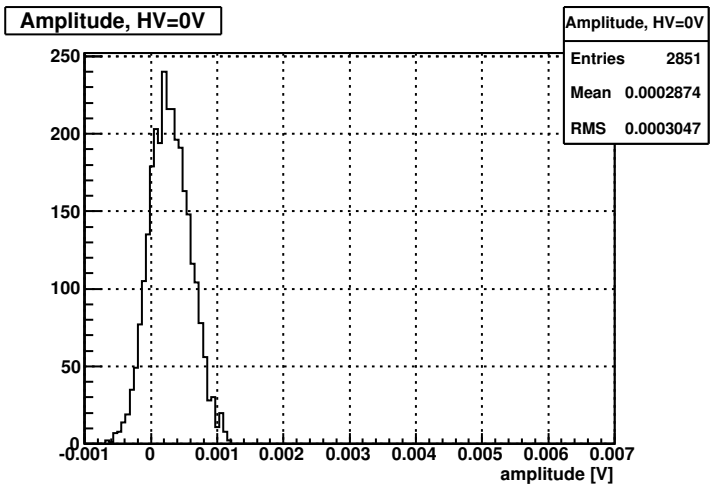
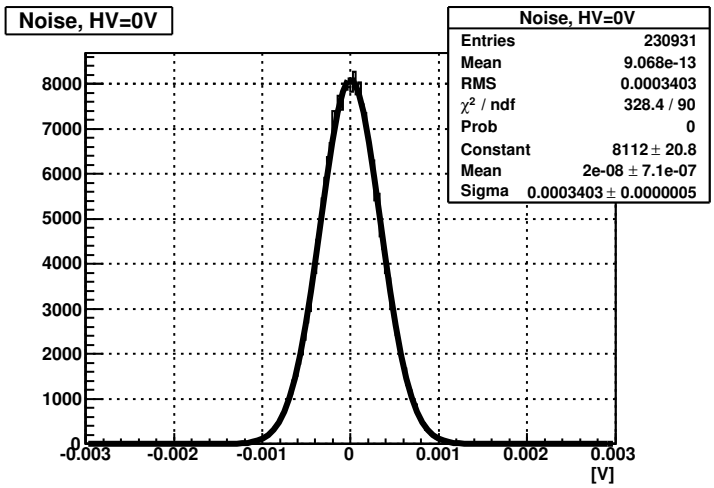
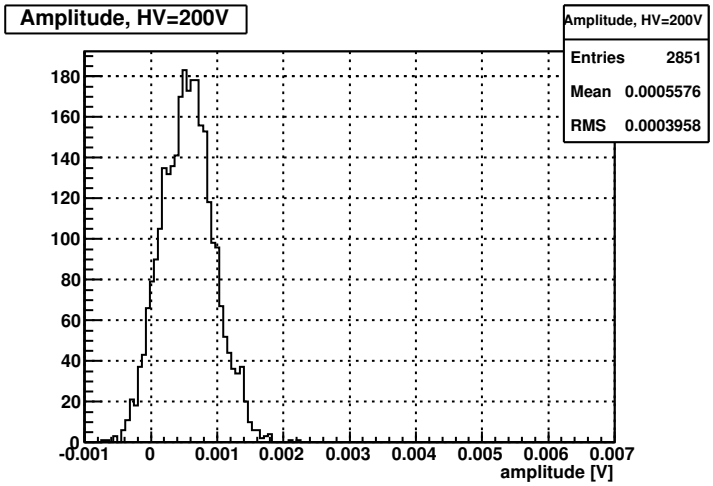
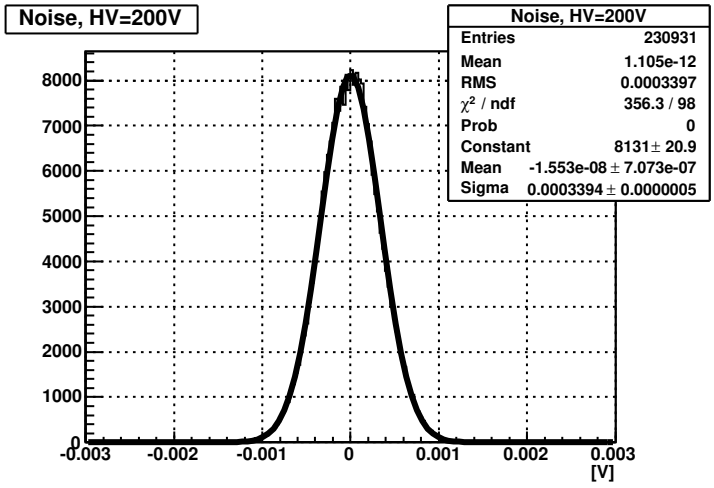
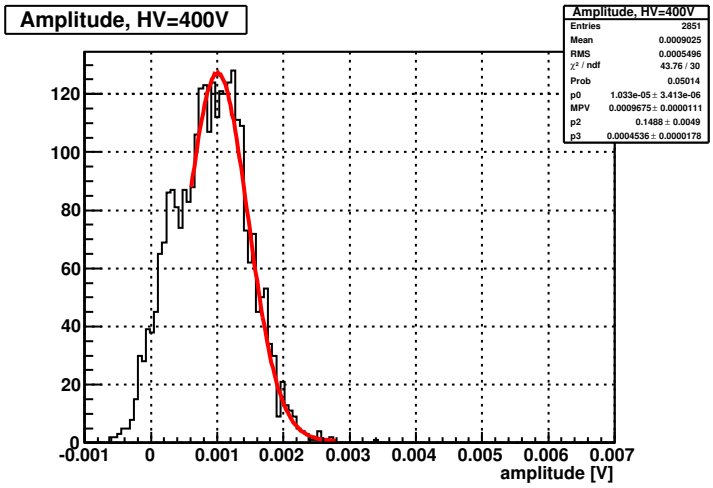
Fotec Box 408, (A382-11 and A382-8), Measurement 1 (BWL 200MHz), resistor changed 150Ω → 130Ω

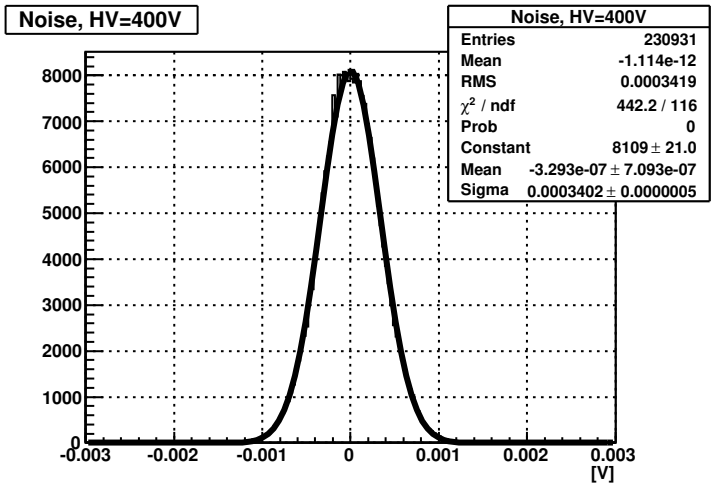


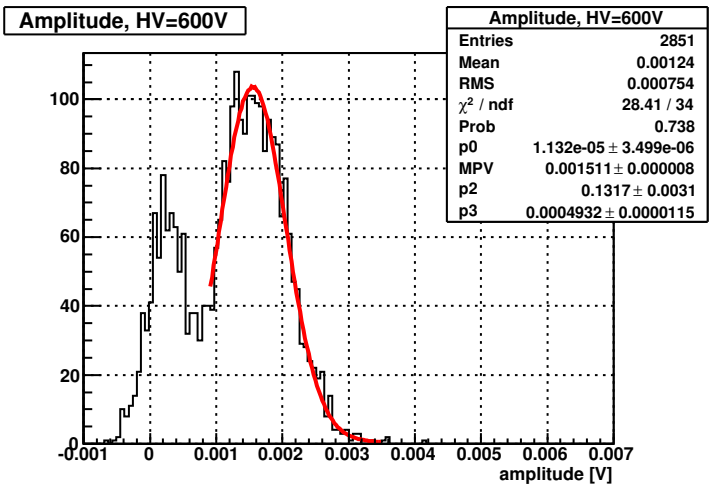


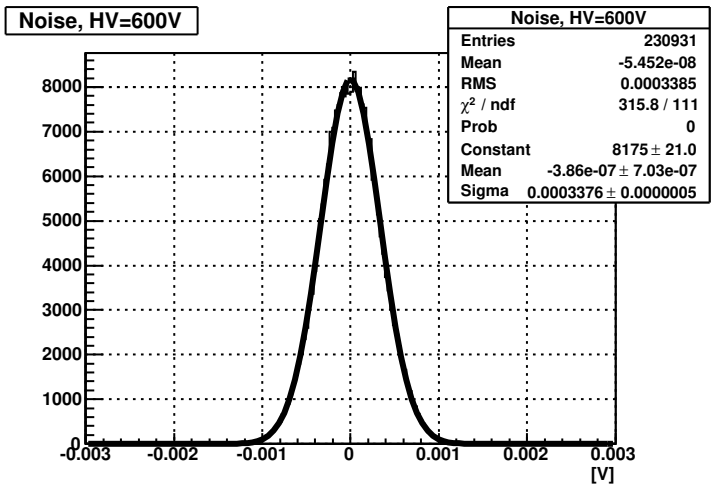


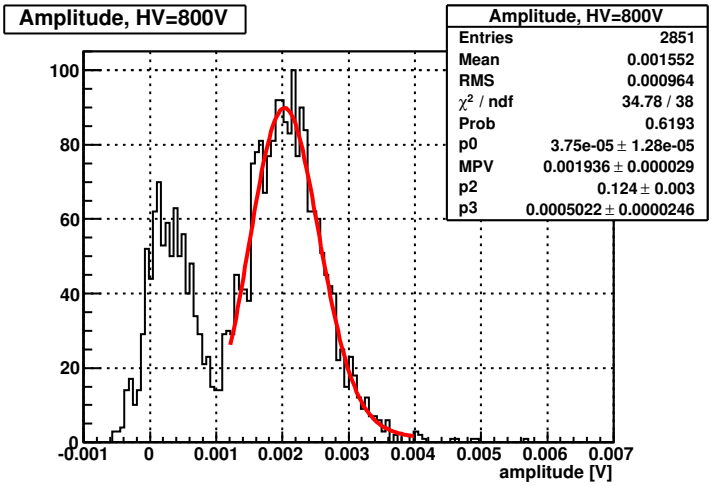


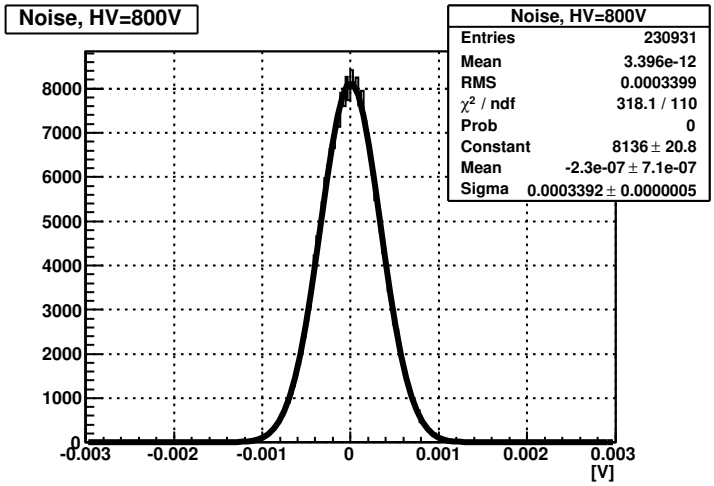


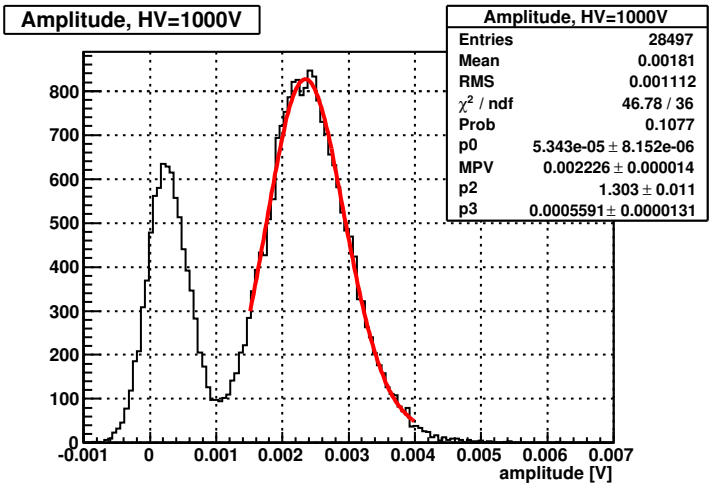


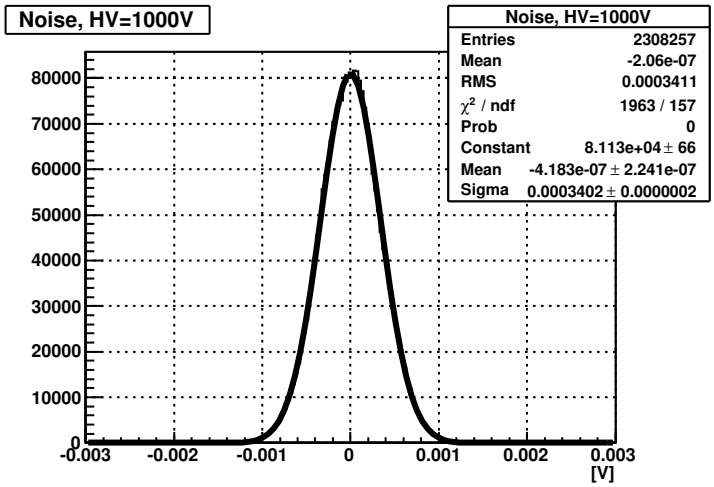

Amplitude, HV=600V
Amplitude, HV=600V
Entries 2851
Mean 0.00124
RMS 0.000754
χ² / ndf 28.41 / 34
Prob 0.738
p0 1.132e-05 ± 3.499e-06
MPV 0.001511 ± 0.000008
p2 0.1317 ± 0.0031
p3 0.0004932 ± 0.0000115
amplitude [V]


Noise, HV=600V
Noise, HV=600V
Entries 230931
Mean -5.452e-08
RMS 0.0003385
χ² / ndf 315.8 / 111
Prob 0
Constant 8175 ± 21.0
Mean -3.86e-07 ± 7.03e-07
Sigma 0.0003376 ± 0.0000005
[V]

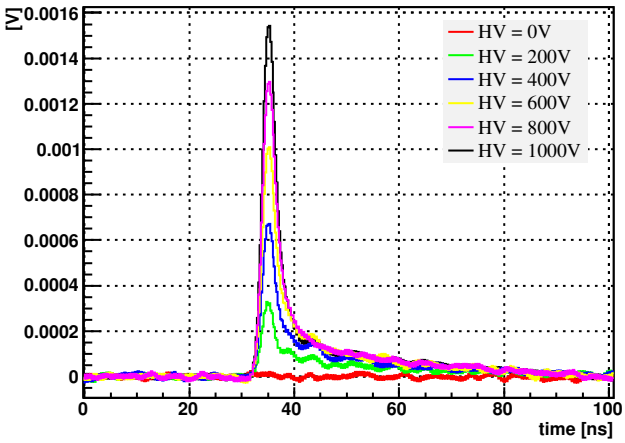

Amplitude, HV=800V
Amplitude, HV=800V
Entries 2851
Mean 0.001552
RMS 0.000964
χ² / ndf 34.78 / 38
Prob 0.6193
p0 3.75e-05 ± 1.28e-05
MPV 0.001936 ± 0.000029
p2 0.124 ± 0.003
p3 0.0005022 ± 0.0000246
amplitude [V]

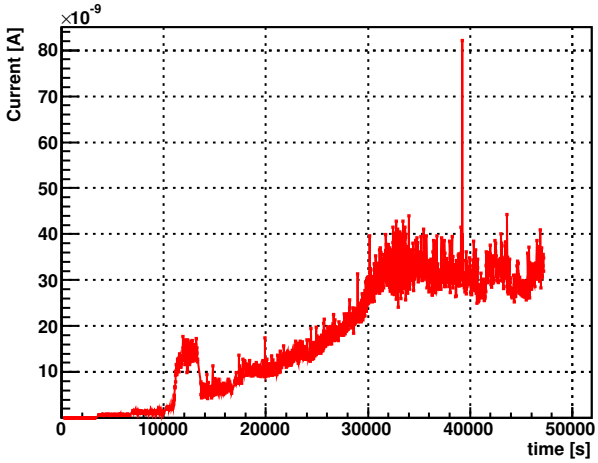

Noise, HV=800V
Noise, HV=800V
Entries 230931
Mean 3.396e-12
RMS 0.0003399
χ² / ndf 318.1 / 110
Prob 0
Constant 8136 ± 20.8
Mean -2.3e-07 ± 7.1e-07
Sigma 0.0003392 ± 0.0000005
[V]


Amplitude, HV=1000V
Amplitude, HV=1000V
Entries 28497
Mean 0.00181
RMS 0.001112
χ² / ndf 46.78 / 36
Prob 0.1077
p0 5.343e-05 ± 8.152e-06
MPV 0.002226 ± 0.000014
p2 1.303 ± 0.011
p3 0.0005591 ± 0.0000131
amplitude [V]

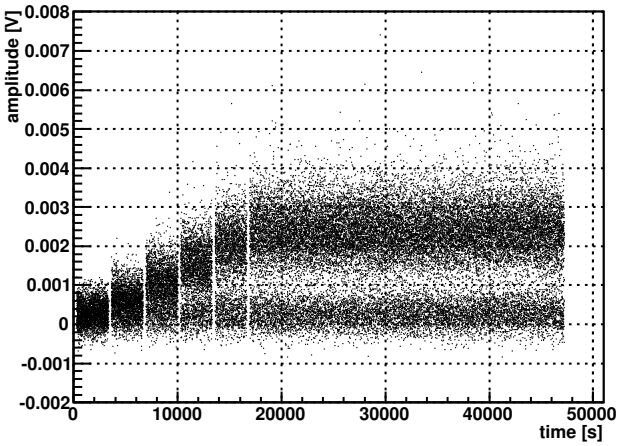

Noise, HV=1000V
Noise, HV=1000V
Entries 2308257
Mean -2.06e-07
RMS 0.0003411
χ² / ndf 1963 / 157
Prob 0
Constant 8.113e+04 ± 66
Mean -4.183e-07 ± 2.241e-07
Sigma 0.0003402 ± 0.0000002
[V]

Average event

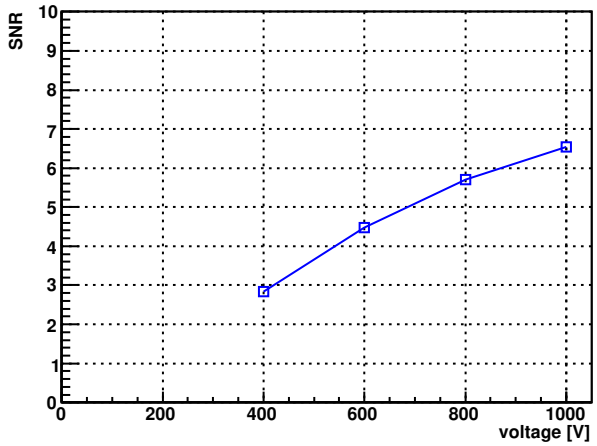




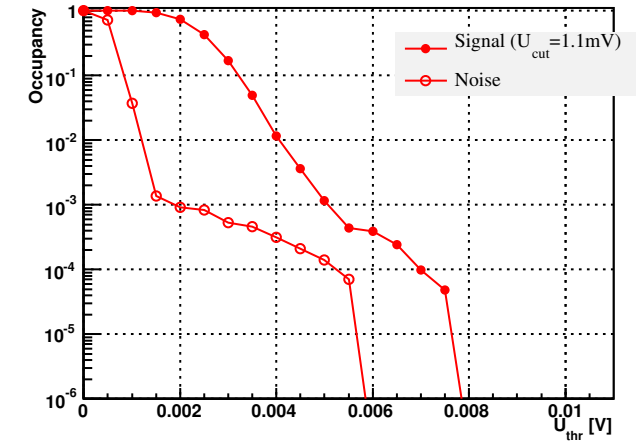
amplitudes



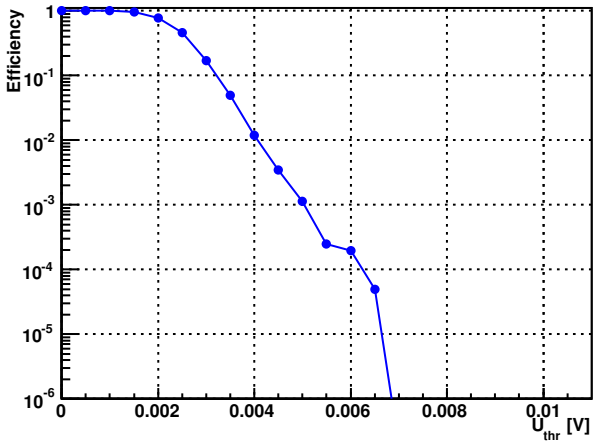
Signal to noise

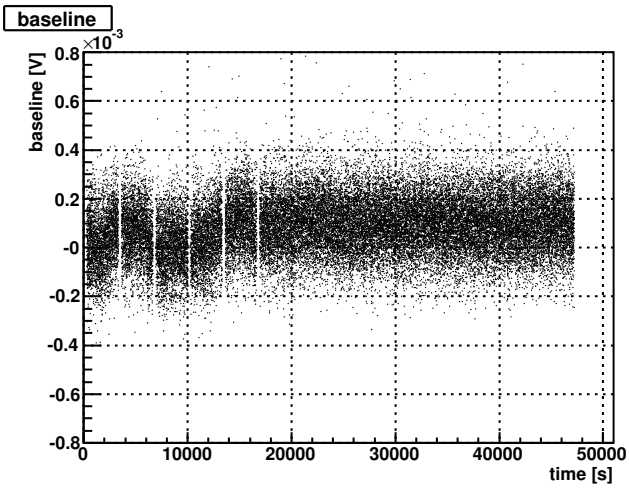


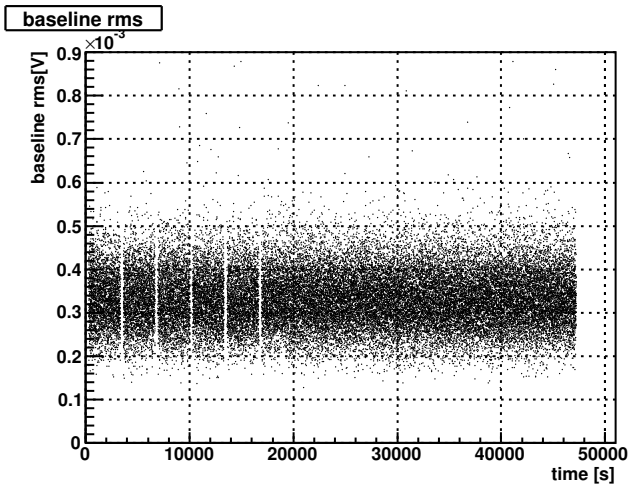
Occupancy vs Threshold, HV=1000V

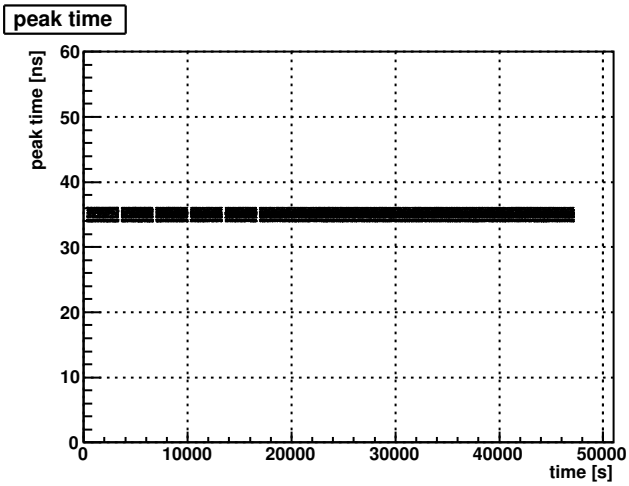


Efficiency vs Threshold, HV=1000V, U_{cut}=1.1mV




baseline
baseline [V]
×10⁻³
0.8
0.6
0.4
0.2
-0
-0.2
-0.4
-0.6
-0.8
0
10000
20000
30000
40000
50000
time [s]


baseline rms
baseline rms[V]
×10⁻³
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
10000
20000
30000
40000
50000
time [s]


peak time
peak time [ns]
60
50
40
30
20
10
0
0
10000
20000
30000
40000
50000
time [s]

Data File = SP_060322170035_Fotec408_A382-11_A382-8_measurement1.xls
Upper Diamond = A382-11
Lower Diamond = A382-8
Maček ceramic Ass. #1
resistor (marked with green circle on Fig.1) changed: 150Ω → 130Ω

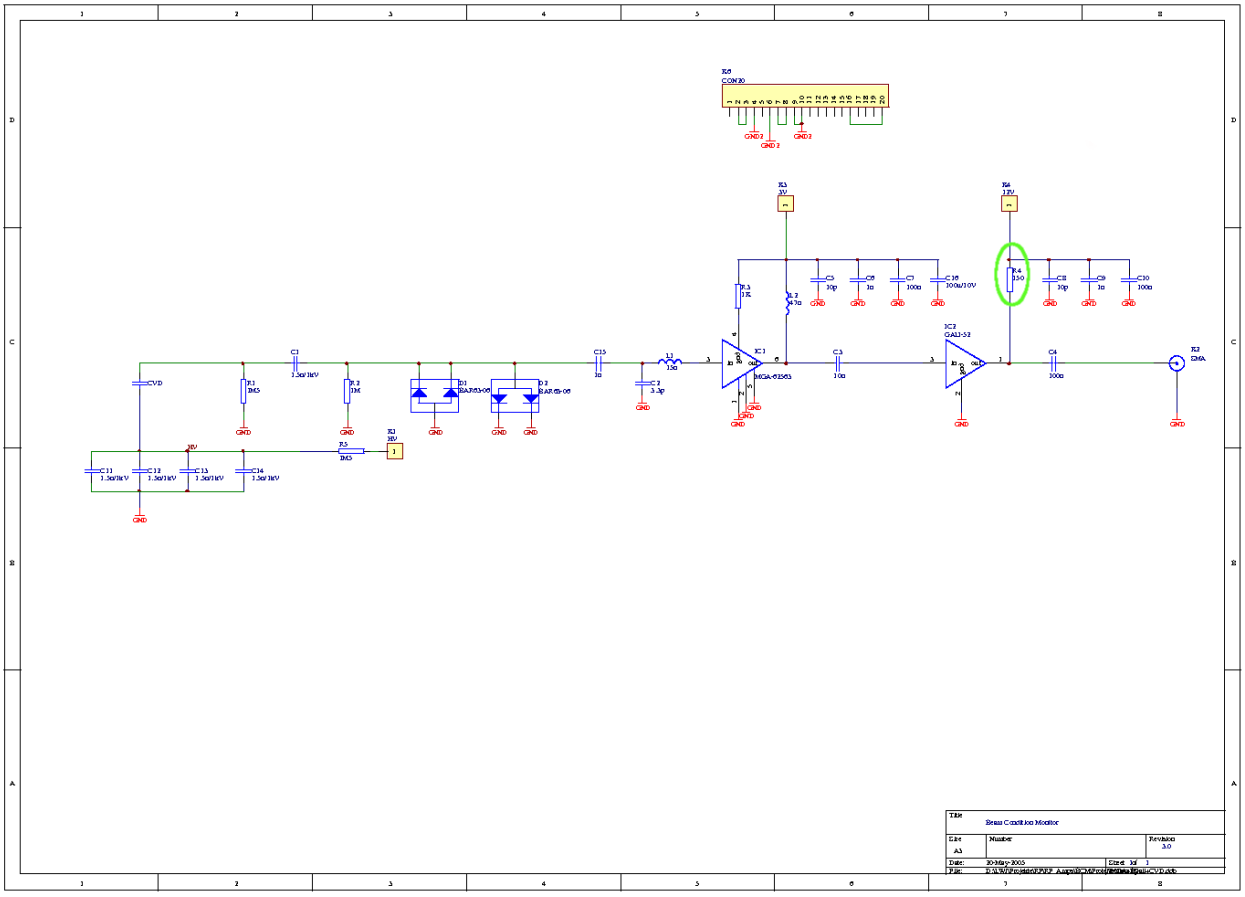


Figure 1: BCM schematics.