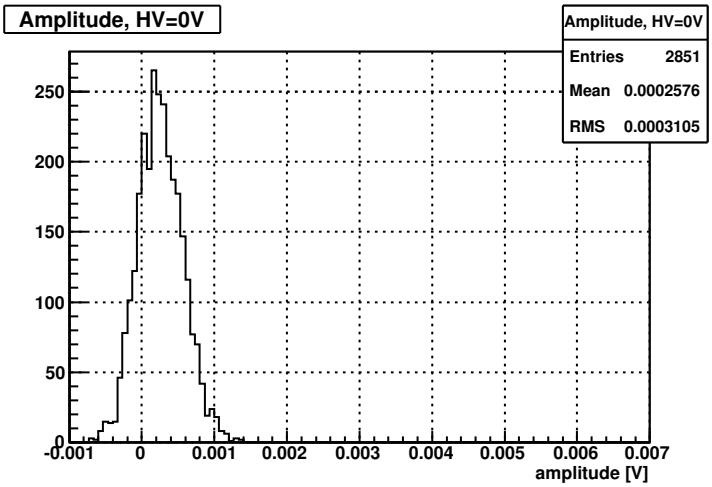
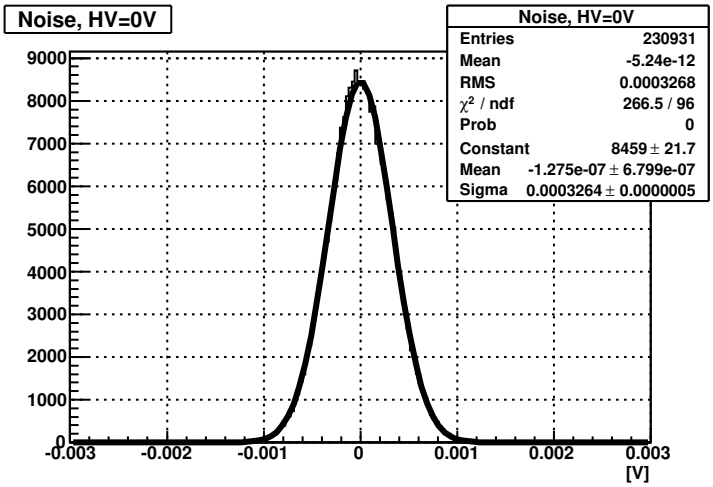
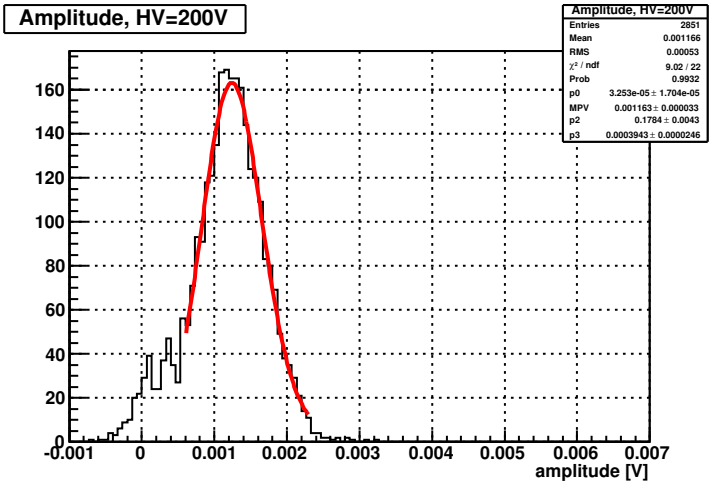
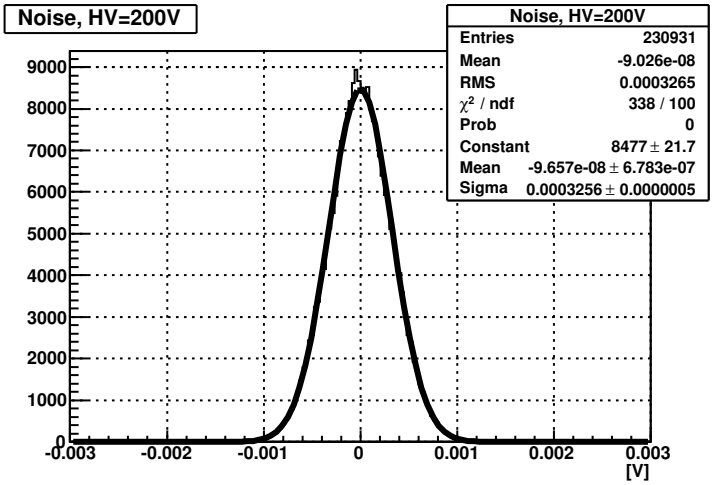
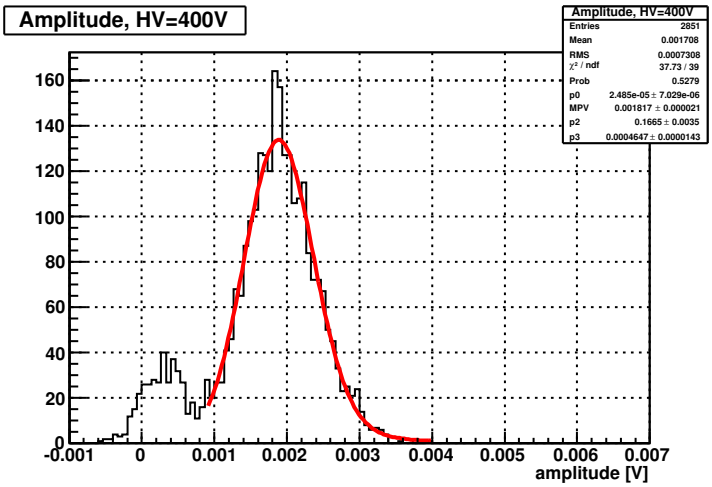
Fotec Box 402 (A230-10 and A230-08), Measurement 1 (BWL 200MHz)

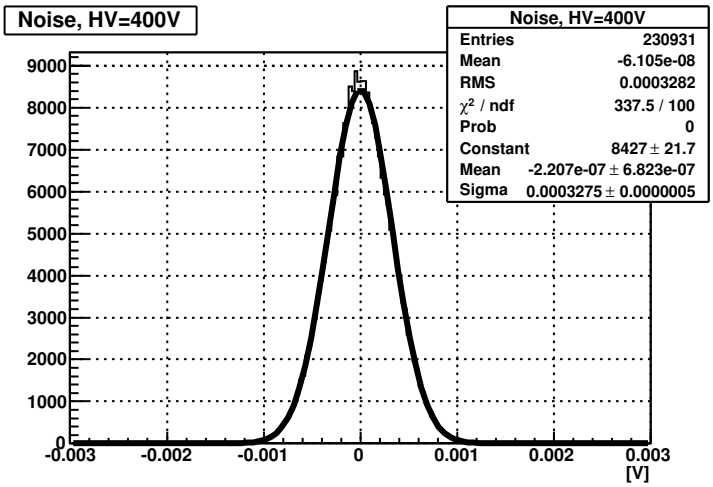


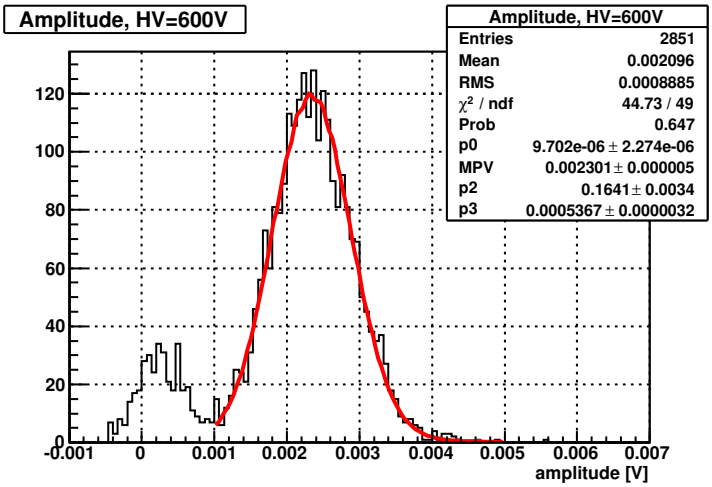


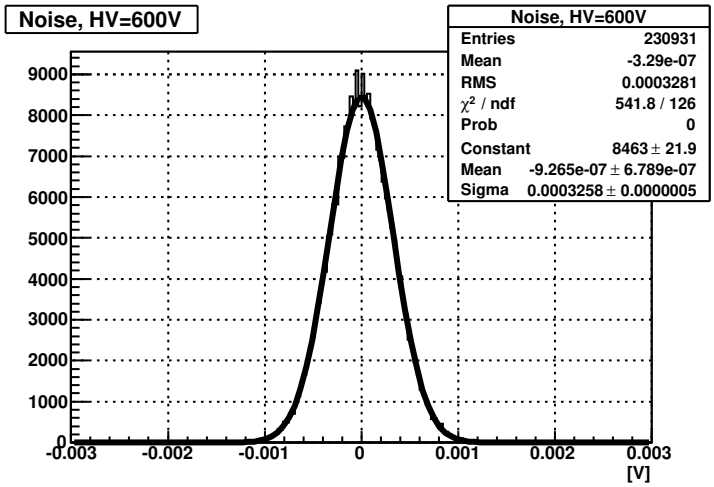


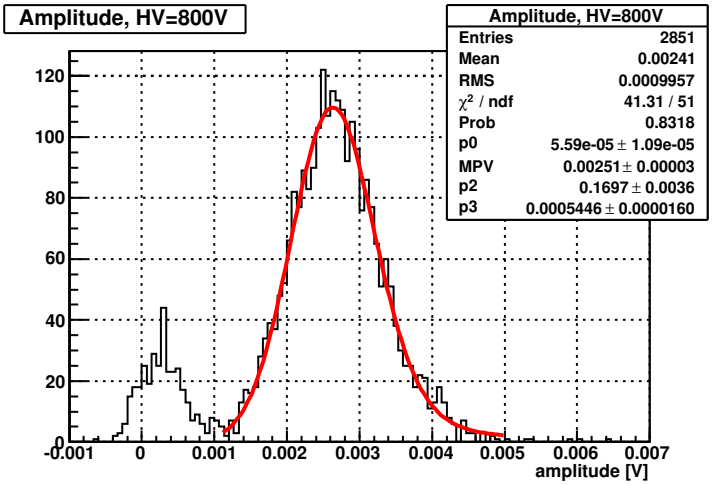


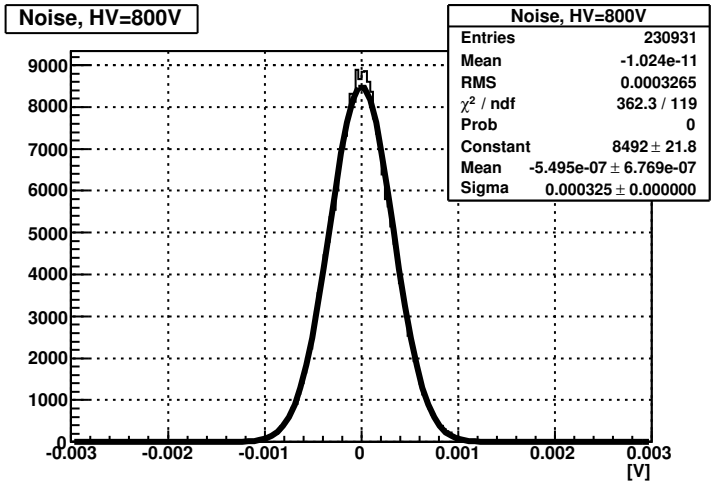


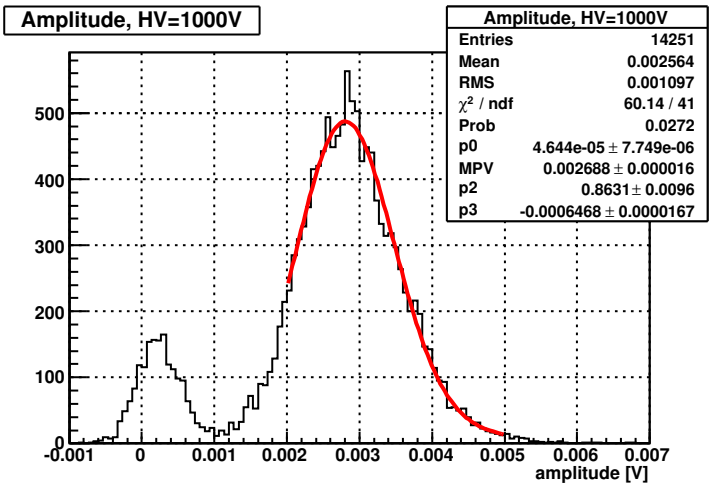


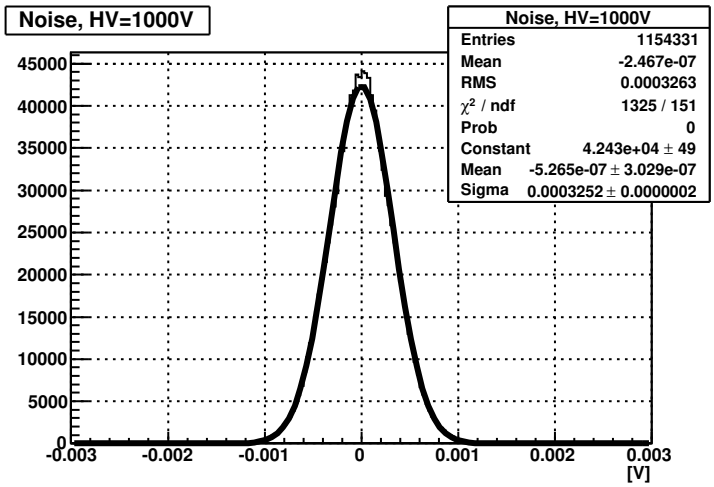

Amplitude, HV=600V
Amplitude, HV=600V
Entries 2851
Mean 0.002096
RMS 0.0008885
χ² / ndf 44.73 / 49
Prob 0.647
p0 9.702e-06 ± 2.274e-06
MPV 0.002301 ± 0.000005
p2 0.1641 ± 0.0034
p3 0.0005367 ± 0.0000032
amplitude [V]


Noise, HV=600V
Noise, HV=600V
Entries 230931
Mean -3.29e-07
RMS 0.0003281
χ² / ndf 541.8 / 126
Prob 0
Constant 8463 ± 21.9
Mean -9.265e-07 ± 6.789e-07
Sigma 0.0003258 ± 0.0000005
[V]

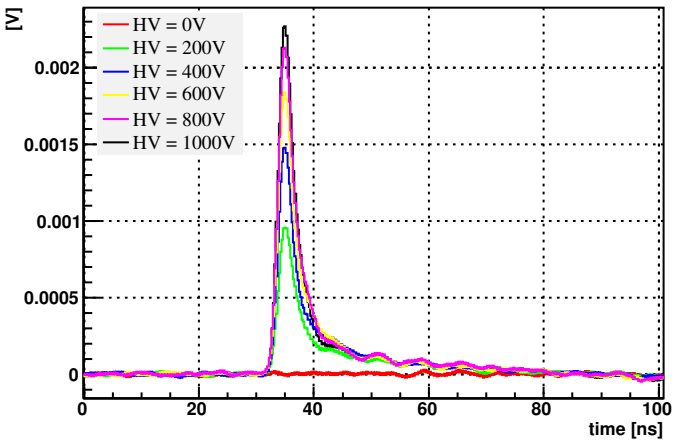

Amplitude, HV=800V
Amplitude, HV=800V
Entries 2851
Mean 0.00241
RMS 0.0009957
χ² / ndf 41.31 / 51
Prob 0.8318
p0 5.59e-05 ± 1.09e-05
MPV 0.00251 ± 0.00003
p2 0.1697 ± 0.0036
p3 0.0005446 ± 0.0000160
amplitude [V]

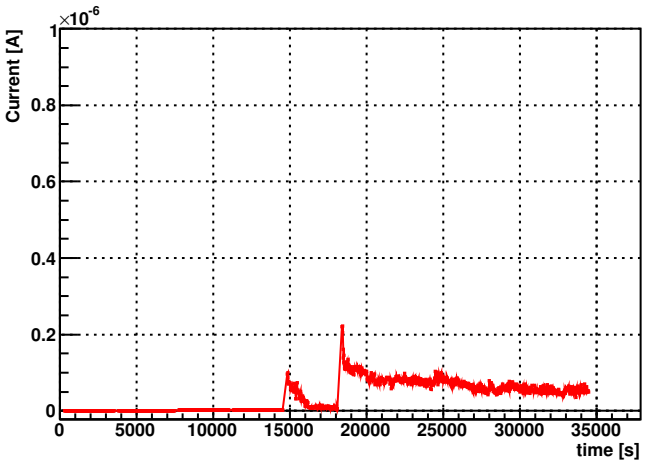

Noise, HV=800V
Noise, HV=800V
Entries 230931
Mean -1.024e-11
RMS 0.0003265
χ² / ndf 362.3 / 119
Prob 0
Constant 8492 ± 21.8
Mean -5.495e-07 ± 6.769e-07
Sigma 0.000325 ± 0.000000
[V]


Amplitude, HV=1000V
Amplitude, HV=1000V
Entries 14251
Mean 0.002564
RMS 0.001097
χ² / ndf 60.14 / 41
Prob 0.0272
p0 4.644e-05 ± 7.749e-06
MPV 0.002688 ± 0.000016
p2 0.8631 ± 0.0096
p3 -0.0006468 ± 0.0000167
amplitude [V]

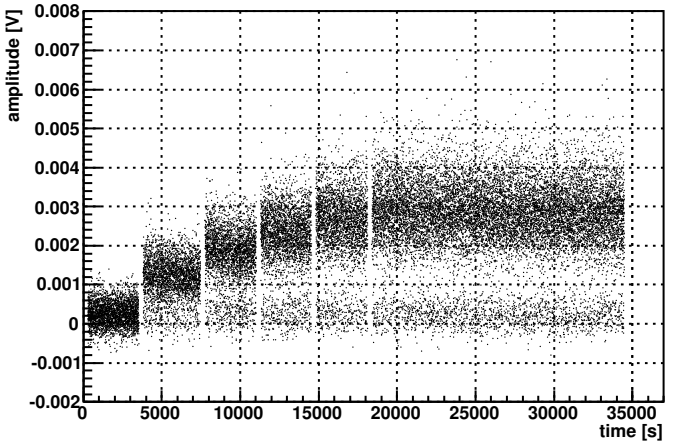

Noise, HV=1000V
Noise, HV=1000V
Entries 1154331
Mean -2.467e-07
RMS 0.0003263
χ² / ndf 1325 / 151
Prob 0
Constant 4.243e+04 ± 49
Mean -5.265e-07 ± 3.029e-07
Sigma 0.0003252 ± 0.0000002
[V]

Average event

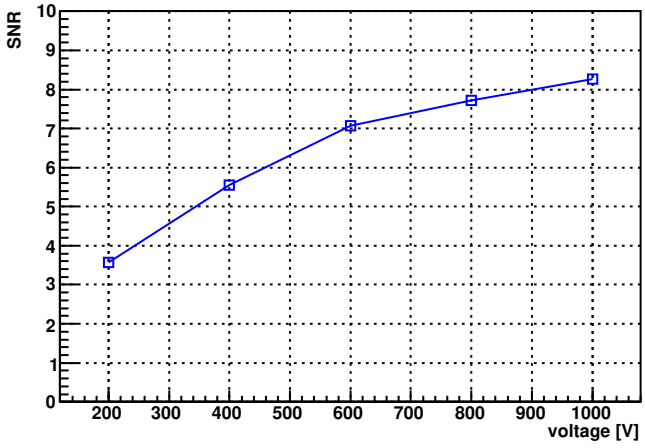




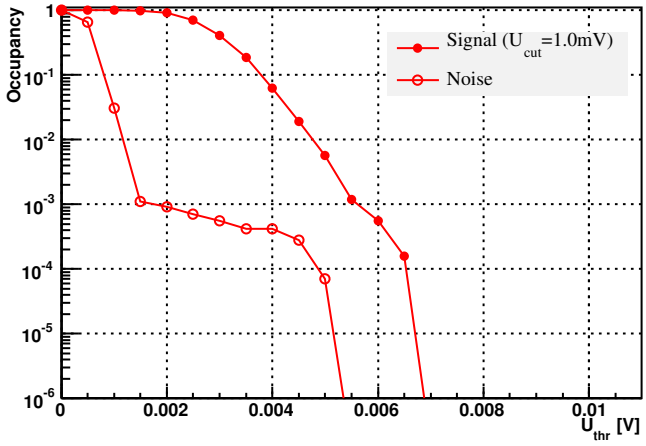
amplitudes



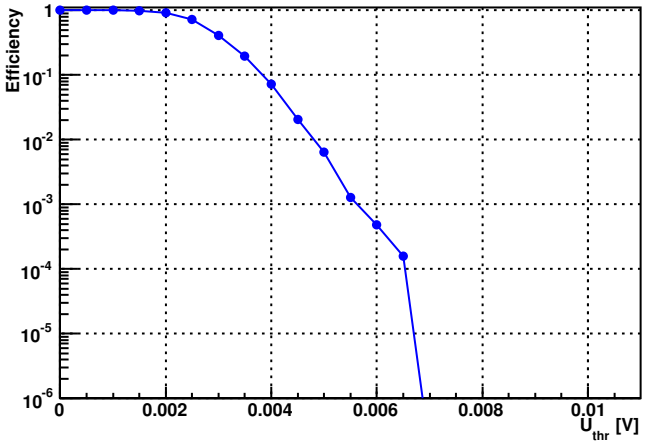
Signal to noise

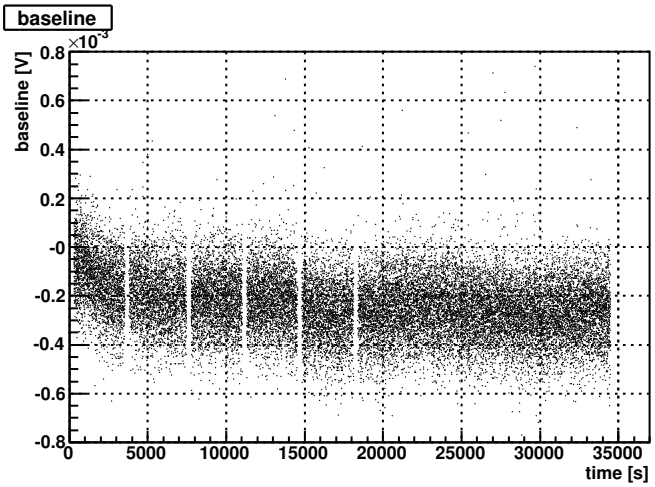


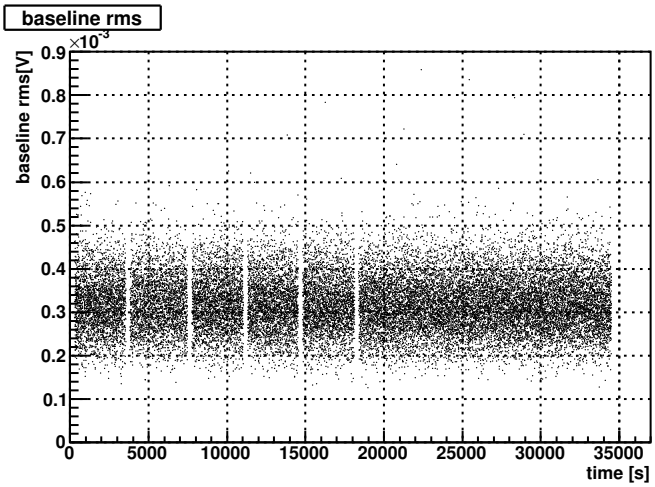
Occupancy vs Threshold, HV=1000V

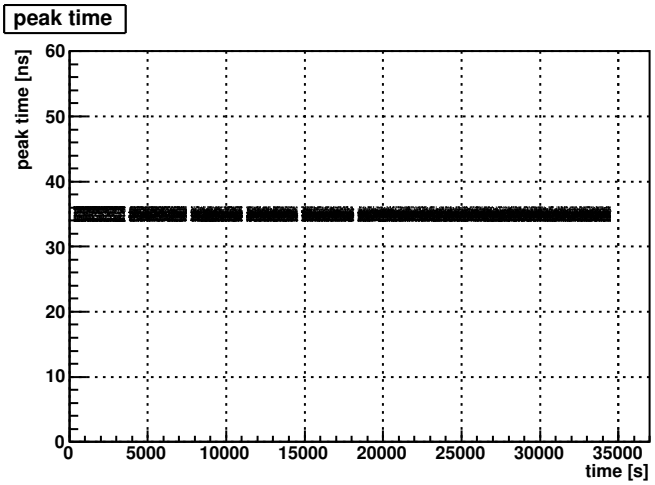


Efficiency vs Threshold, HV=1000V




baseline
×10⁻³
baseline [V]
0.8
0.6
0.4
0.2
-0
-0.2
-0.4
-0.6
-0.8
0
5000
10000
15000
20000
25000
30000
35000
time [s]


baseline rms
×10⁻³
baseline rms[V]
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
5000
10000
15000
20000
25000
30000
35000
time [s]


peak time
peak time [ns]
60
50
40
30
20
10
0
0
5000
10000
15000
20000
25000
30000
35000
time [s]

Data File = SP_050925182446_Fotec402-A230-08_A230-10-measurement1.xls
Upper Diamond = A230-08, $\sim 500 \mu m$ thick, Au metailzation
Lower Diamond = A230-10, $\sim 500 \mu m$ thick, Au metailzation