

Weekly20250821

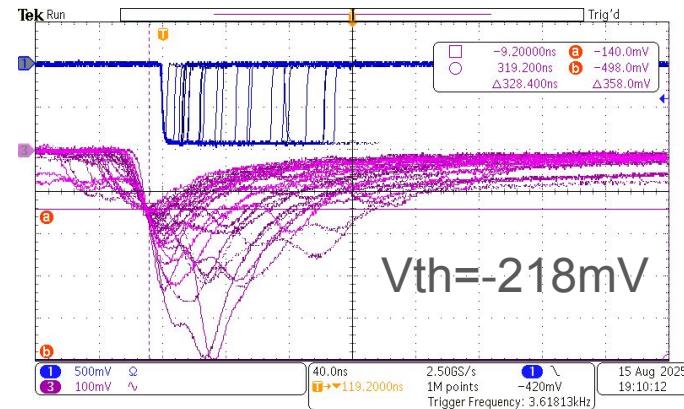
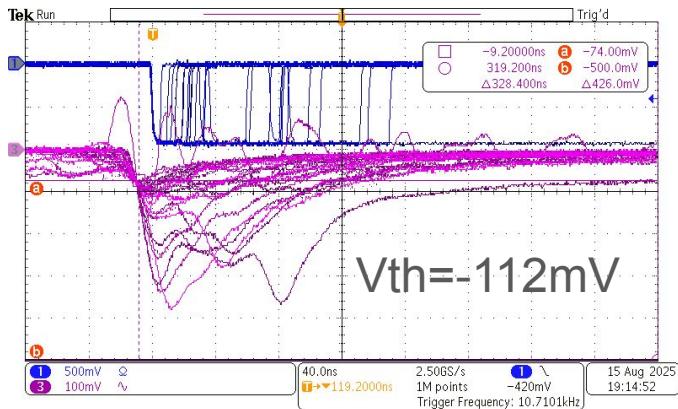
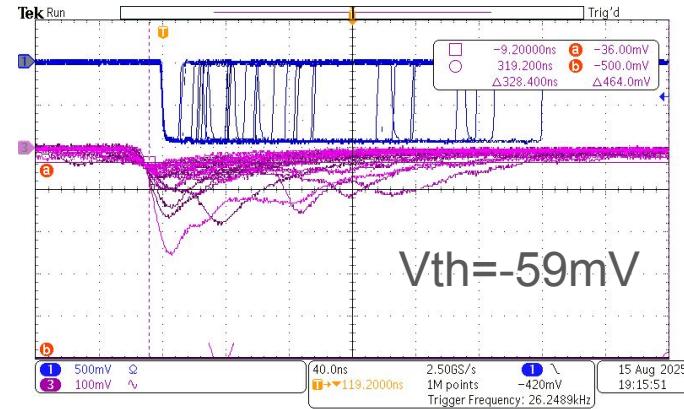
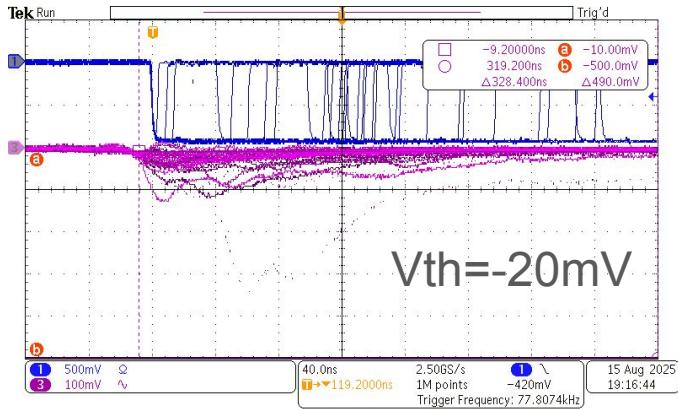
- ASAGI : Vth control, Healthy ToT spectrum, Rough Efficiency
-

Review

- E80-TC x SONY-ASD
 - ADC with 55Fe
 - No position dependence of total charge (caen v792)
 - Pulse height at the read-out side is ~20% lower than the hv side (caen v785). (almost consistent with pictures on oscill)
 - TDC with 90Sr in case of $V_{th}=-1.5V$
 - No position dependence of ToT
 - No position dependence of efficiency
 - To do
 - Pictures on oscill with 90Sr
→ reason of ToT double peak at the hv side

ASAGI: Vth control

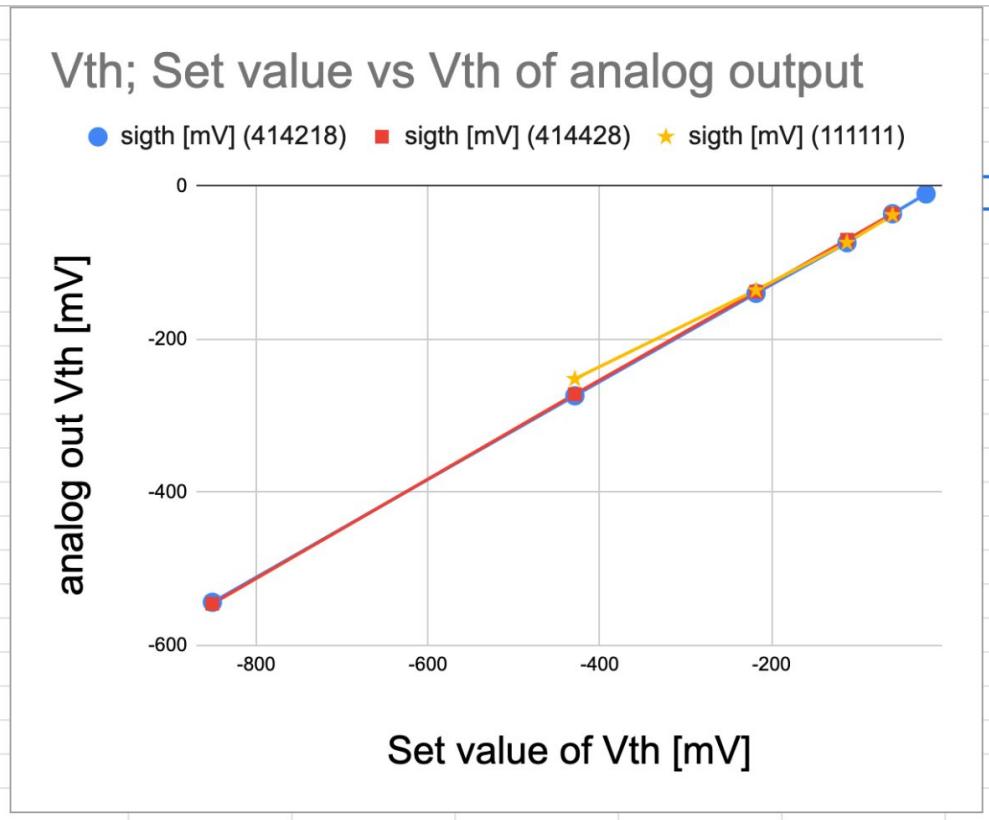
SHA:PZC:CSA(RC) = 41:42:18, Analog-out, E15-TC, -2600V, 90Sr



ASAGI: Vth control

Vth [mV]	sighth [mV] (414218)	sighth [mV] (414428)	sighth [mV] (111111)
-20	-10	発振	発振
-59	-36	-36	-38
-112	-74	-70	-74
-218	-140	-138	-136
-429	-274	-272	-252
-851	-544	-546	信号無し

- Set Value \propto Analog out Value
- Independent on RC# param
- Good

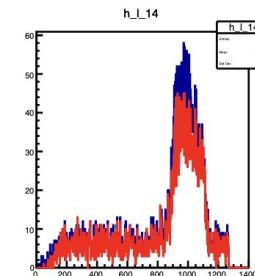
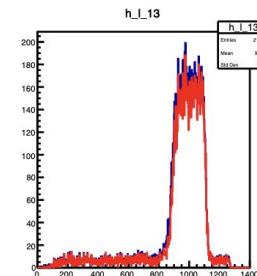
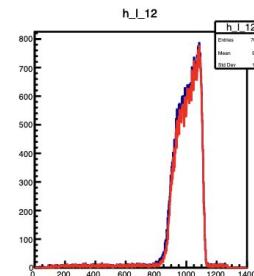
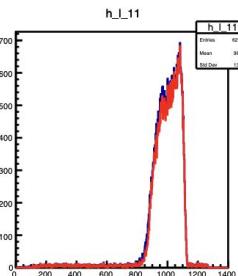
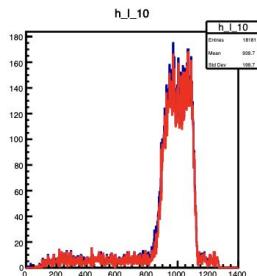
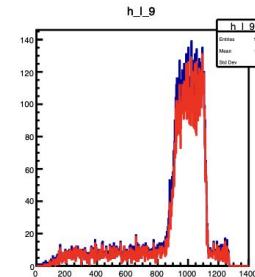
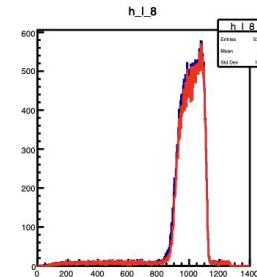
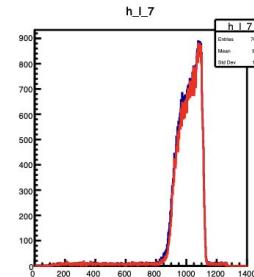
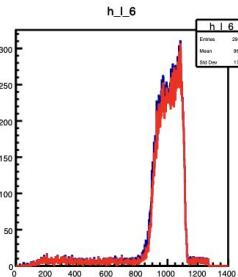
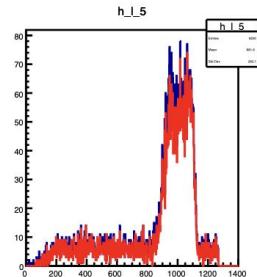
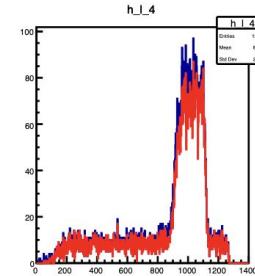
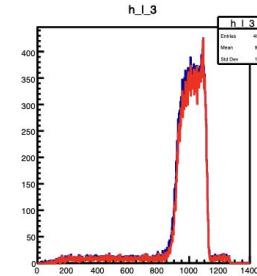
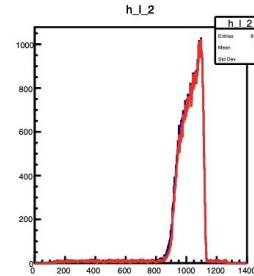
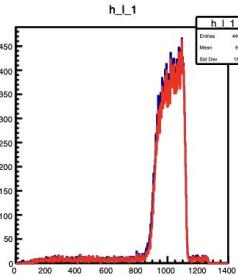
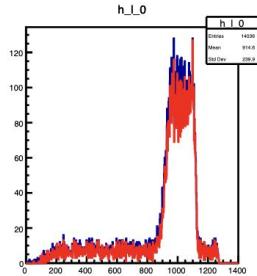


ASAGI: TDC data

- with a trigger scintillator
- ^{90}Sr
- 1.7 kHz (0.2 kHz in case of 2 trigger scintis)

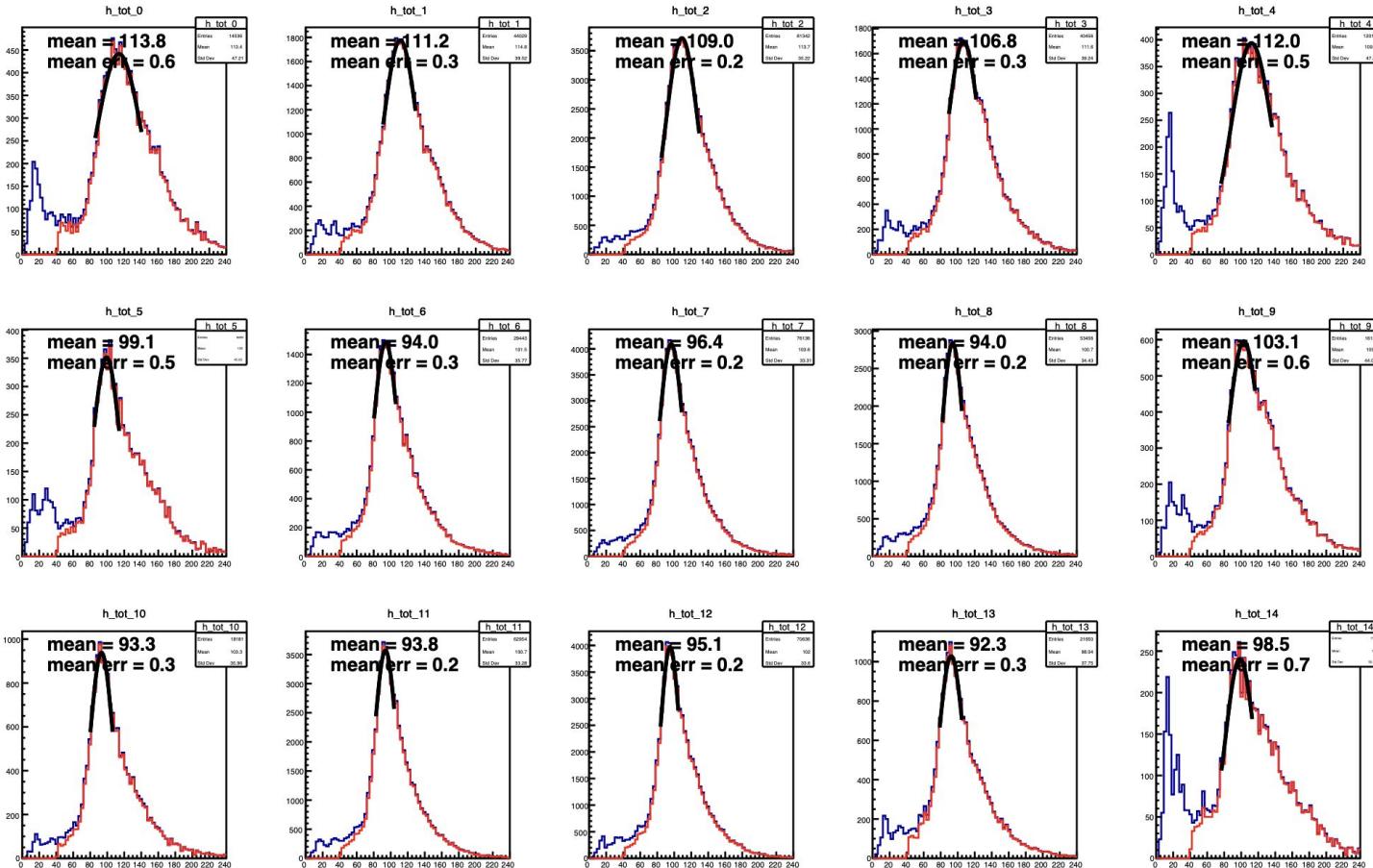
ASAGI: TDC

SHA:PZC:CSA(RC)=18:44:11, Vth=-56.1mV



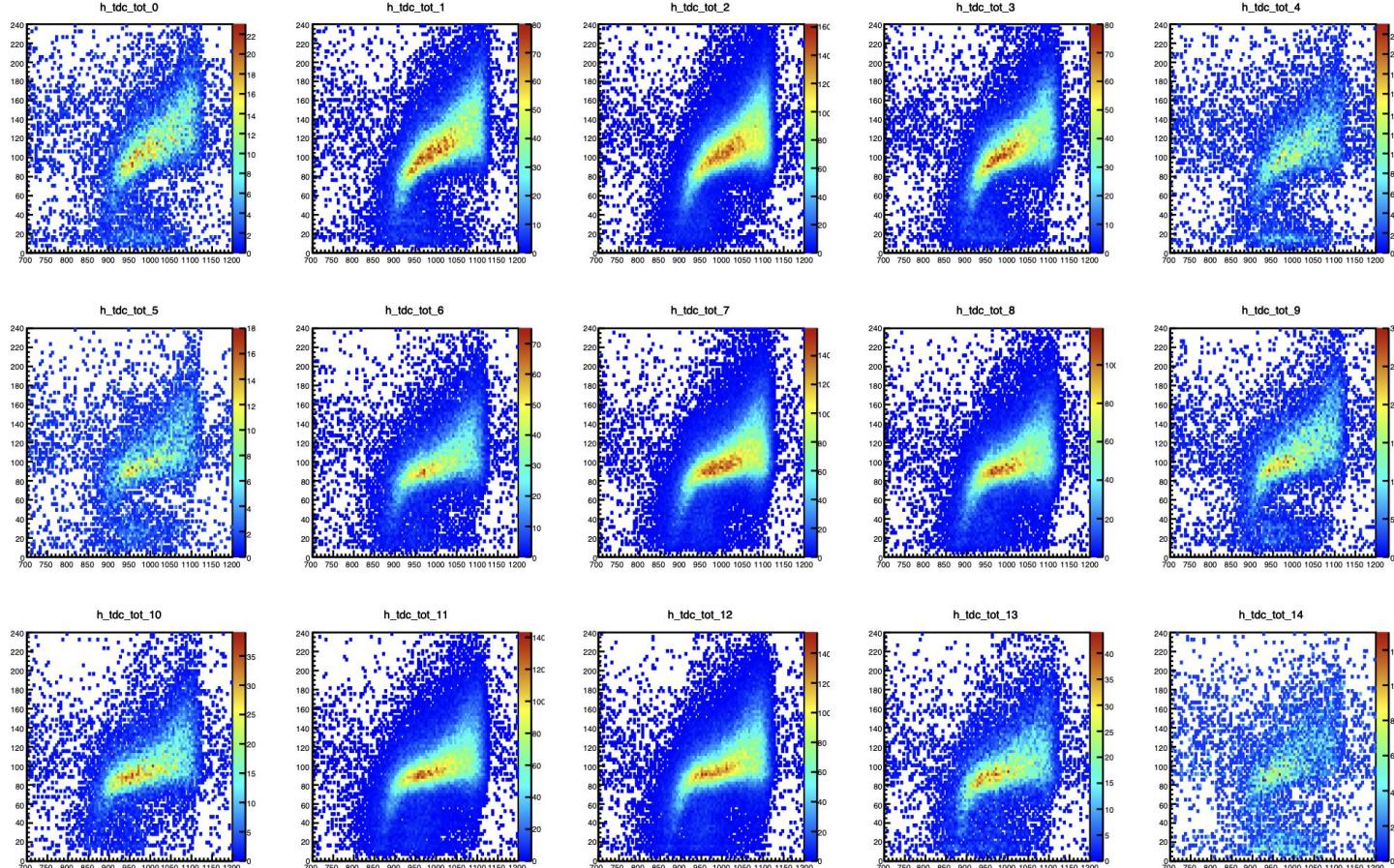
ASAGI: ToT

SHA:PZC:CSA(RC)=18:44:11, Vth=-56.1mV



ASAGI: ToT vs TDC

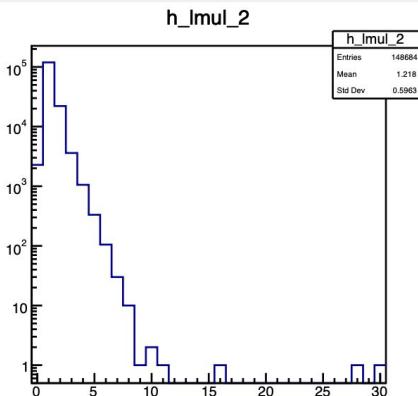
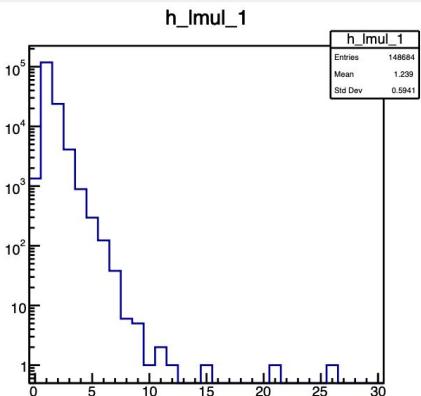
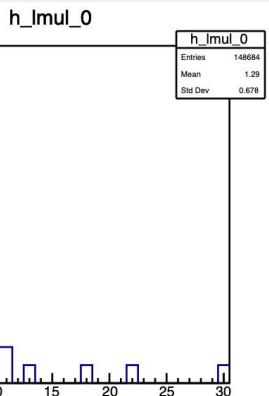
SHA:PZC:CSA(RC)=18:44:11, Vth=-56.1mV



ASAGI: Multiplicity and Efficiency

*** # of hit with ToT

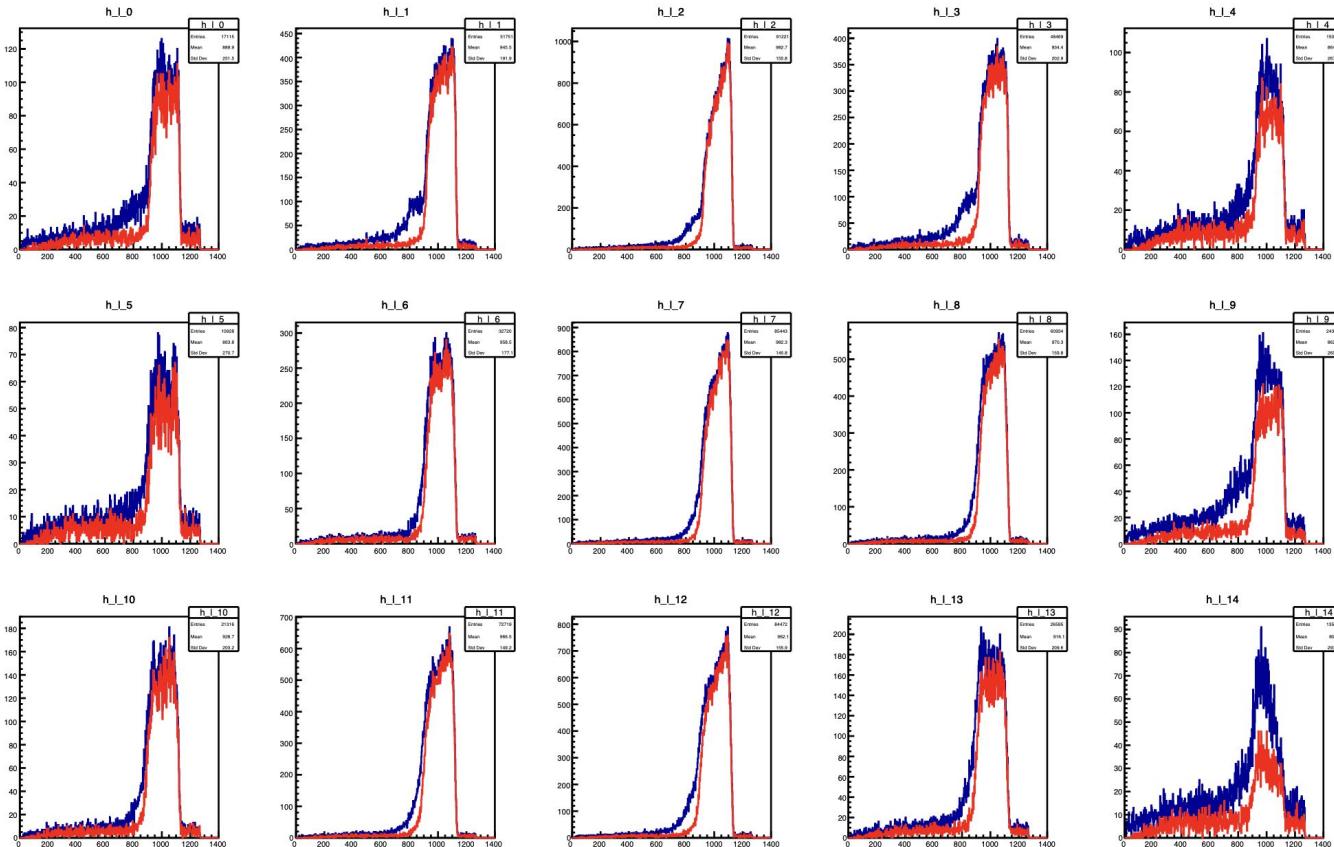
SHA:PZC:CSA(RC)=18:44:11, Vth=-56.1mV



```
Processing tc_eff.C(346)...
##### Efficiency #####
=====
denominator : 77356
Wire Efficiency : 0.985651
Error : 0.000424512
=====
l_bunbo[0] : 142425
layer_Efficiency[0] : 0.990971
Error : 0.000249514
=====
l_bunbo[1] : 143015
layer_Efficiency[1] : 0.986883
Error : 0.000298882
=====
l_bunbo[2] : 143972
layer_Efficiency[2] : 0.980323
Error : 0.000362422
=====
```

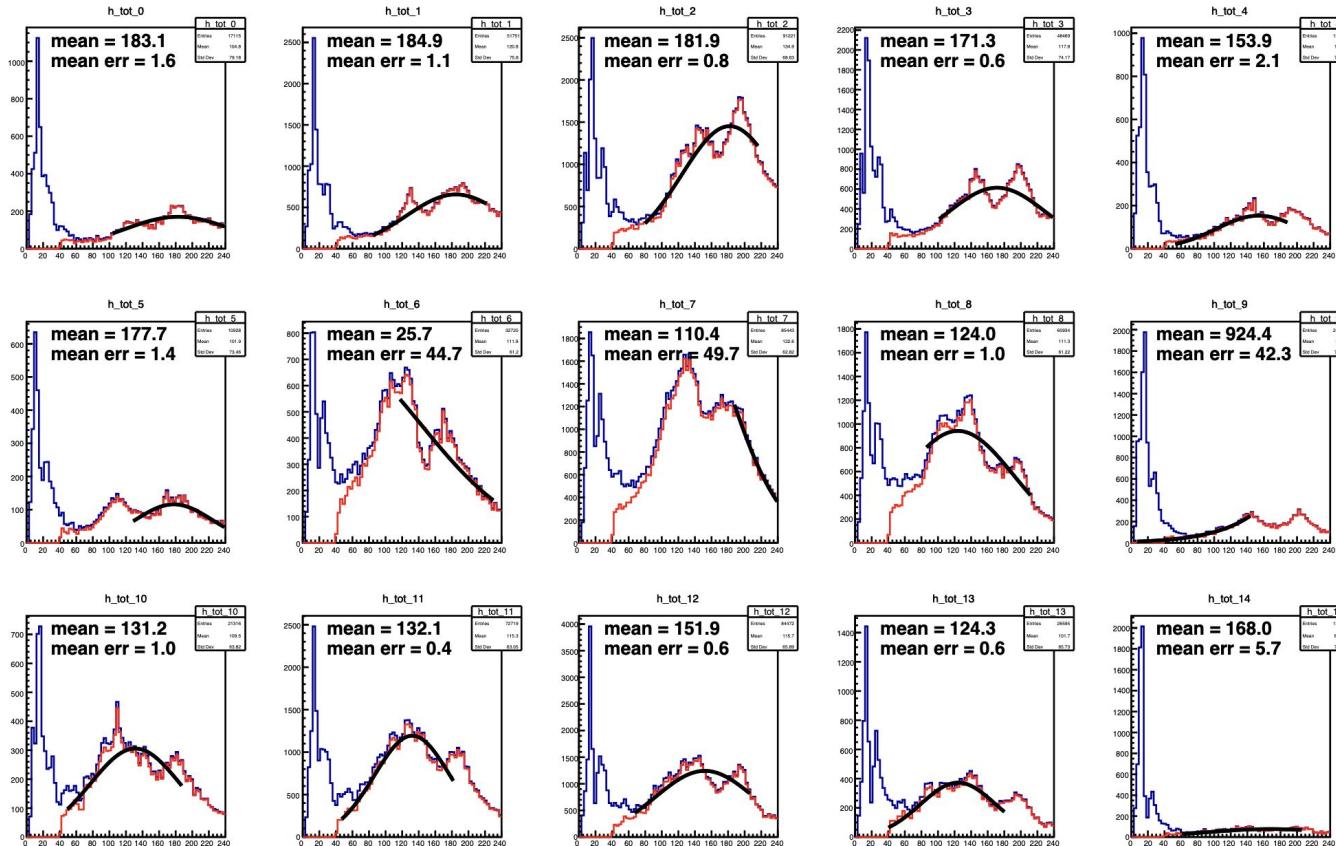
ASAGI: TDC

SHA:PZC:CSA(RC)=41:42:18, Vth=-29.7mV



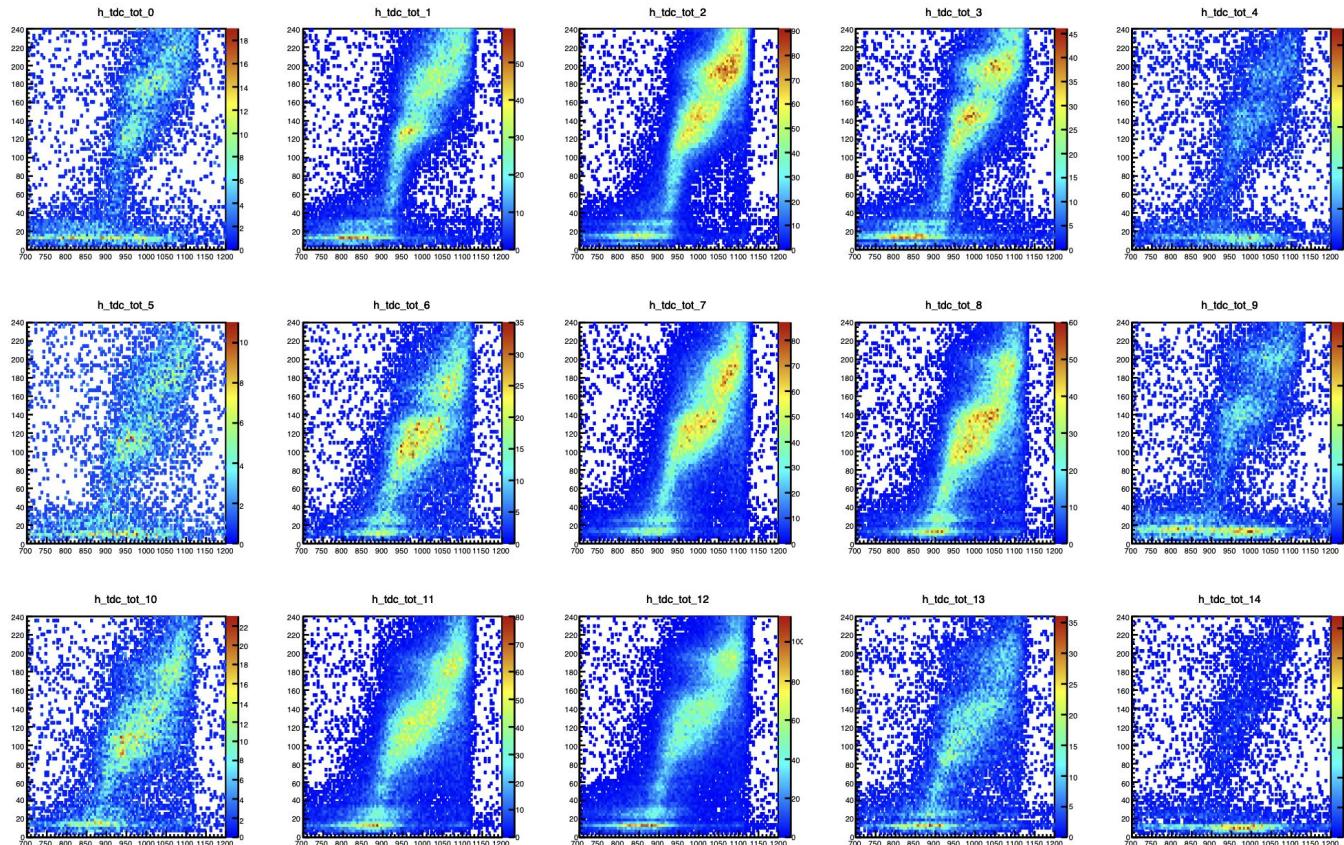
ASAGI: ToT

SHA:PZC:CSA(RC)=41:42:18, Vth=-29.7mV



ASAGI: ToT vs TDC

SHA:PZC:CSA(RC)=41:42:18, Vth=-29.7mV

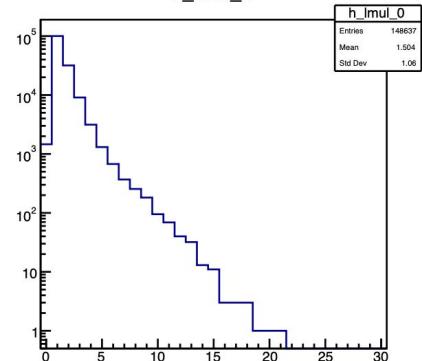


ASAGI: Multiplicity and Efficiency

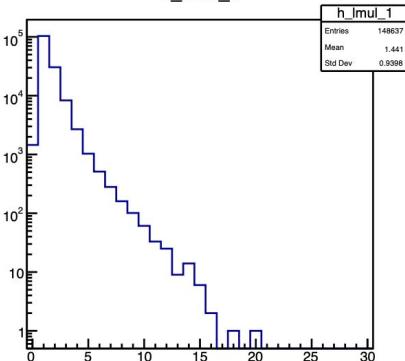
*** # of hit with ToT

SHA:PZC:CSA(RC)=42:41:18, Vth=-29.7mV

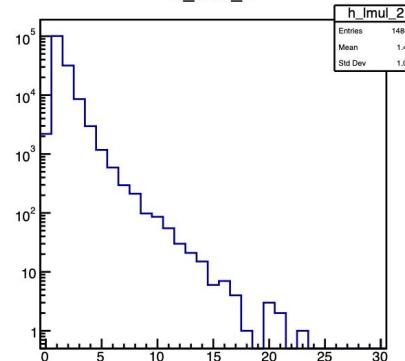
h_lmul_0



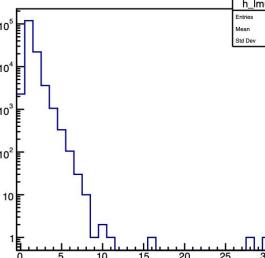
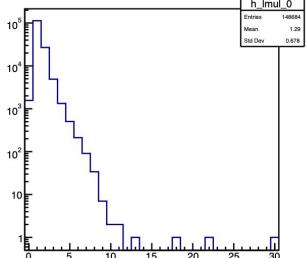
h_lmul_1



h_lmul_2



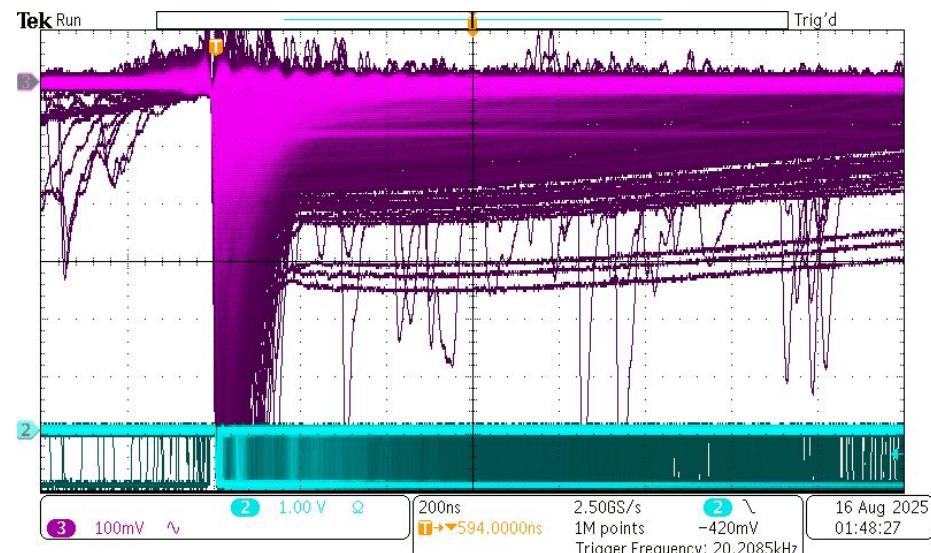
cf.) SHA:PZC:CSA(RC)=18:44:11, Vth=-56.1mV



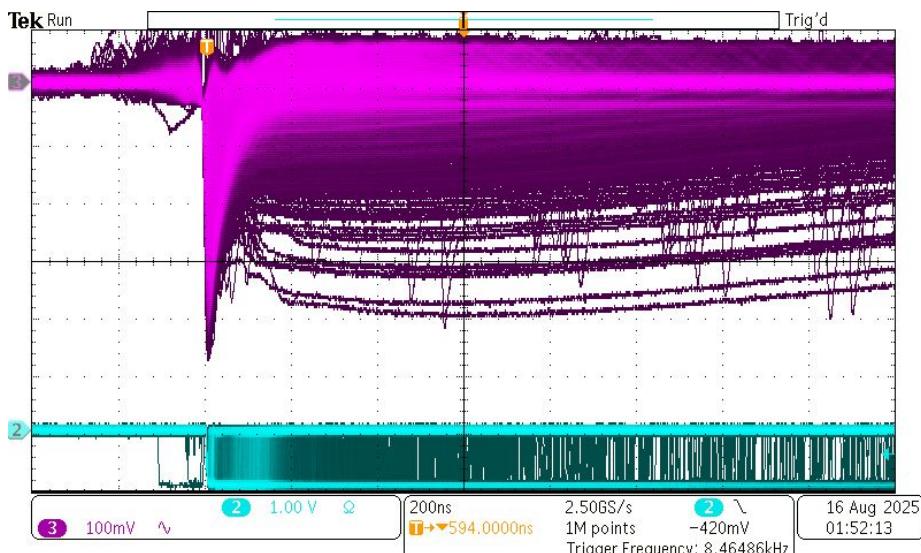
```
root -l -b -q 'tc_eff.C(348)'

Processing tc_eff.C(348)...
##### Efficiency #####
=====
denominator      : 77321
Wire Efficiency : 0.970319
Error            : 0.000601185
=====
l_bunbo[0]       : 139208
layer_Efficiency[0] : 0.981617
Error            : 0.000356708
=====
l_bunbo[1]       : 140102
layer_Efficiency[1] : 0.975354
Error            : 0.000409087
=====
l_bunbo[2]       : 140808
layer_Efficiency[2] : 0.970463
Error            : 0.000444474
=====
```

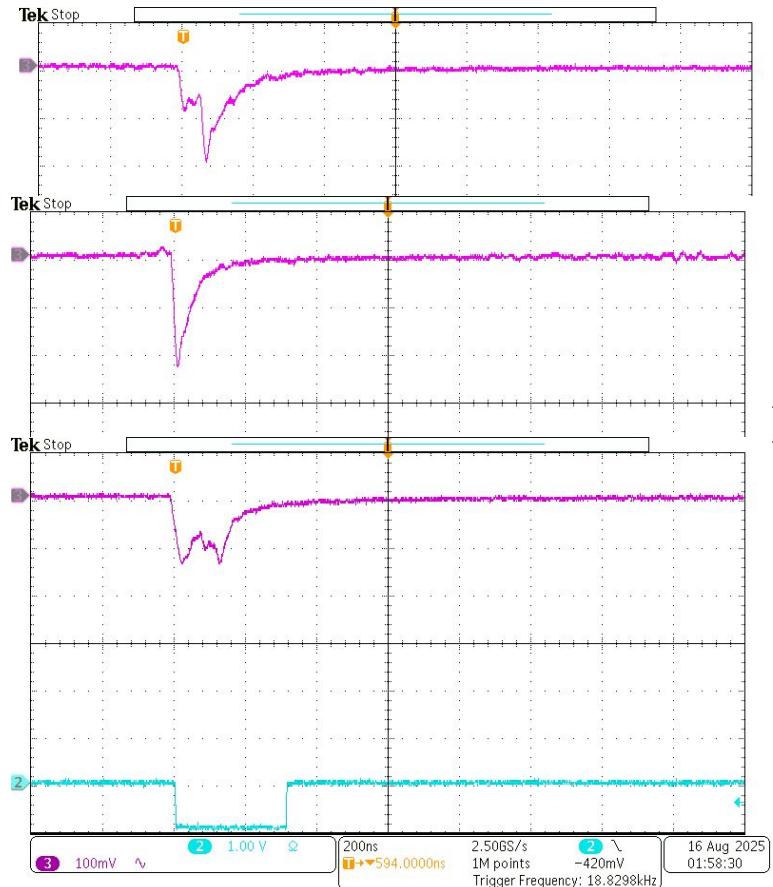
42:41:18, Vth=-29.7mV, ToT汚い方



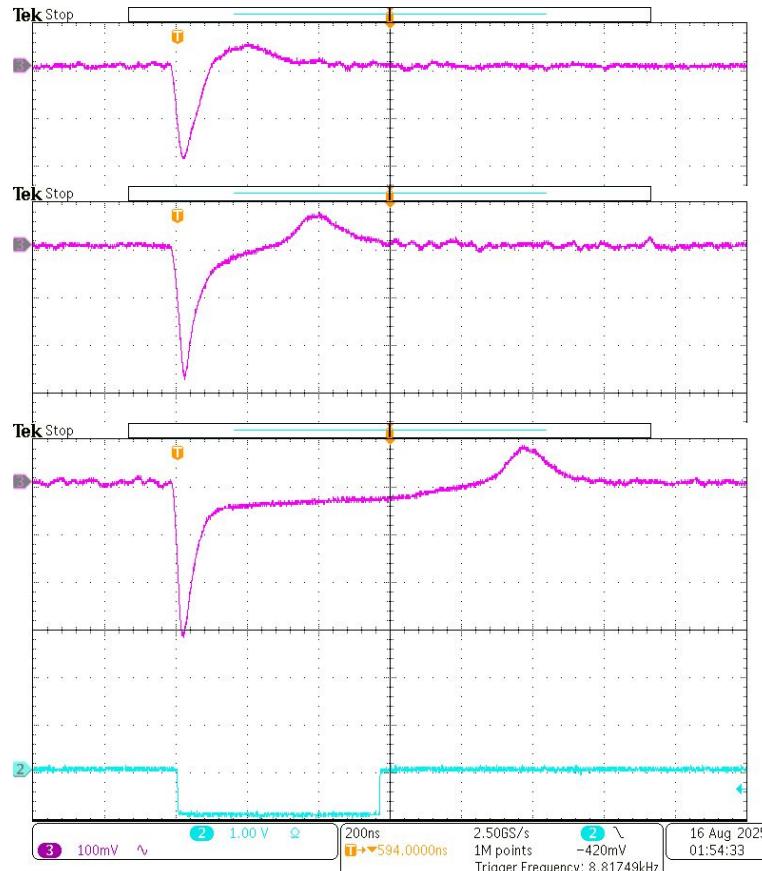
18:44:11, Vth=-56.1mV, ToT綺麗な方



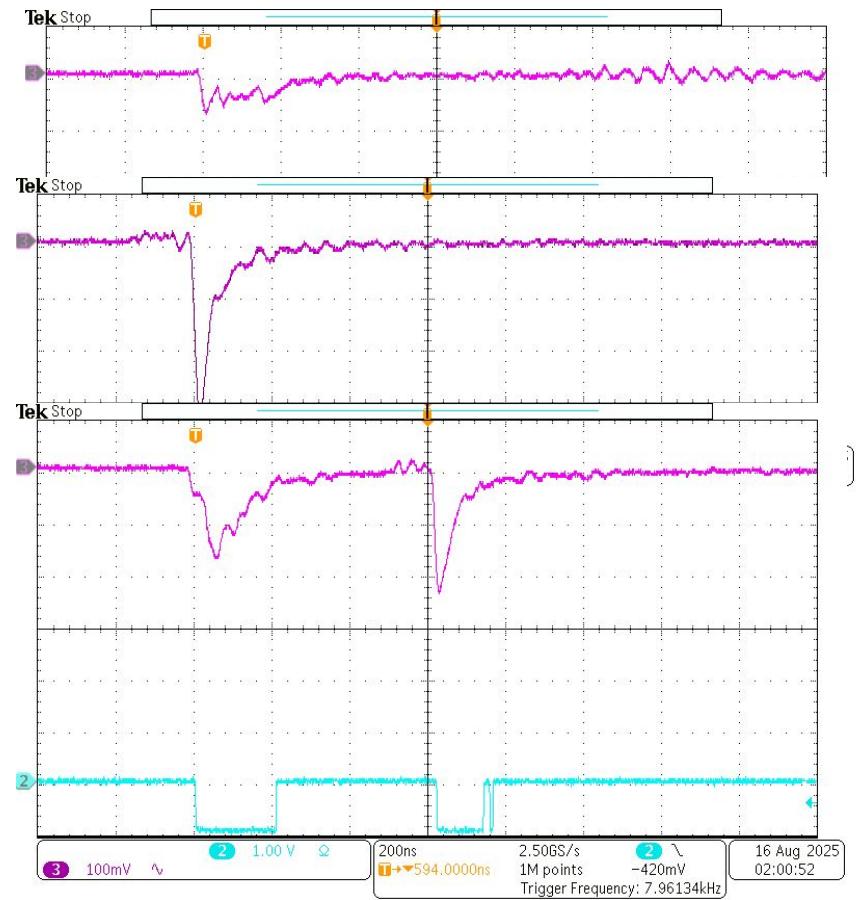
42:41:18, Vth=-29.7mV, ToT汚い方



18:44:11, Vth=-56.1mV, ToT綺麗な方



42:41:18, V_{th}=-29.7mV, ToT汚い方



18:44:11, V_{th}=-56.1mV, ToT綺麗な方

