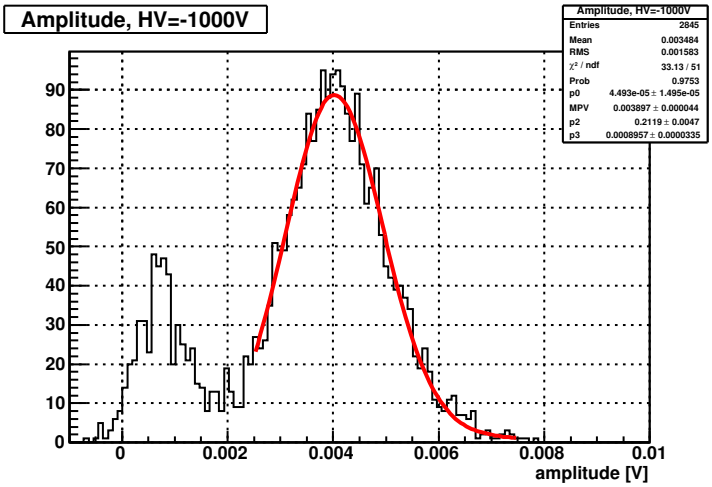
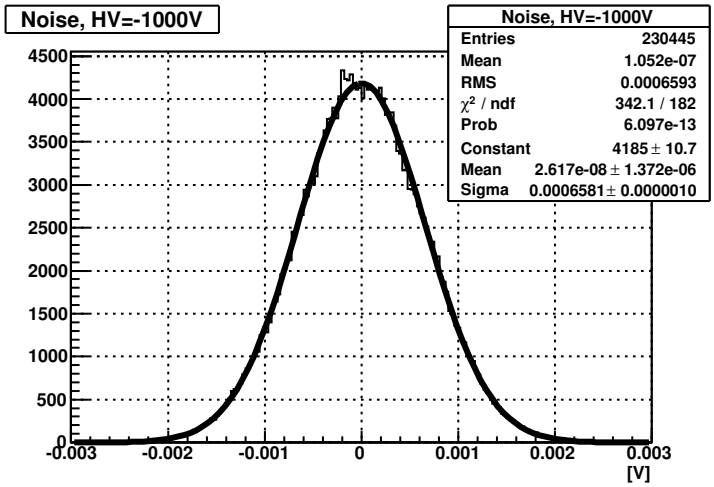
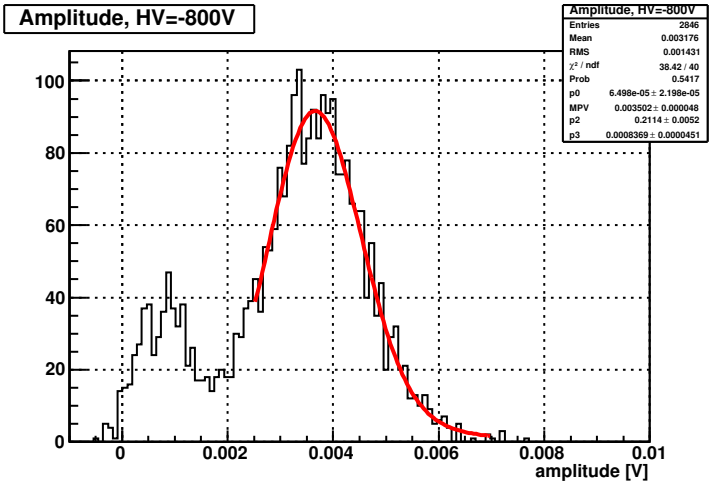
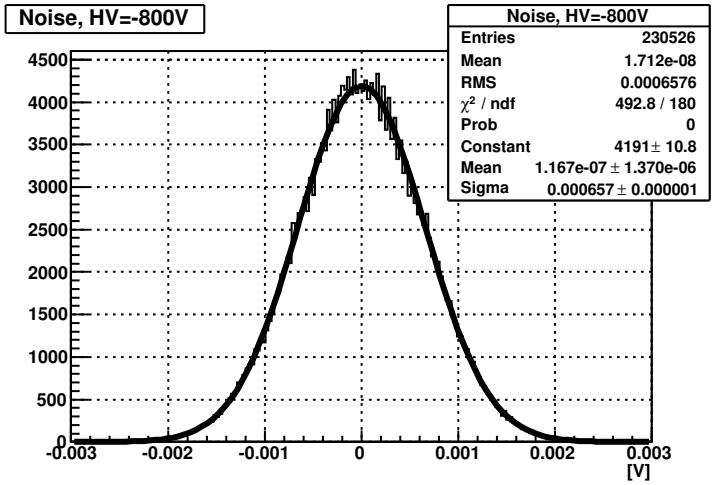
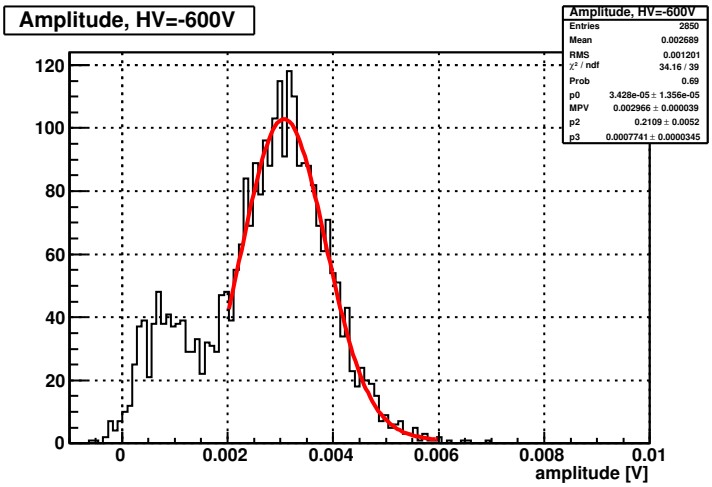
Fotec Box 401 (CDS163, 46TO-4), Measurement 4

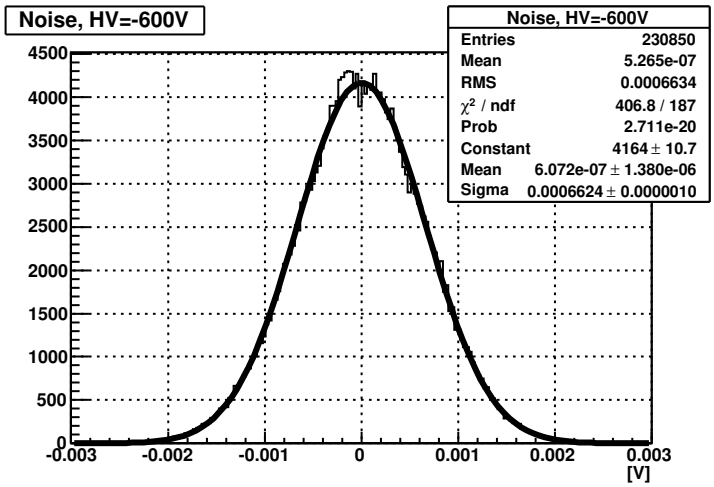


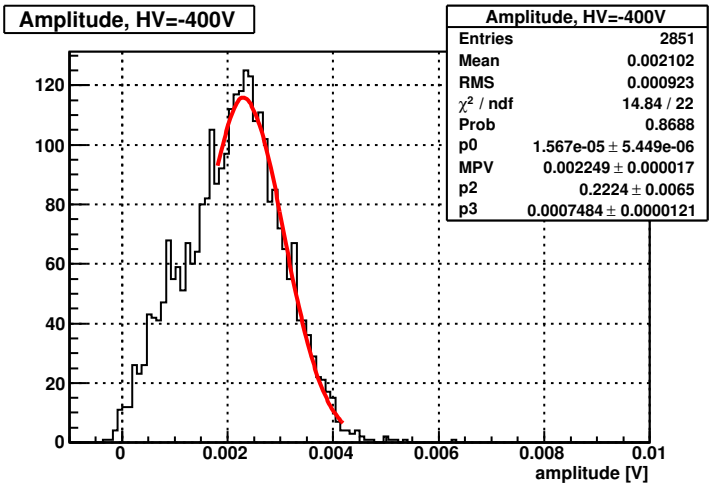


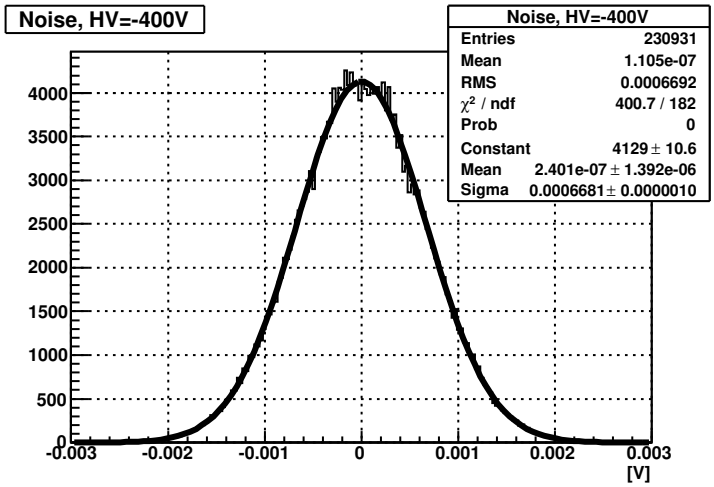


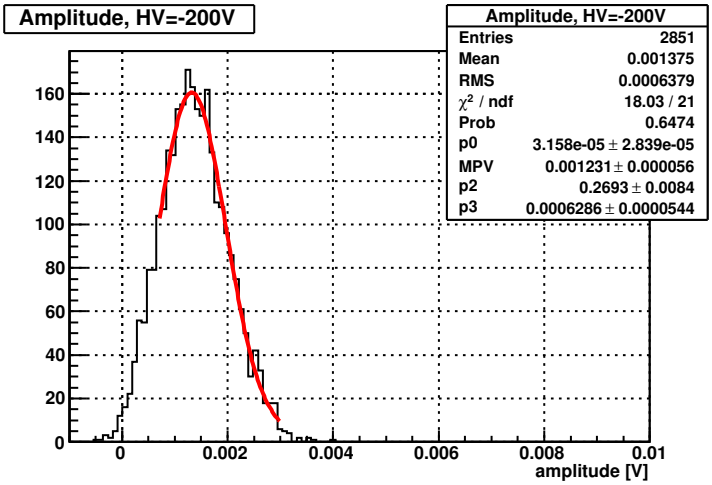


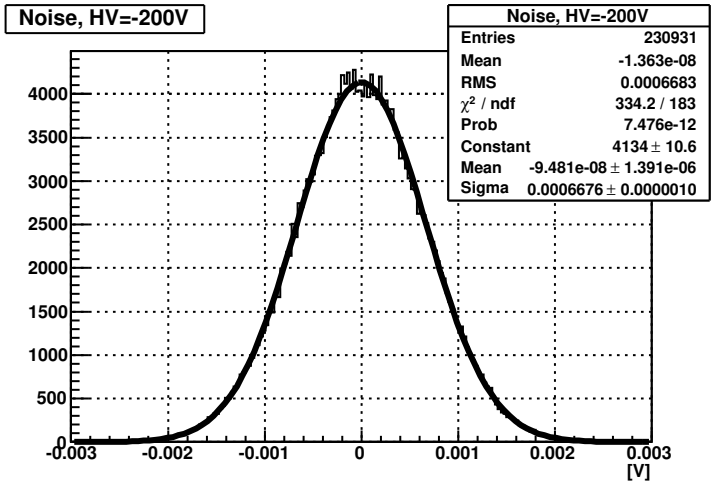


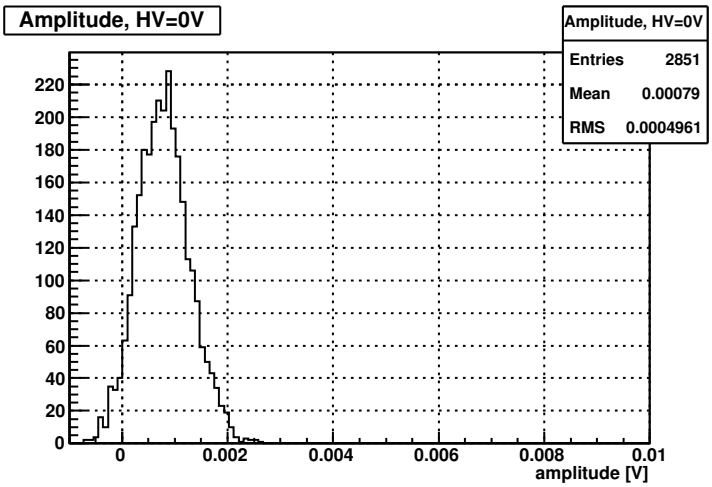


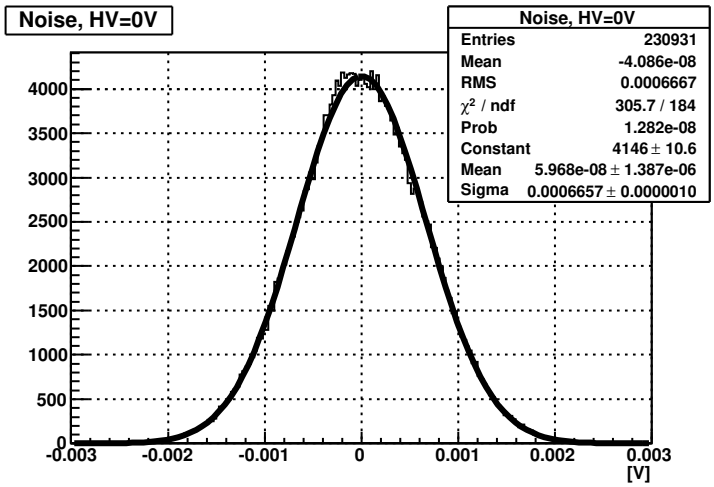

Amplitude, HV=-400V
Amplitude, HV=-400V
Entries 2851
Mean 0.002102
RMS 0.000923
χ² / ndf 14.84 / 22
Prob 0.8688
p0 1.567e-05 ± 5.449e-06
MPV 0.002249 ± 0.000017
p2 0.2224 ± 0.0065
p3 0.0007484 ± 0.0000121
amplitude [V]


Noise, HV=-400V
Noise, HV=-400V
Entries 230931
Mean 1.105e-07
RMS 0.0006692
χ² / ndf 400.7 / 182
Prob 0
Constant 4129 ± 10.6
Mean 2.401e-07 ± 1.392e-06
Sigma 0.0006681 ± 0.0000010
[V]

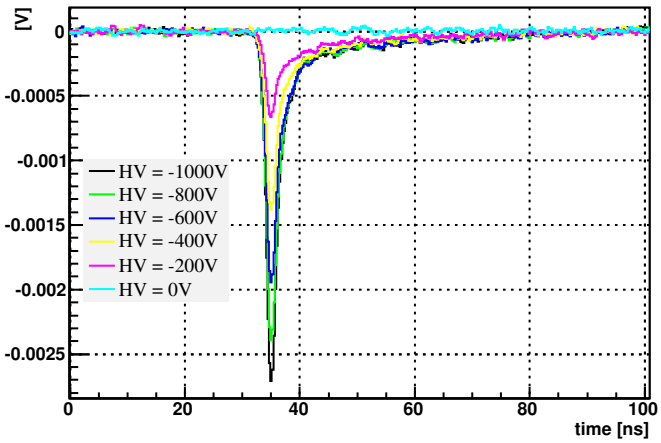

Amplitude, HV=-200V
Amplitude, HV=-200V
Entries 2851
Mean 0.001375
RMS 0.0006379
χ² / ndf 18.03 / 21
Prob 0.6474
p0 3.158e-05 ± 2.839e-05
MPV 0.001231 ± 0.000056
p2 0.2693 ± 0.0084
p3 0.0006286 ± 0.0000544
amplitude [V]

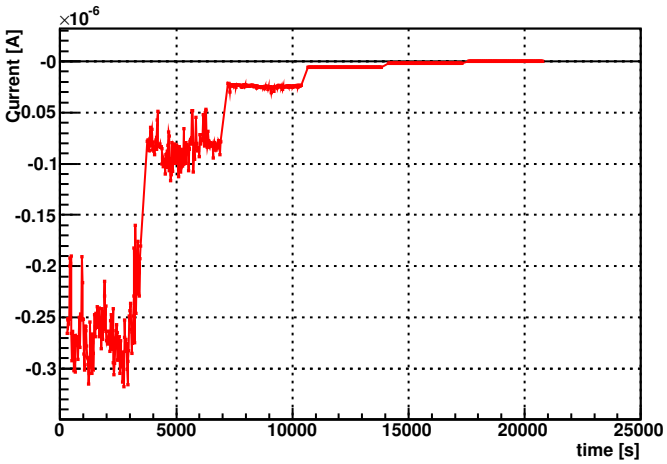

Noise, HV=-200V
Noise, HV=-200V
Entries 230931
Mean -1.363e-08
RMS 0.0006683
χ² / ndf 334.2 / 183
Prob 7.476e-12
Constant 4134 ± 10.6
Mean -9.481e-08 ± 1.391e-06
Sigma 0.0006676 ± 0.0000010
[V]


Amplitude, HV=0V
Amplitude, HV=0V
Entries 2851
Mean 0.00079
RMS 0.0004961
amplitude [V]

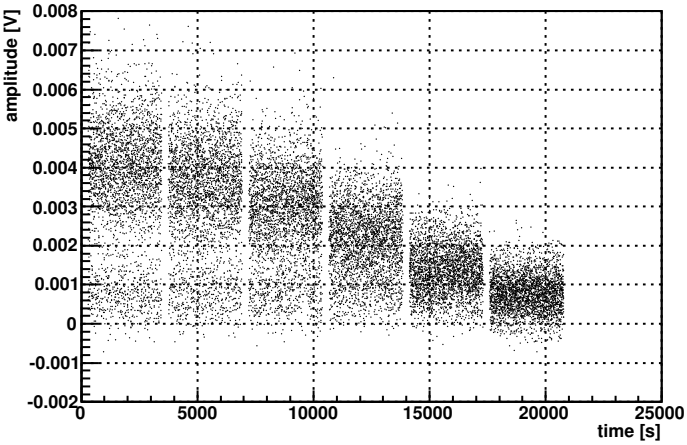

Noise, HV=0V
Noise, HV=0V
Entries 230931
Mean -4.086e-08
RMS 0.0006667
χ² / ndf 305.7 / 184
Prob 1.282e-08
Constant 4146 ± 10.6
Mean 5.968e-08 ± 1.387e-06
Sigma 0.0006657 ± 0.0000010
[V]

Average event

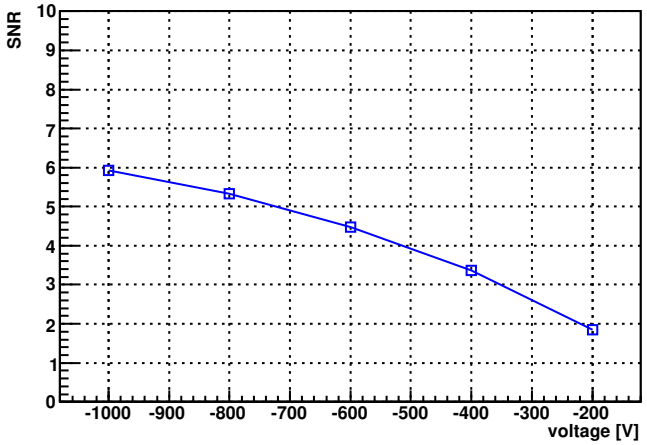




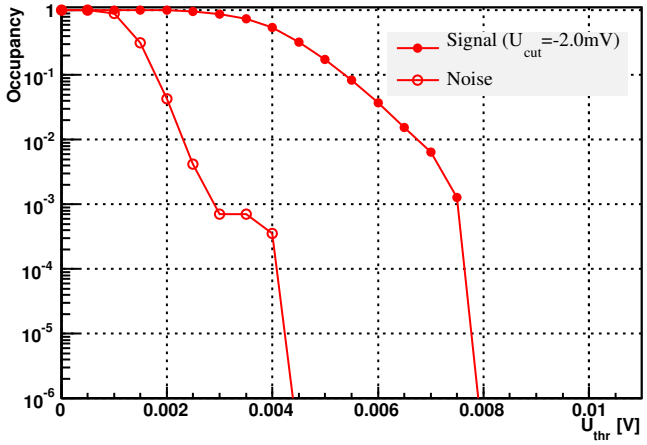
amplitudes



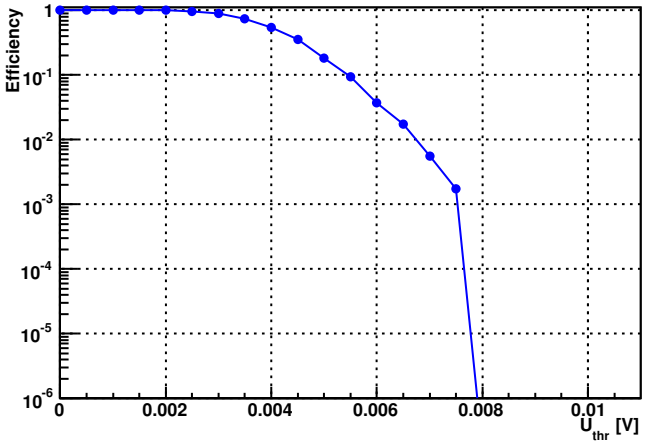
Signal to noise

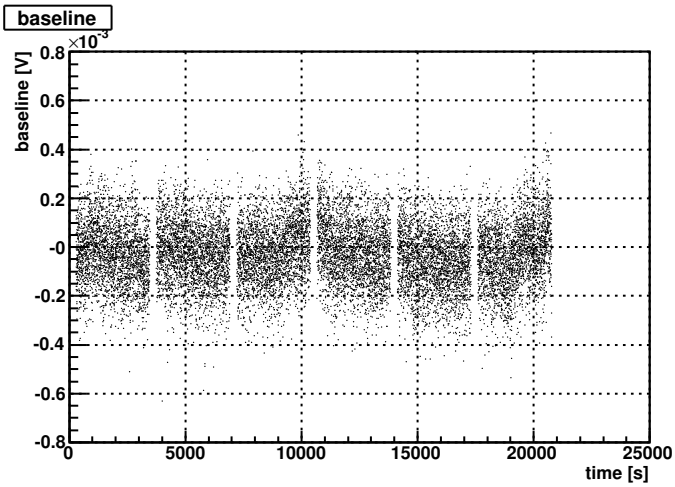


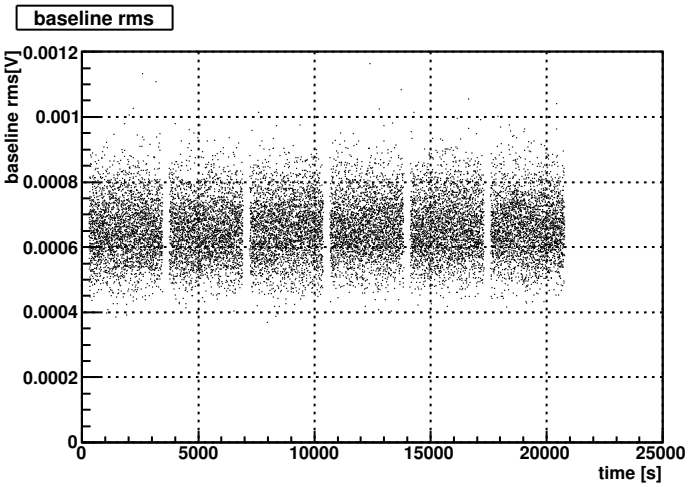
Occupancy vs Threshold, HV=1000V

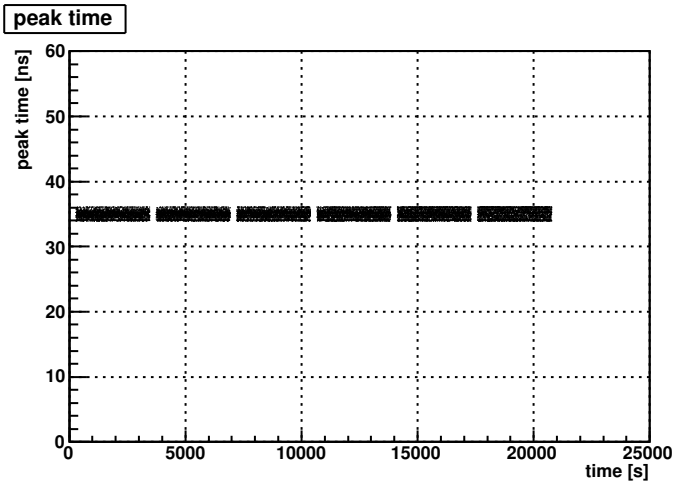


Efficiency vs Threshold, HV=1000V




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
time [s]


baseline rms
baseline rms[V]
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
0
5000
10000
15000
20000
25000
time [s]


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

Data File = SP_050908054052_Fotec401-cds163-46to-4-measurement4.xls
Upper Diamond = CDS-163, $\sim 500 \mu m$ thick, Al metailzation
Lower Diamond = 46TO-4, $\sim 500 \mu m$ thick, Al metailzation