xtb=1.5 Bv=1.027 Nc=2 Icr=0
+ R=5 Cje=11.018 Mjc=3783 Vjc=75 Fc=5 Cje=24.07p Mje=3641 Vje=75 Tc=235.2n Tf=466.4p Bf=0 Vtf=0 Xtf=0 Rb=10)
model MP56534 MPN(B=26.037 X=3 Egn=1.11 Vpk=115.7 BF=175.2 N=1.831 I=69.879 Ikt=1103 Xtb=1.5 Bv=3.637 Nc=2
+ Icr=0 Icr=71.5 Cje=14.76p Mjc=5383 Vjc=75 Fc=5 Cje=19.82p Mje=3357 Vje=75 Tc=112.6n Tf=761.3p Tf=65 Vtf=5 Xtf=1.7 Rb=10)
model 2N5484 NPN(B=25p Alpha=1 E=4 Vje=80 Vjcr=5 Vjctc=3m Beta=4 On Lambda=10m BetaIcr=5 Rb=10 Rb=10 Cje=6p Cjcr=6p Ks=17 mfg=Siliconix)
model 2N4126 PNP(B=141f Xb=3 Egn=1.11 Vpk=18.7 BF=203.7 N=1.5 I=9=0 Ikt=80m Xtb=1.5 Bv=4.924 Nc=2 Icr=0 R=2.5 Cje=9.728p
+ Mjc=5776 Vjc=75 Fc=5 Cje=8.063p Mje=3677 Vje=75 Tc=33.23n Tf=179.3p Tf=4 Vtf=4 Xtf=6 Rb=10 Rb=10 Vjcr=25 Icrating=200m mfg=Fairchild)

```



```

save V(A-scope)
save V(Z-scope)
meas TRAN Vrms_z RMS V(Z-scope) FROM 10u to 14u
meas TRAN Vrms_a RMS V(A-scope) FROM 10u to 14u

step param Vin 0.051 6 0.05
step param GAIN list 0 220 470 820 1k2 1k8

.tran 10n 15u 0 20p

```

PWL REPEAT FOR 4 M=Users/saltzman/PycharmProjects/fg-30/pulse3.txt ENDPREPEAT