

Meeting 9/27

木村 佑斗

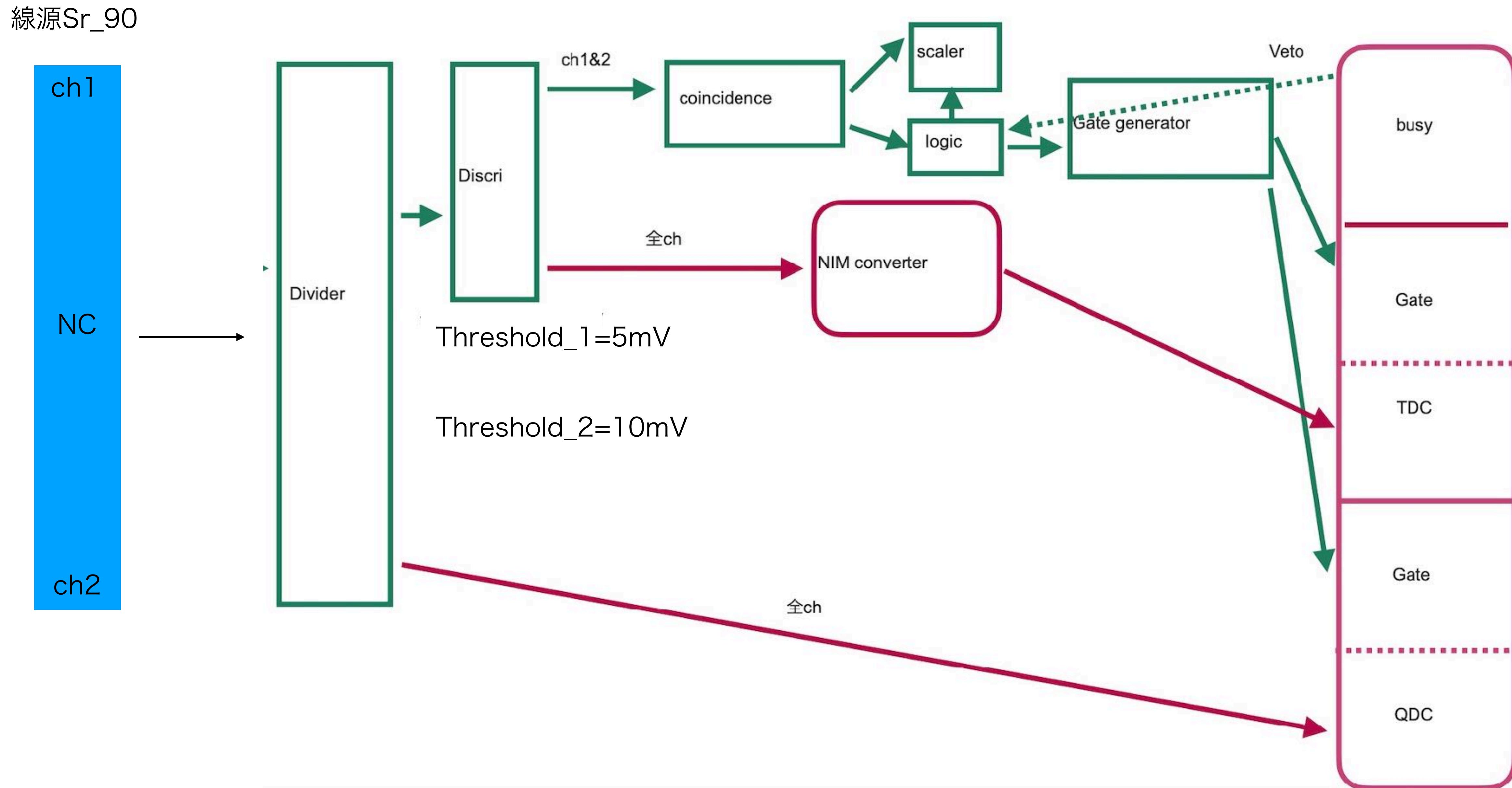
内容

- 報告
- Attenuation Length測定
- TDC 2 peak問題の原因？

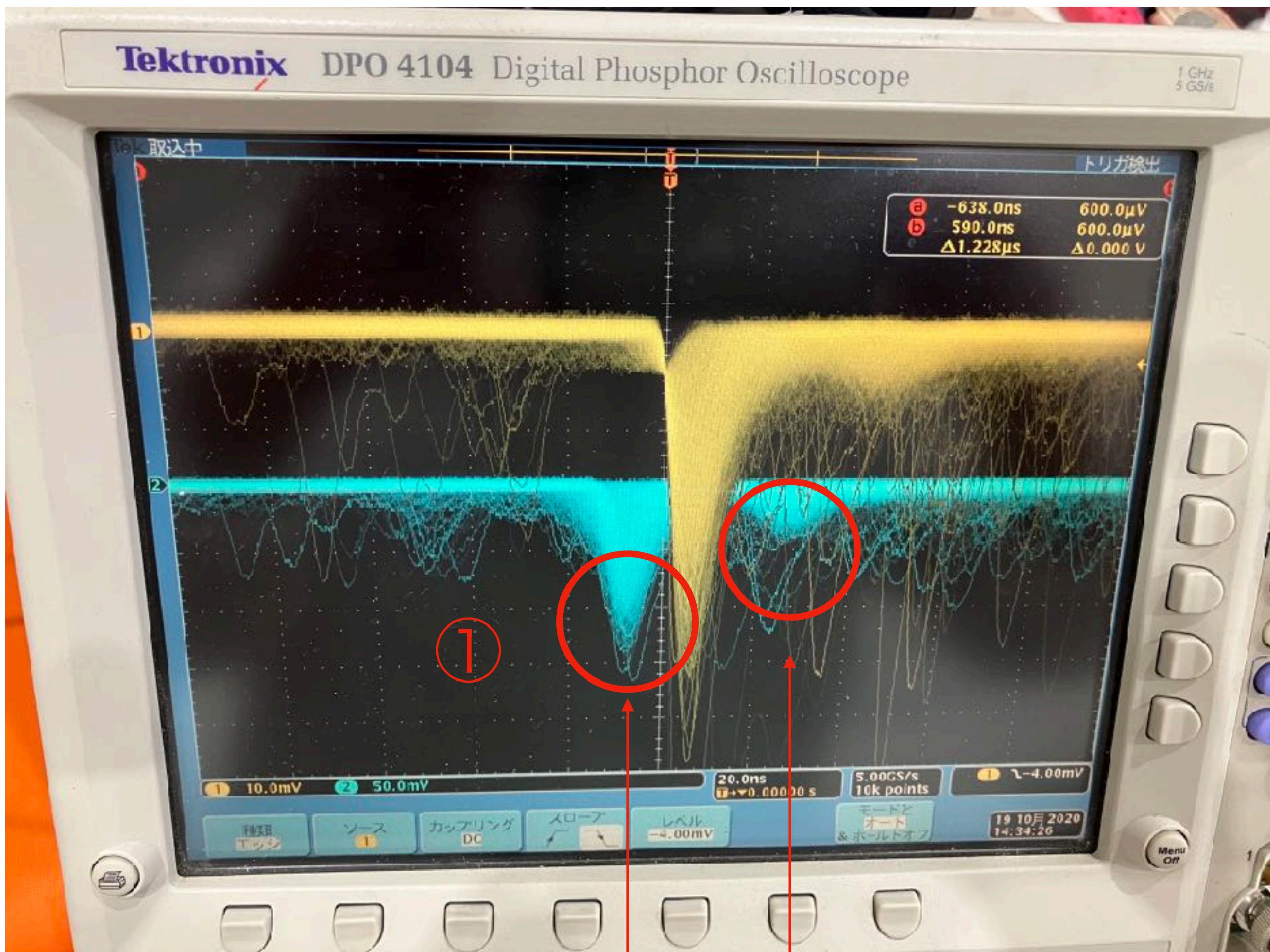
報告

- SPADI-A合宿頑張りました。
- CNCのAttenuation lengthのデータを取り終えた。

Attenuation Length setup

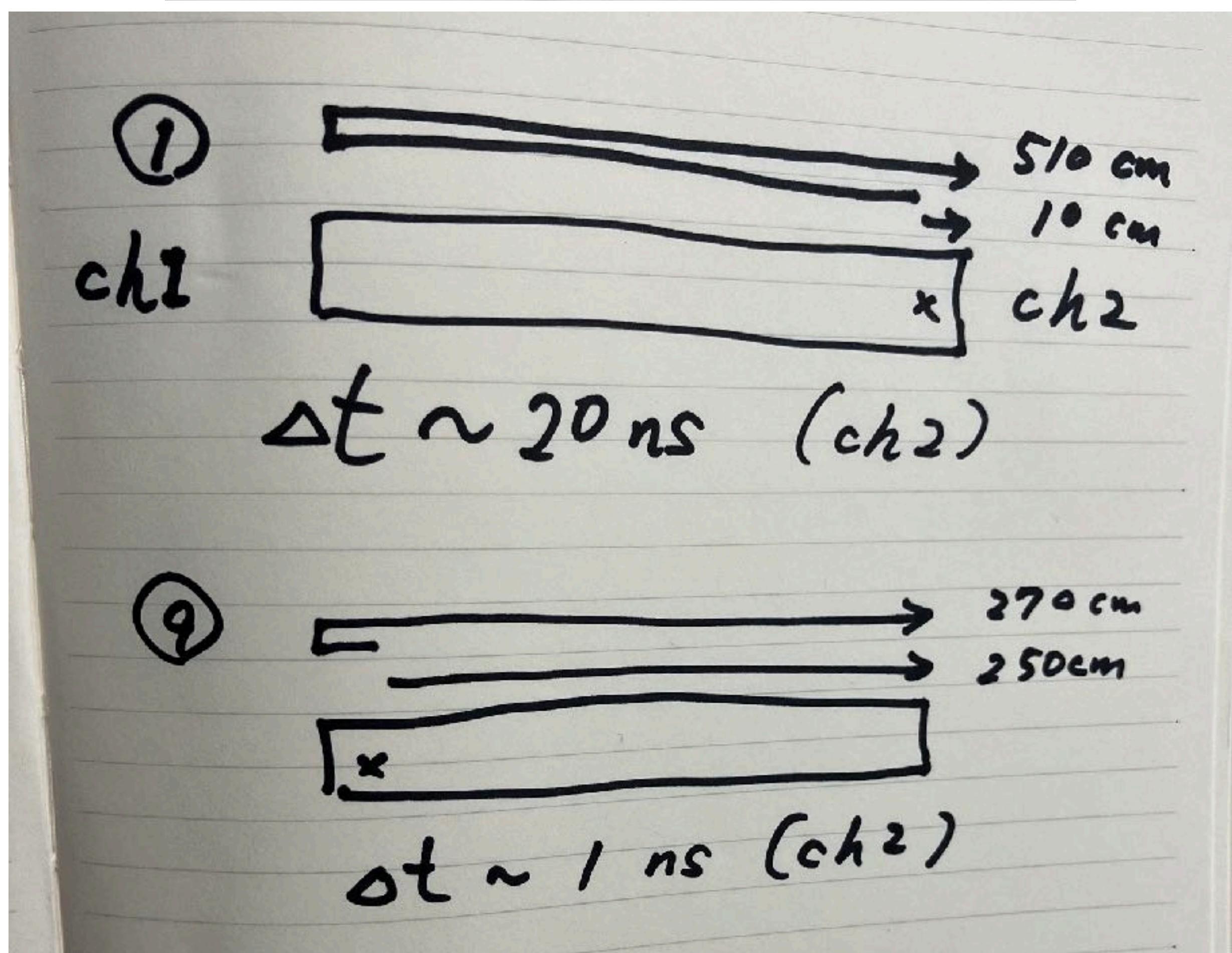
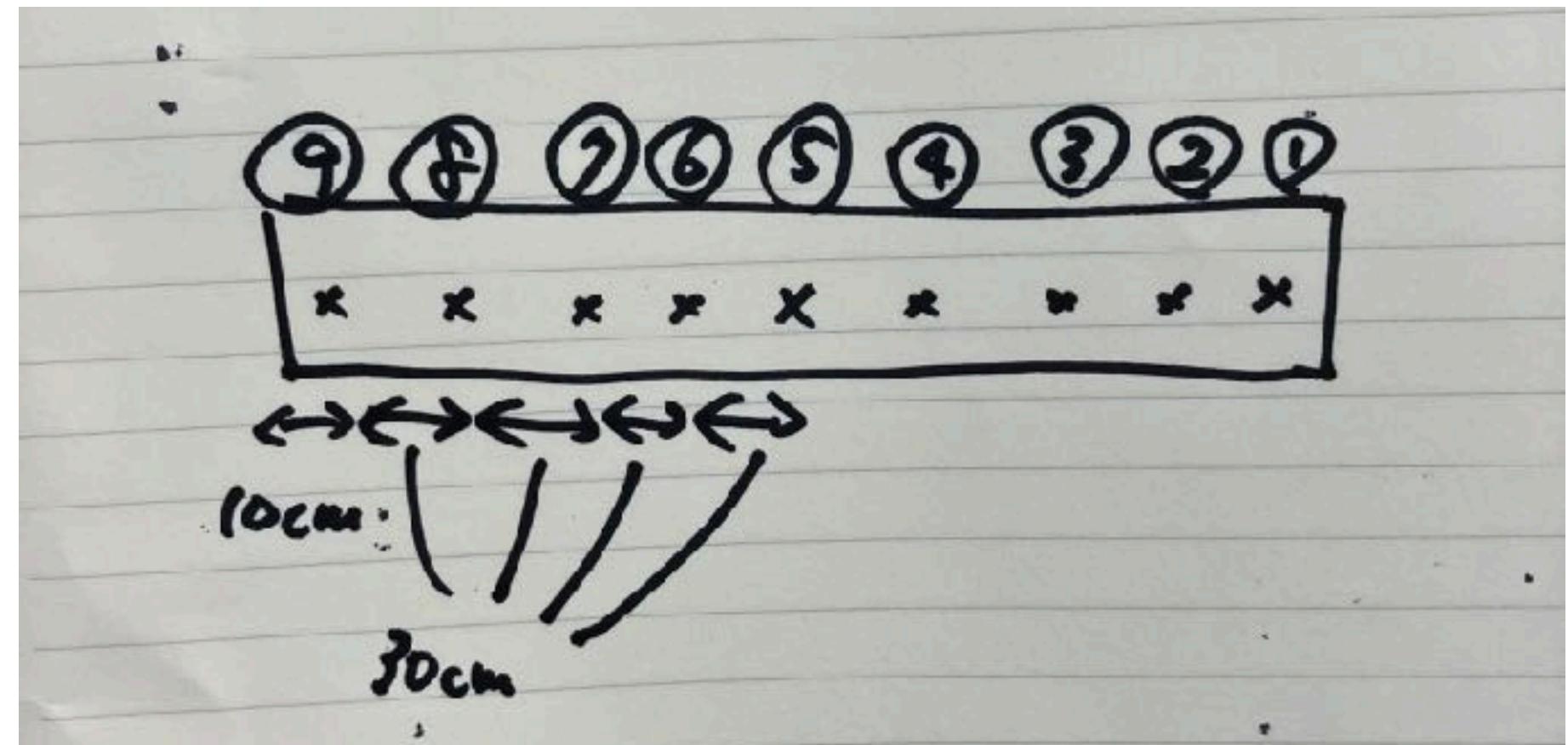


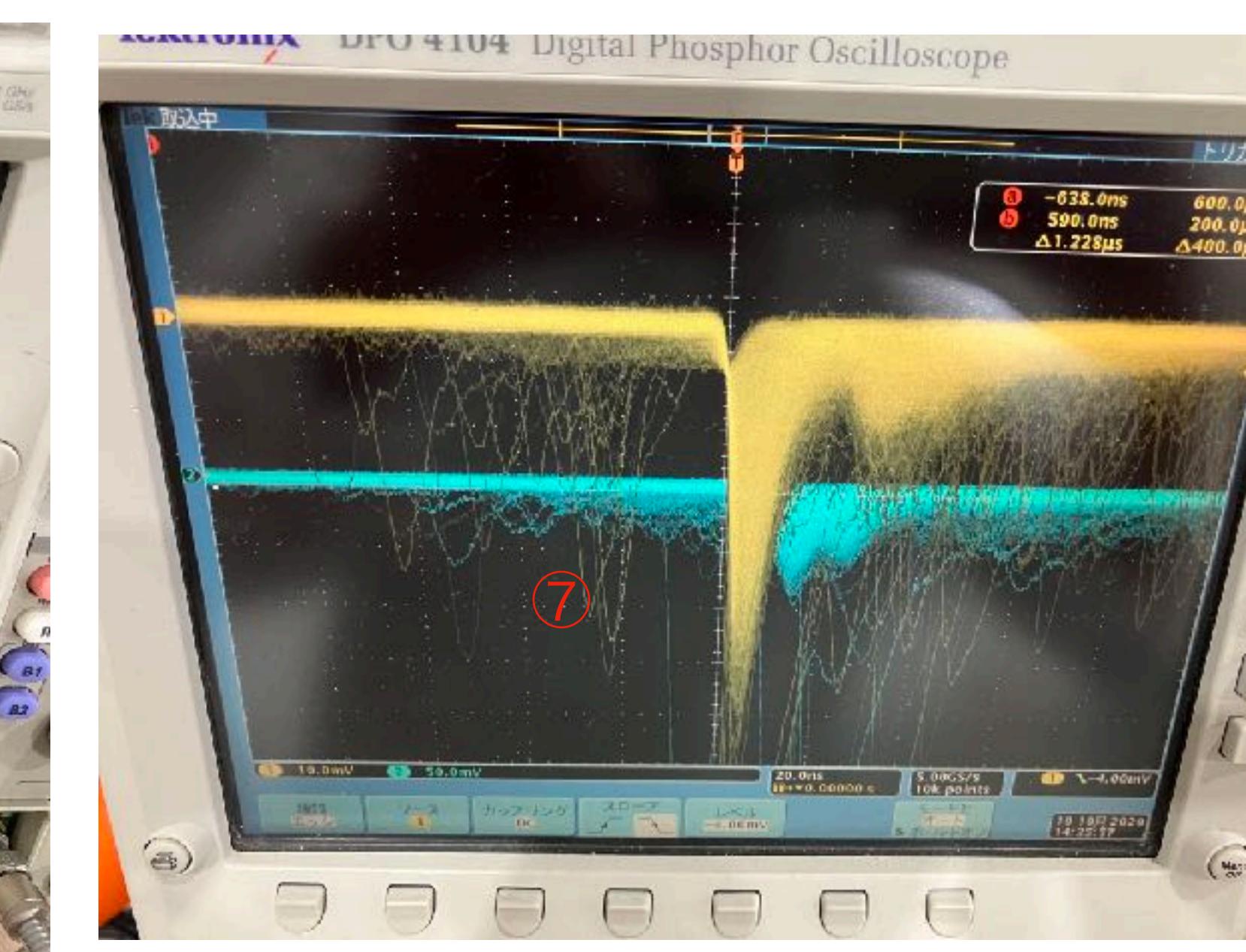
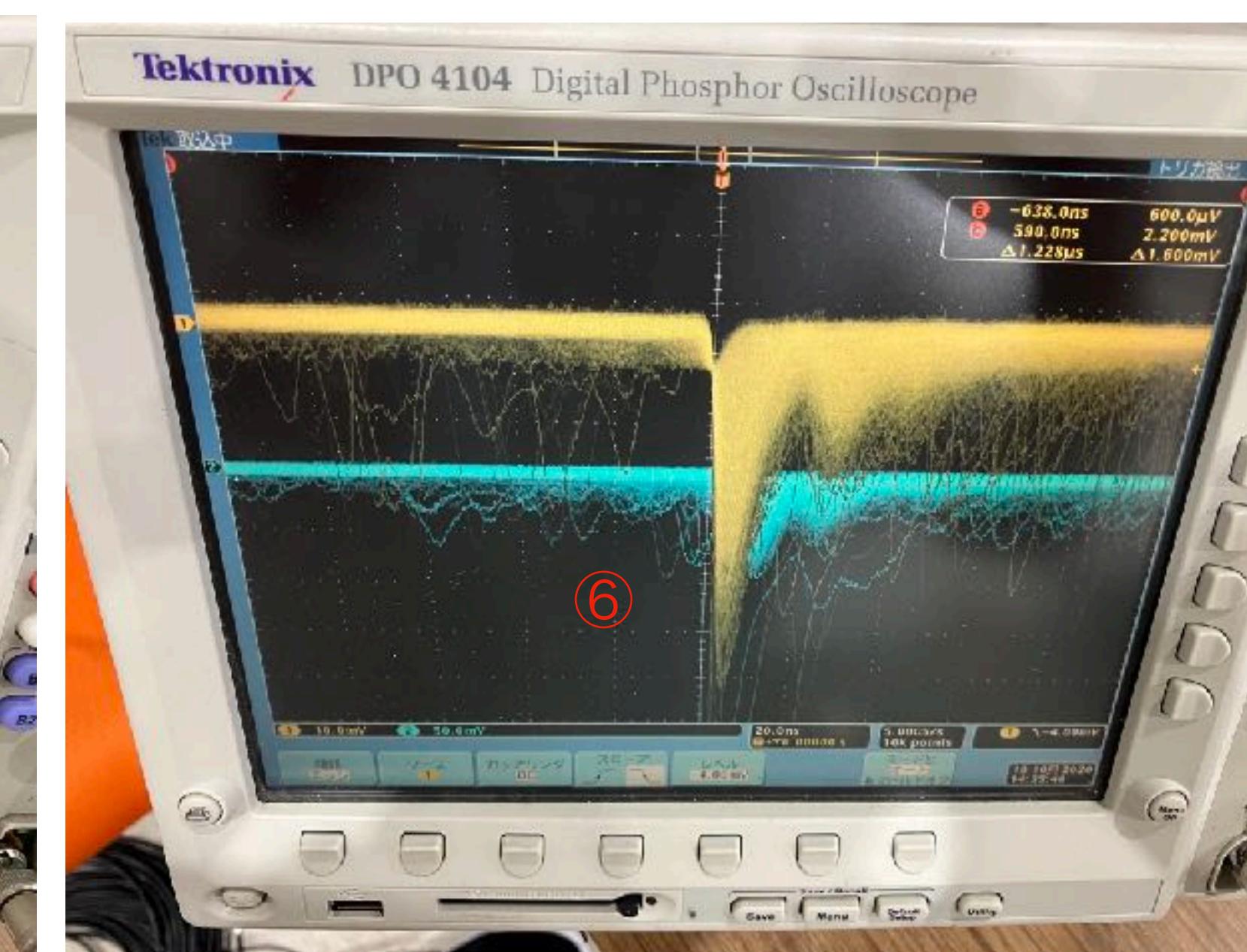
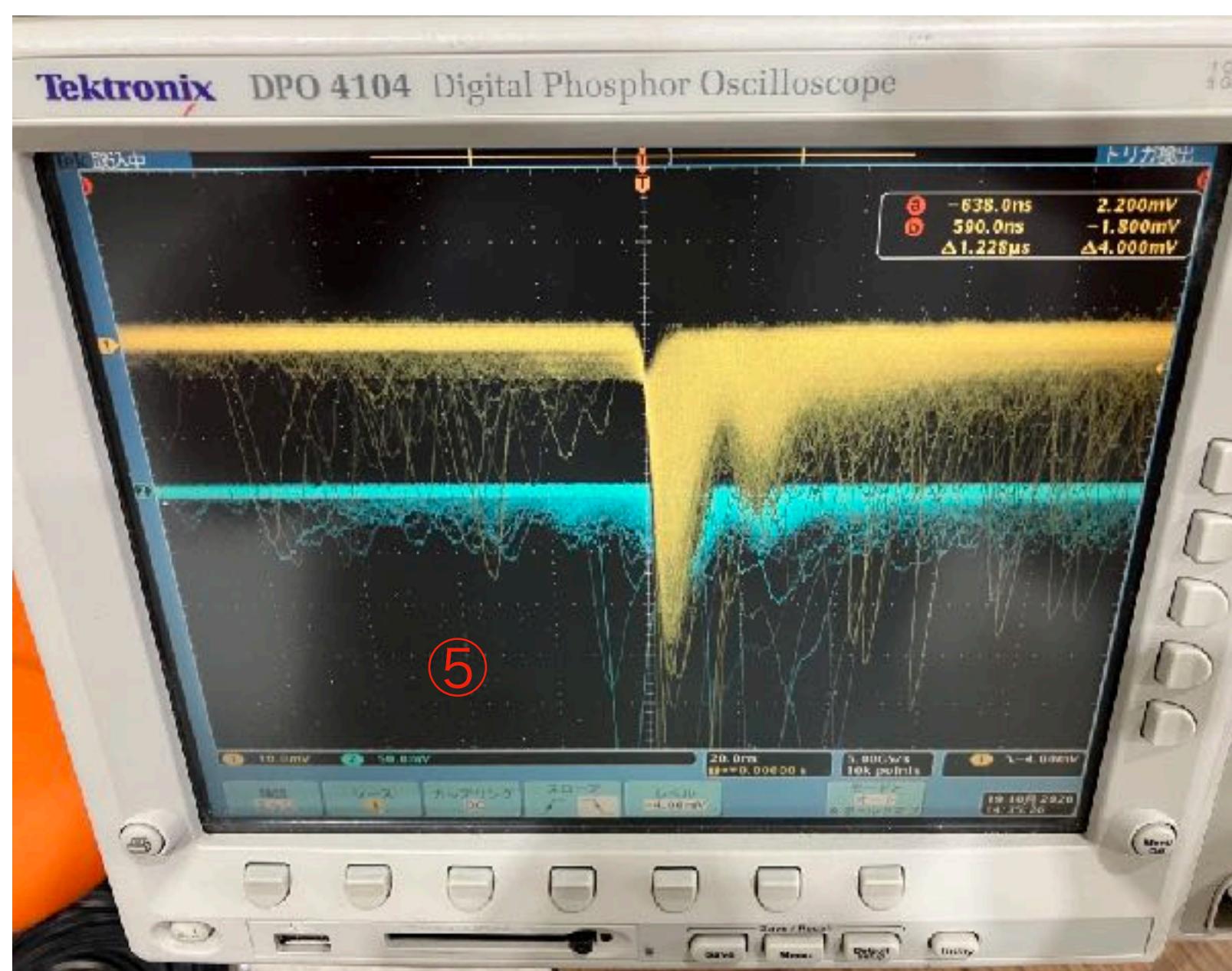
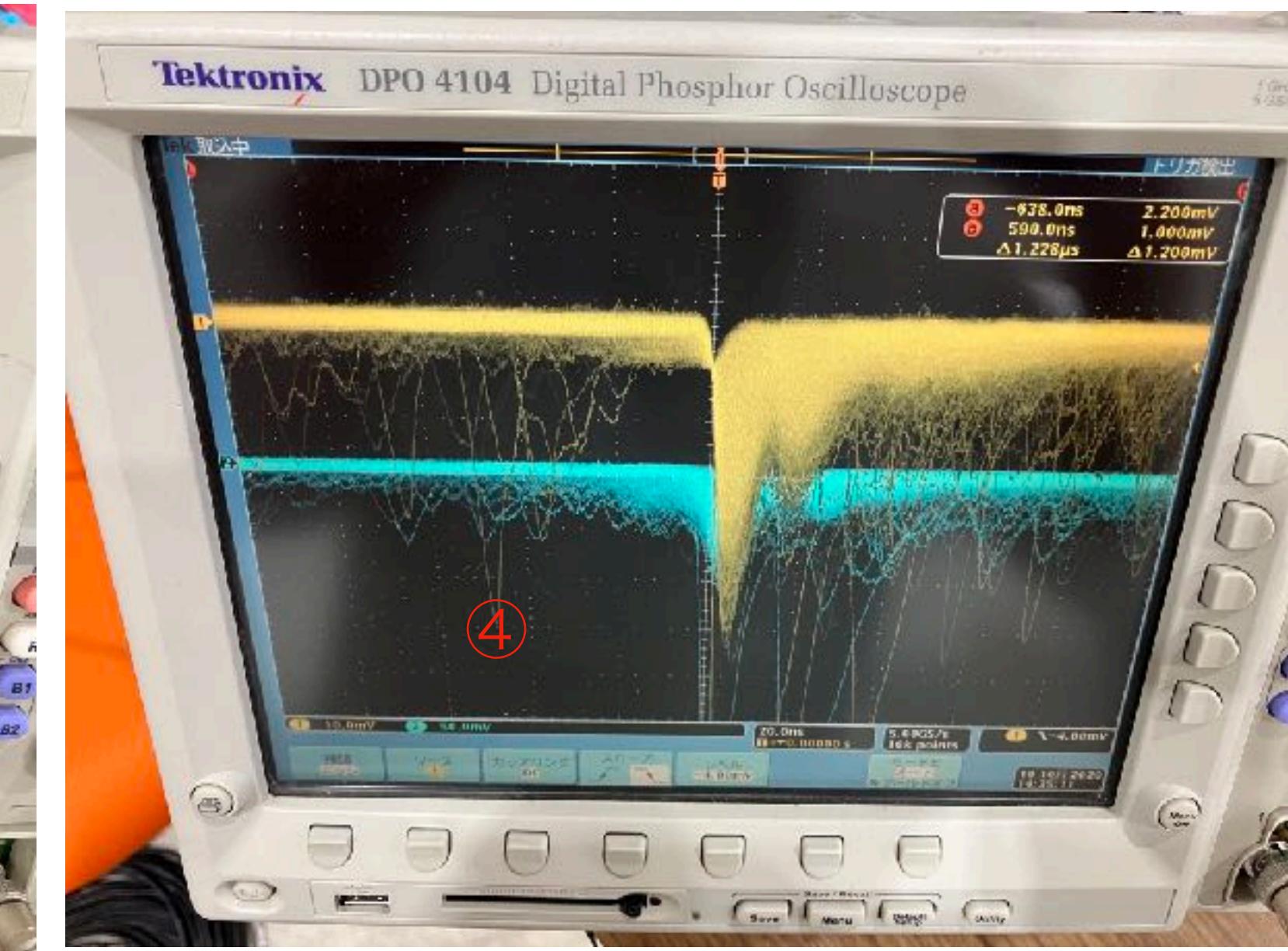
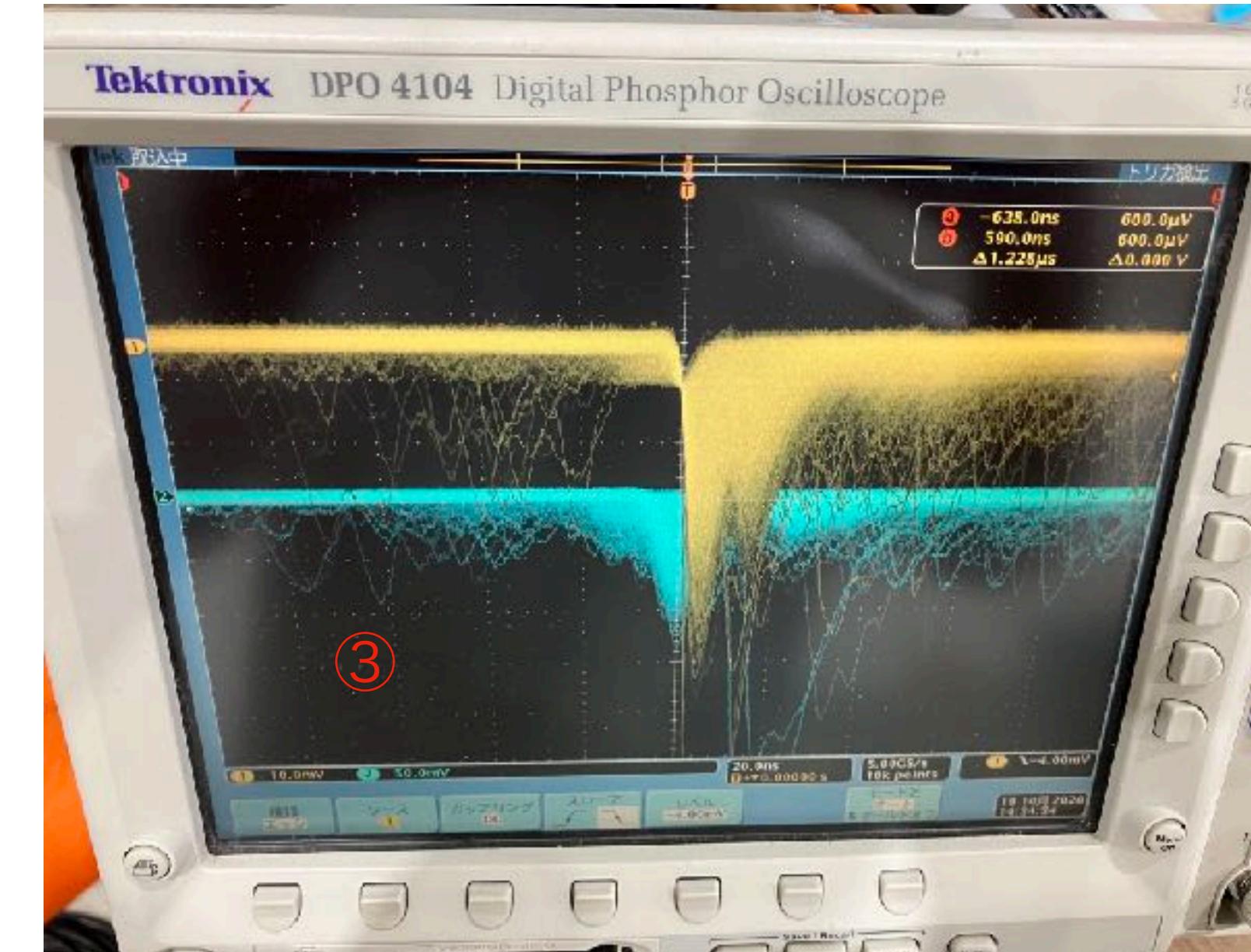
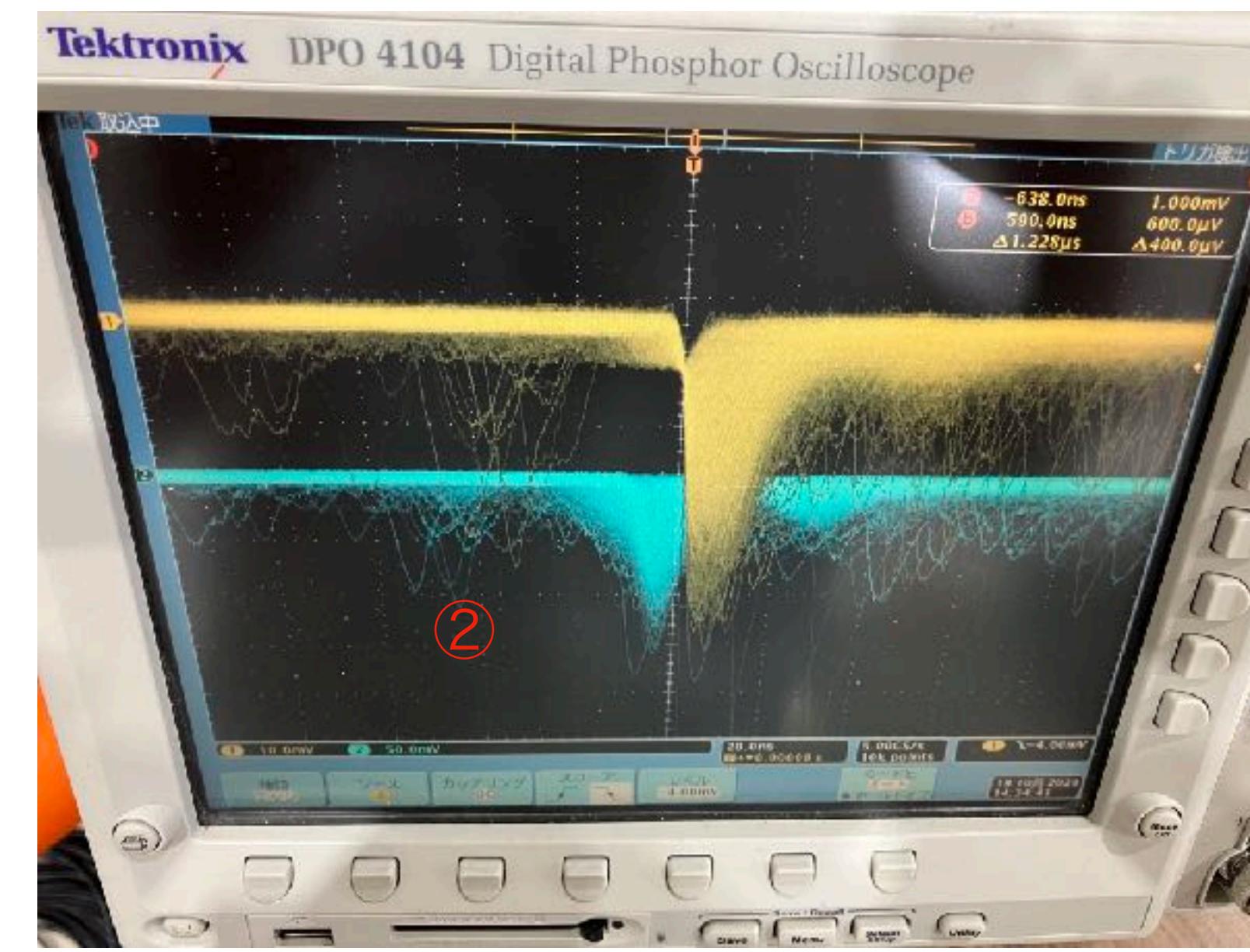
Attenuation Length

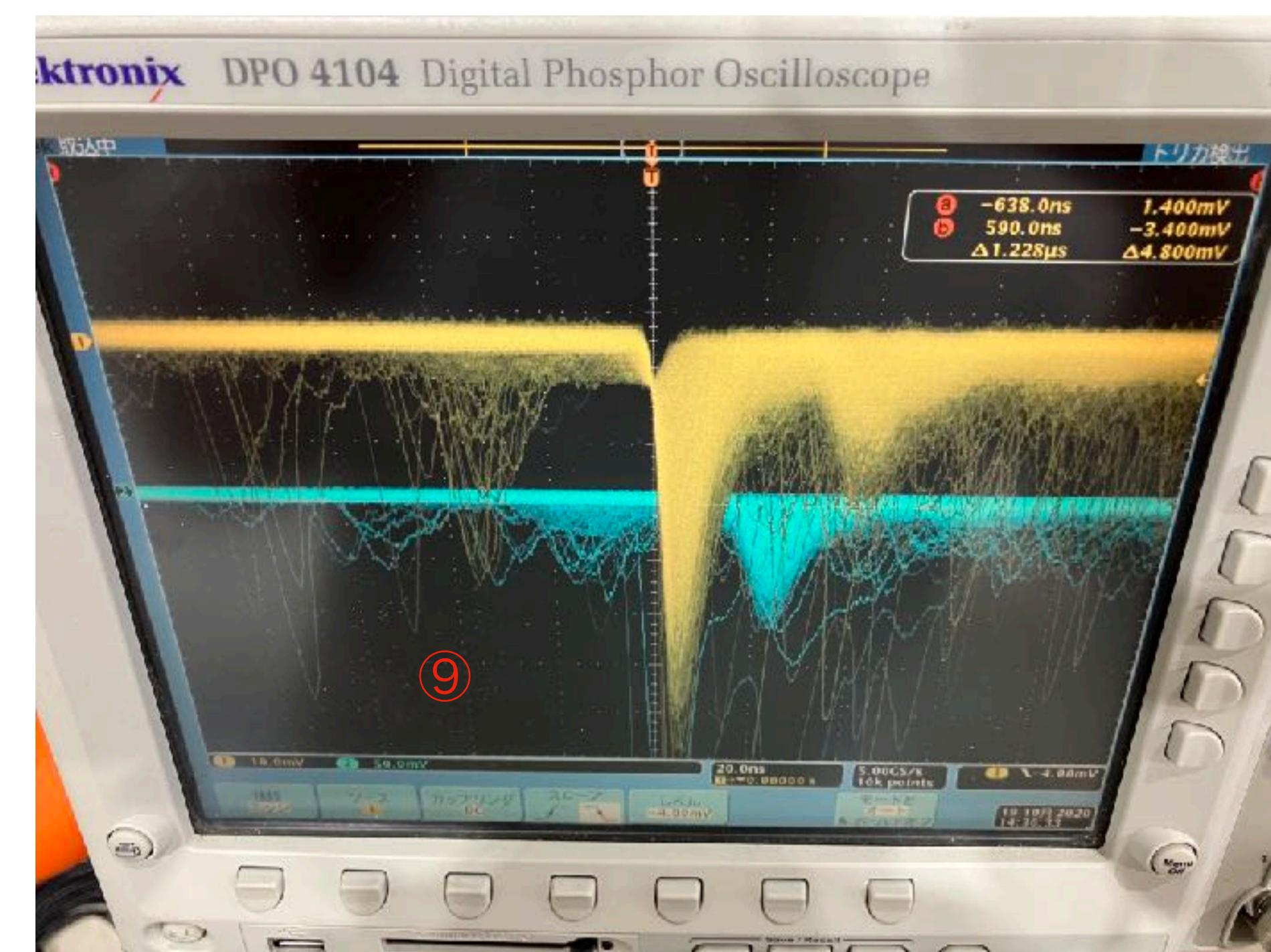
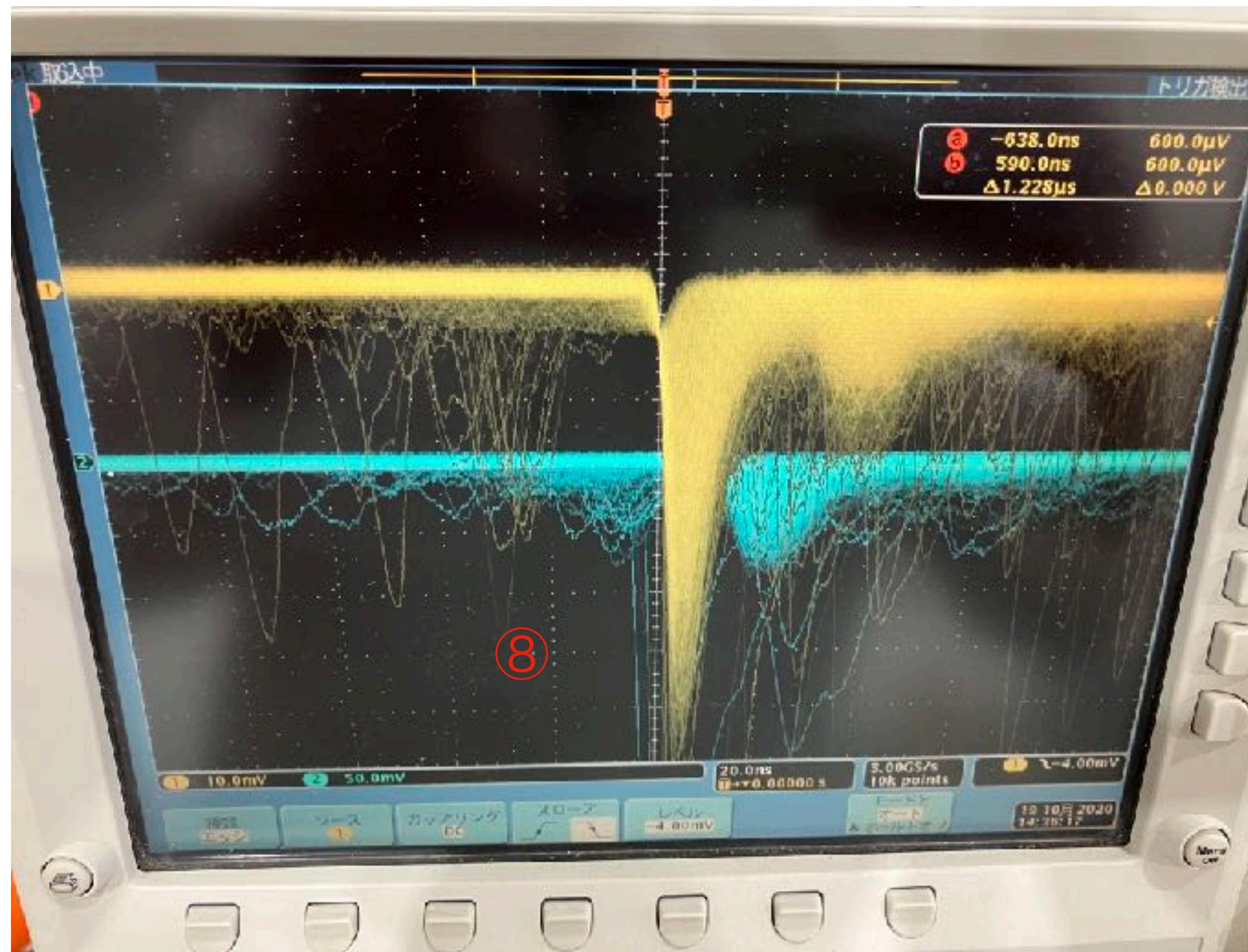


直接波と第1反射波が見える

黄色の方は直接波と第1反射波が重なっている







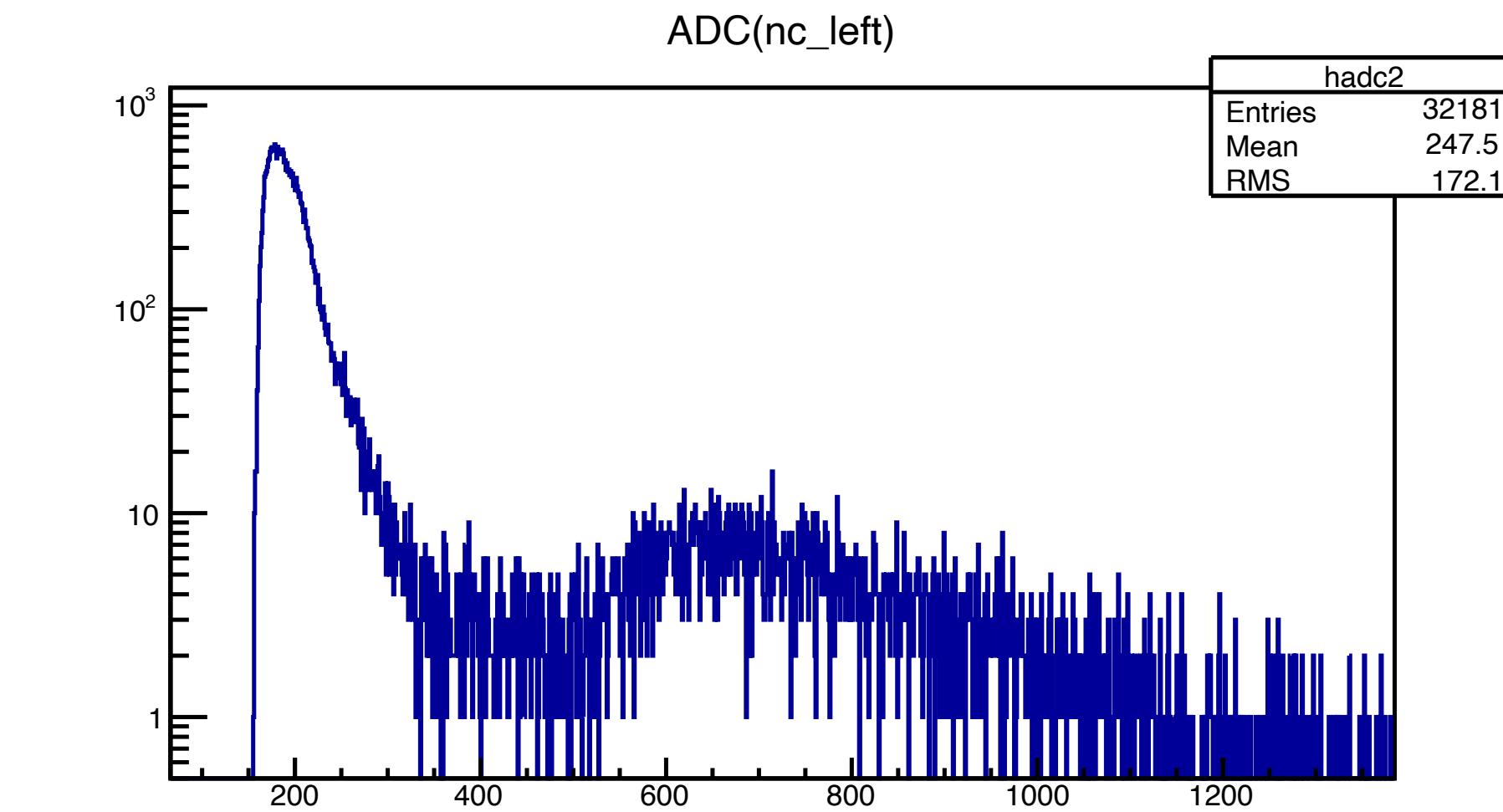
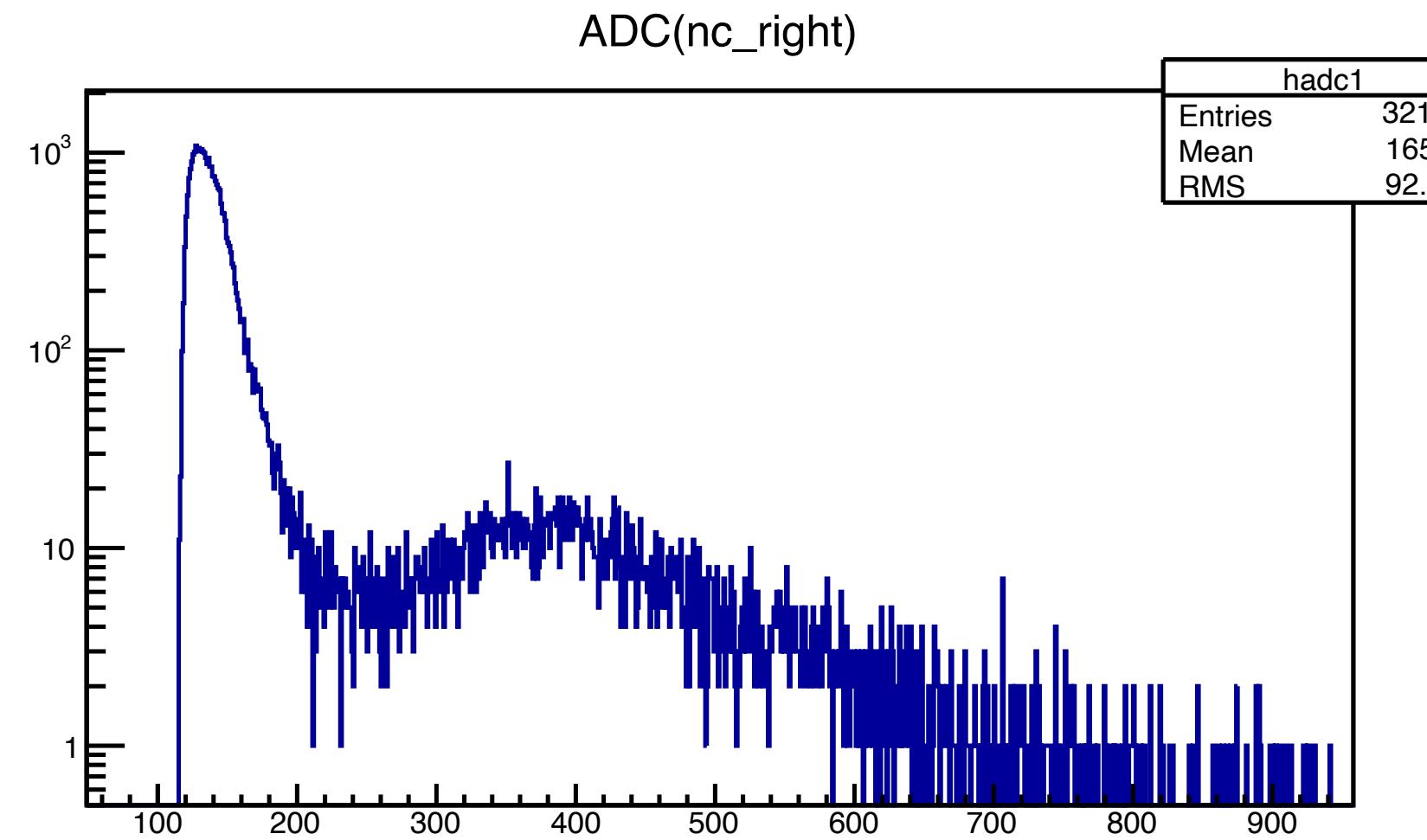
- ・黄色(ch1)は信号が分かれていき、青(ch2)は信号が重なっていっている。

Attenuation Length

BG

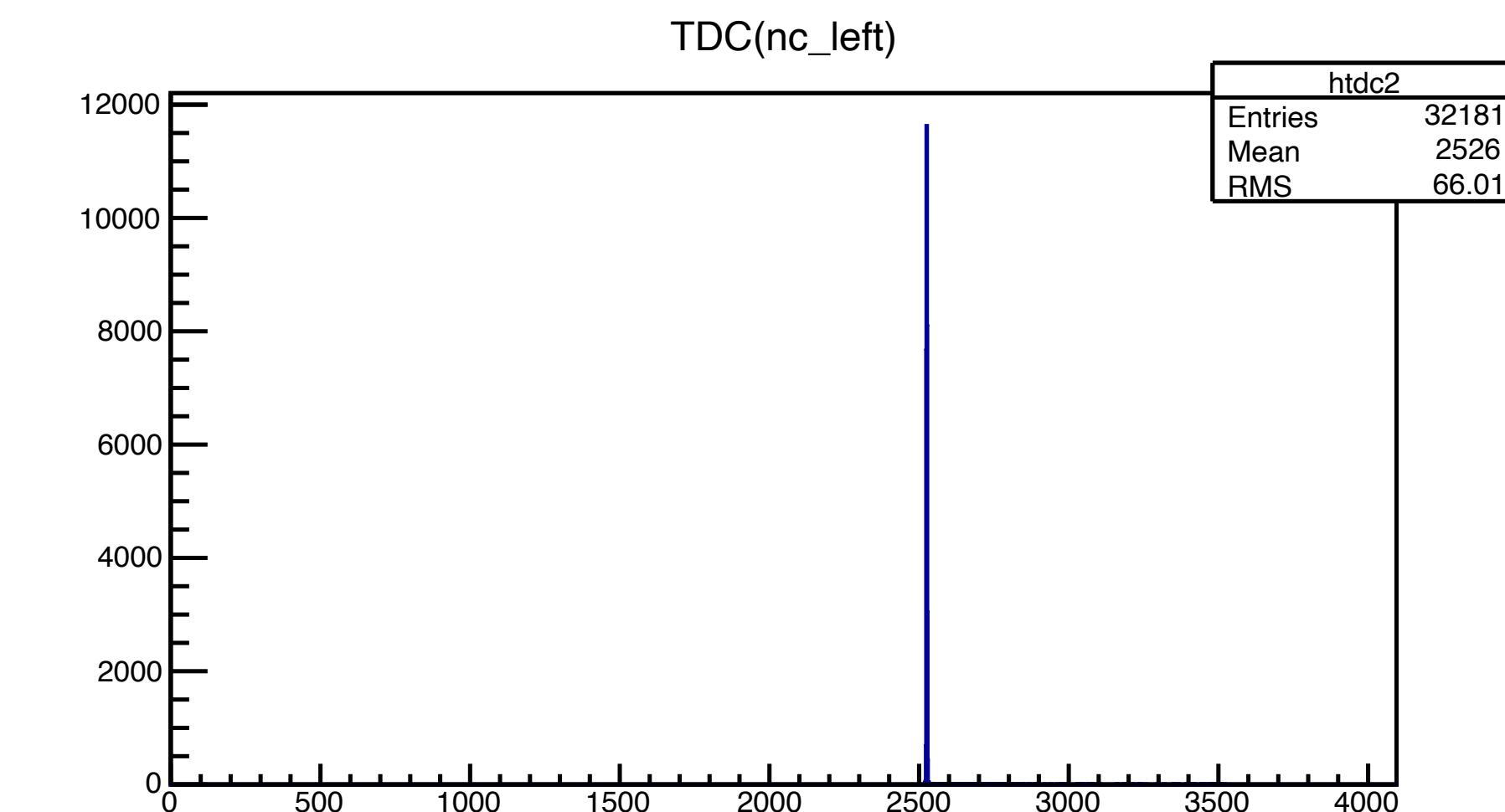
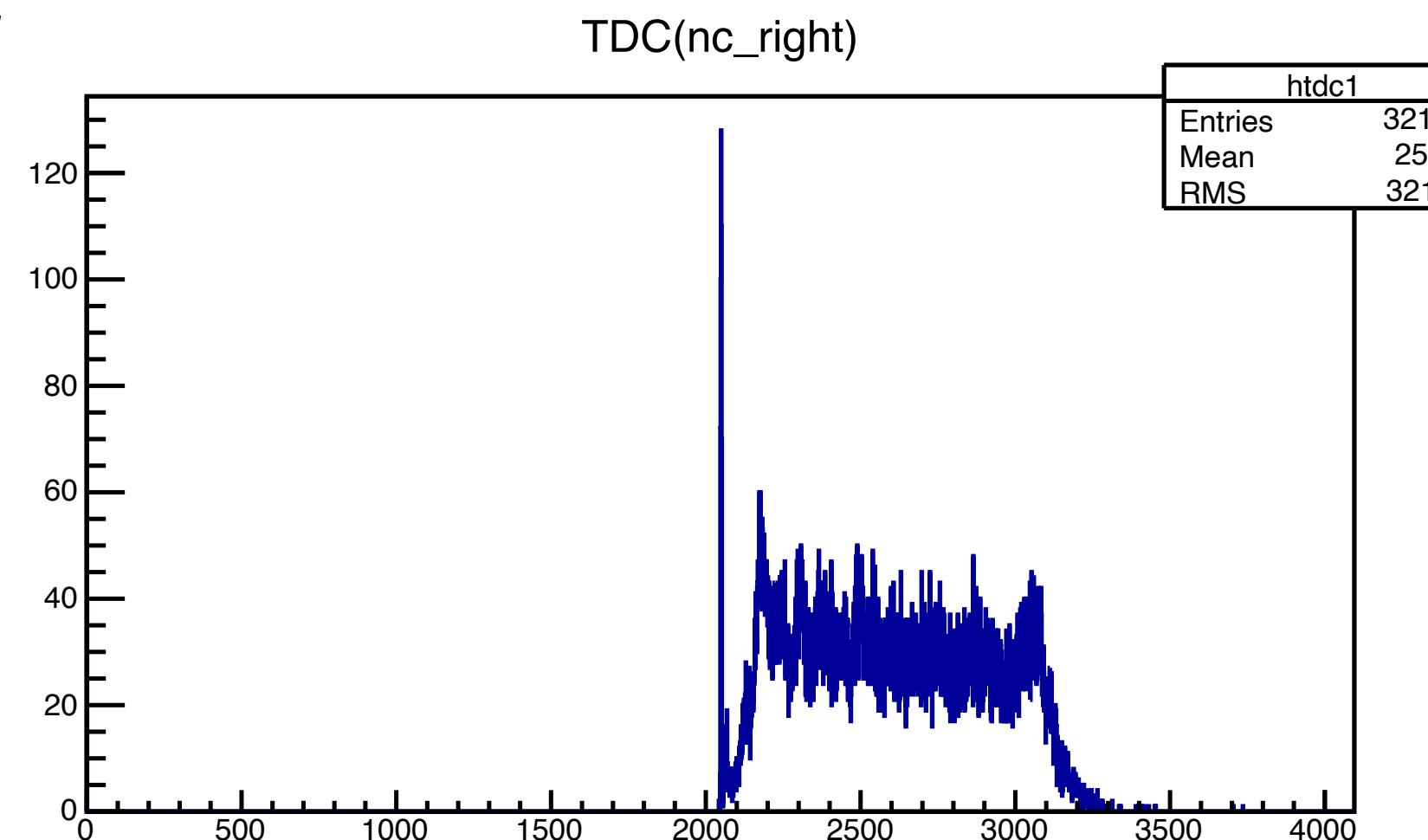
宇宙線・環境放射線

- mipのようなものが見えている



- 宇宙線がランダムな位置に入るので

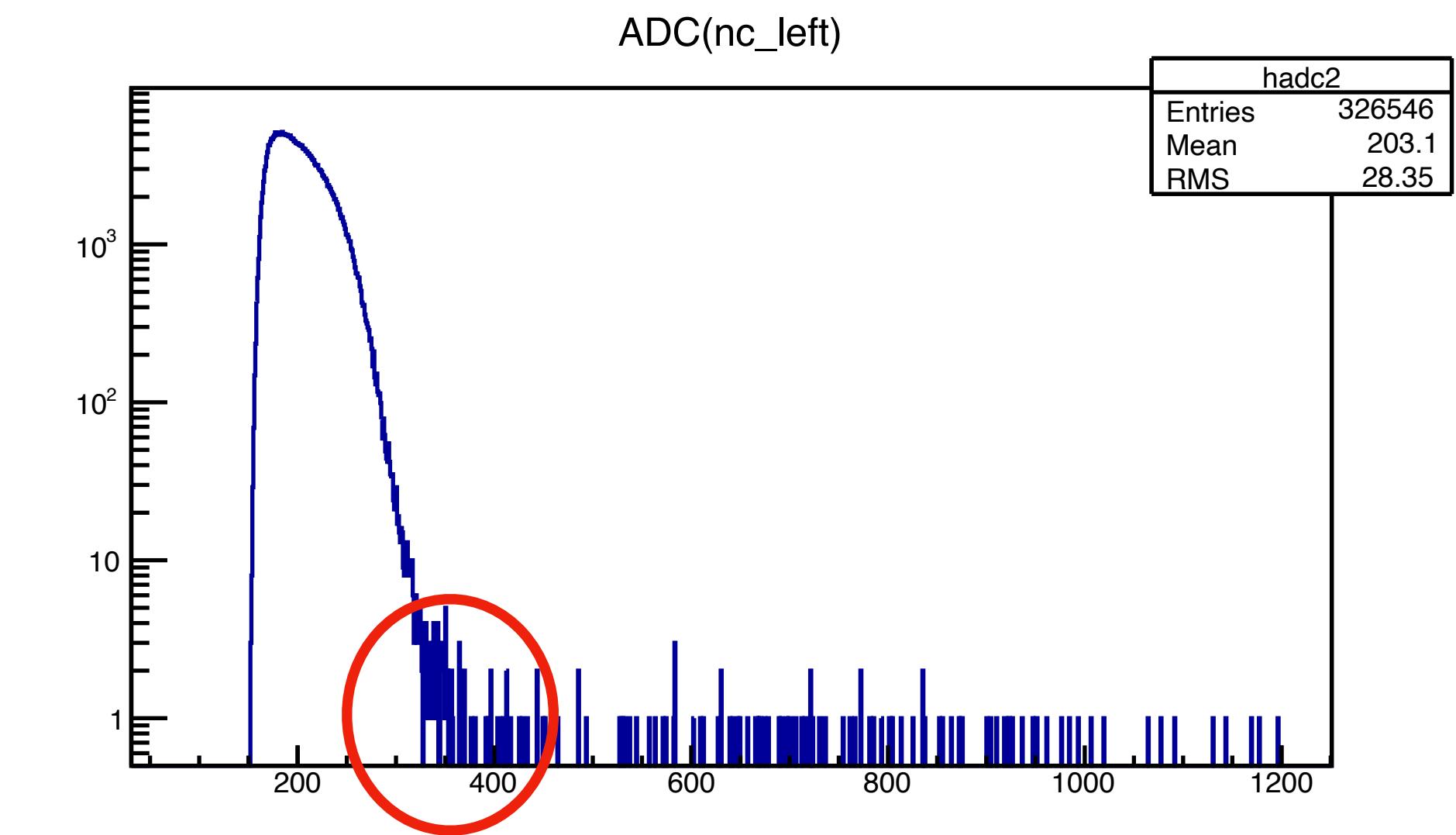
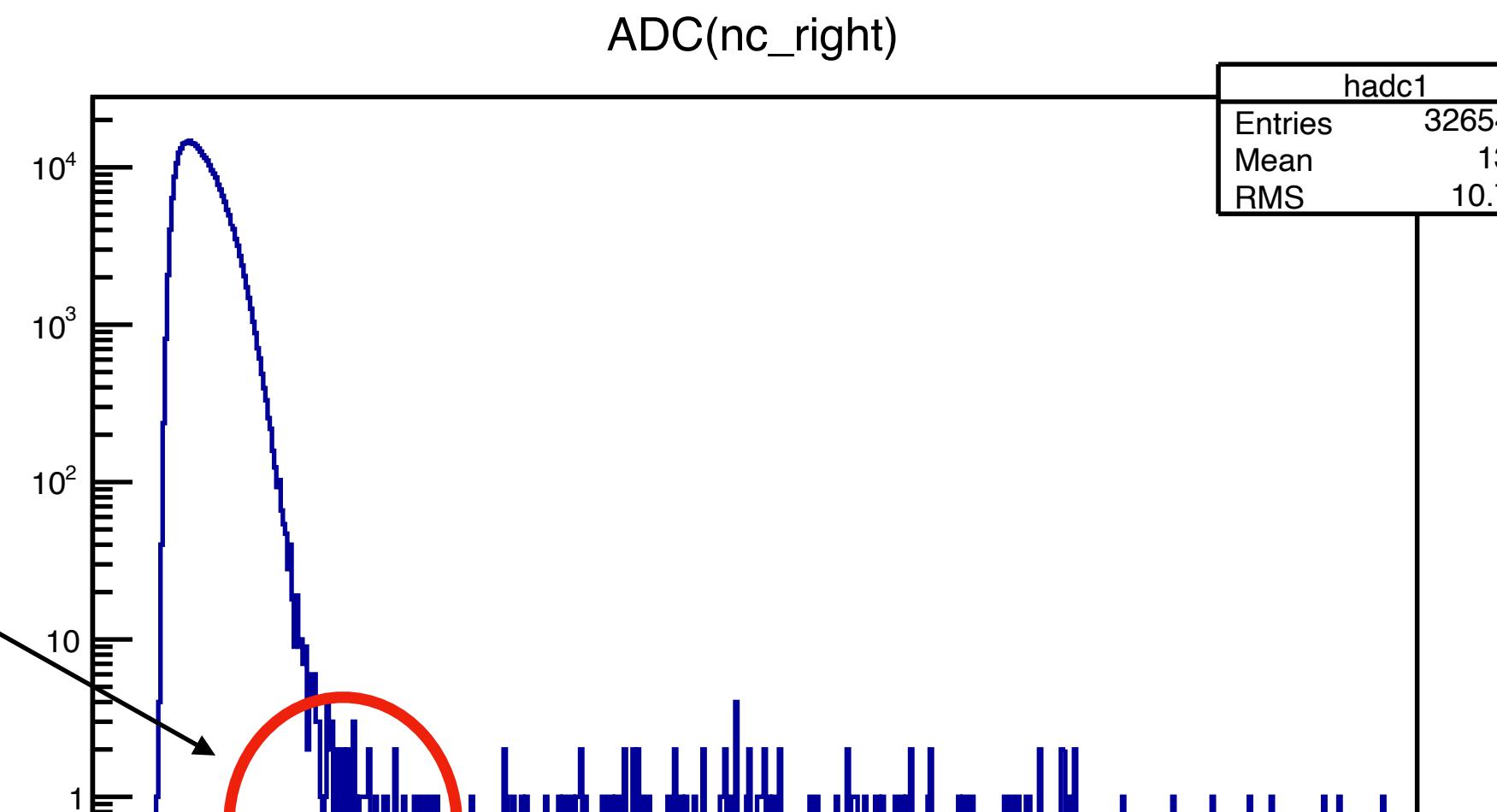
TDCに広い幅がある



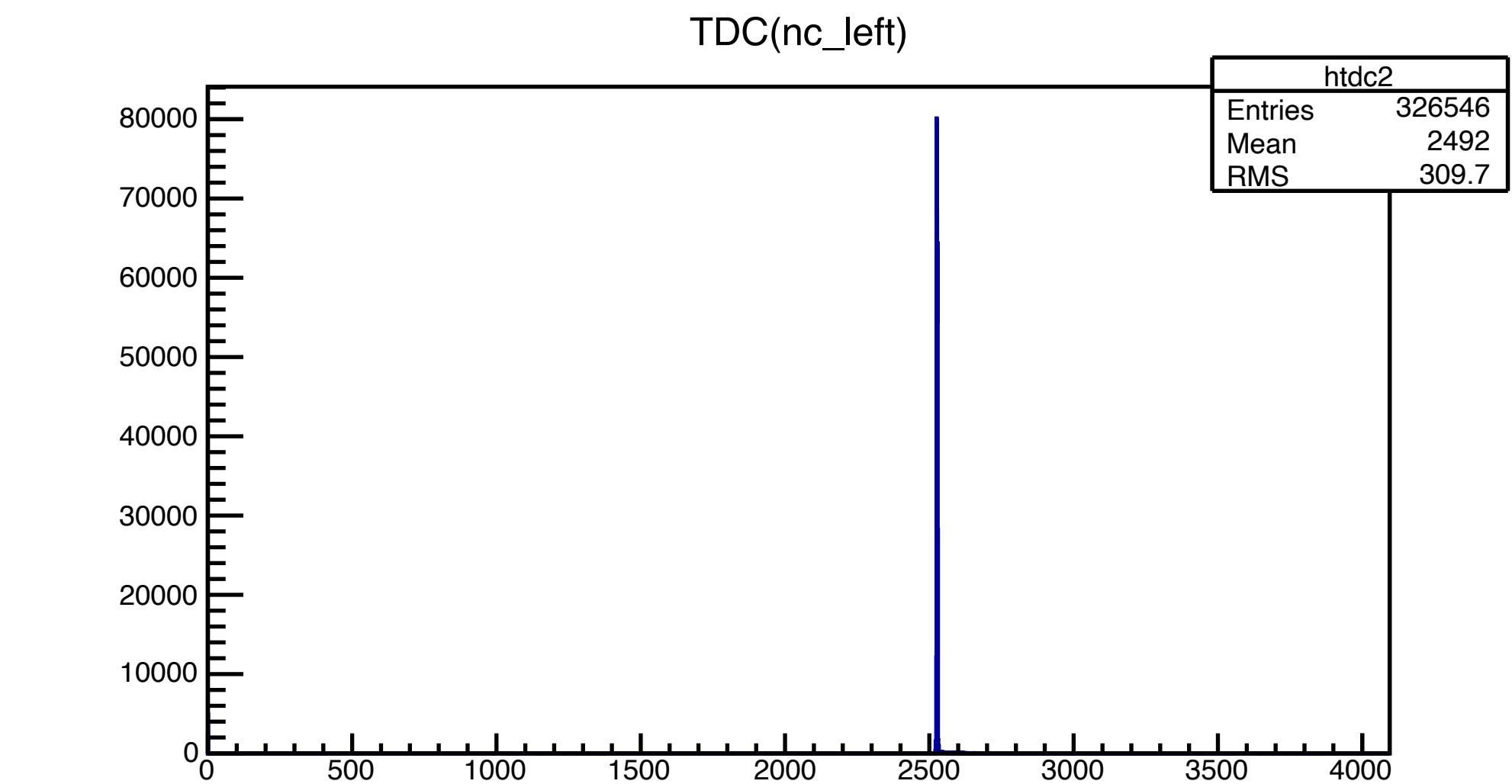
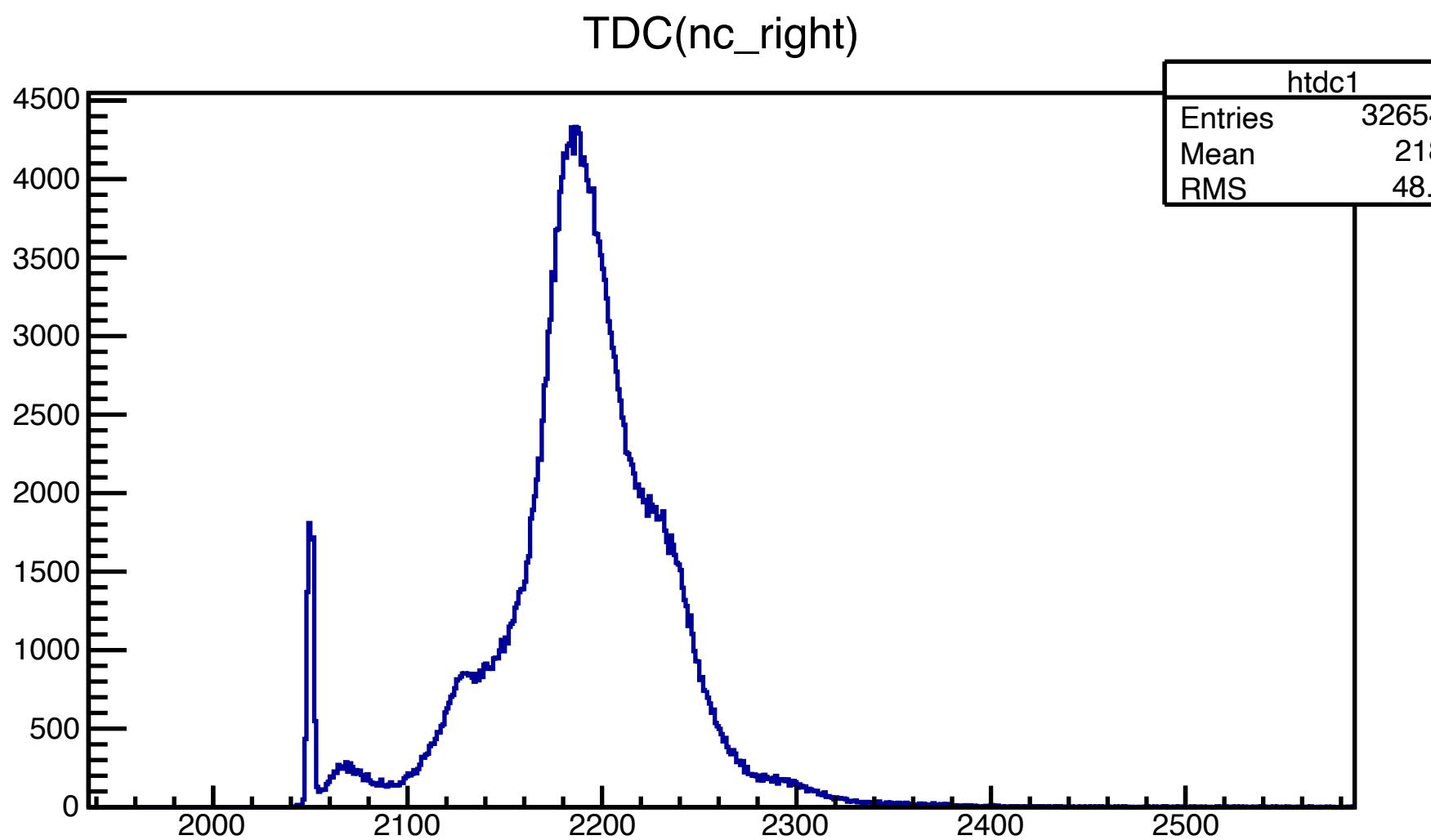
Attenuation Length

①

ゼロになる点(Tail point)
をfitで求める



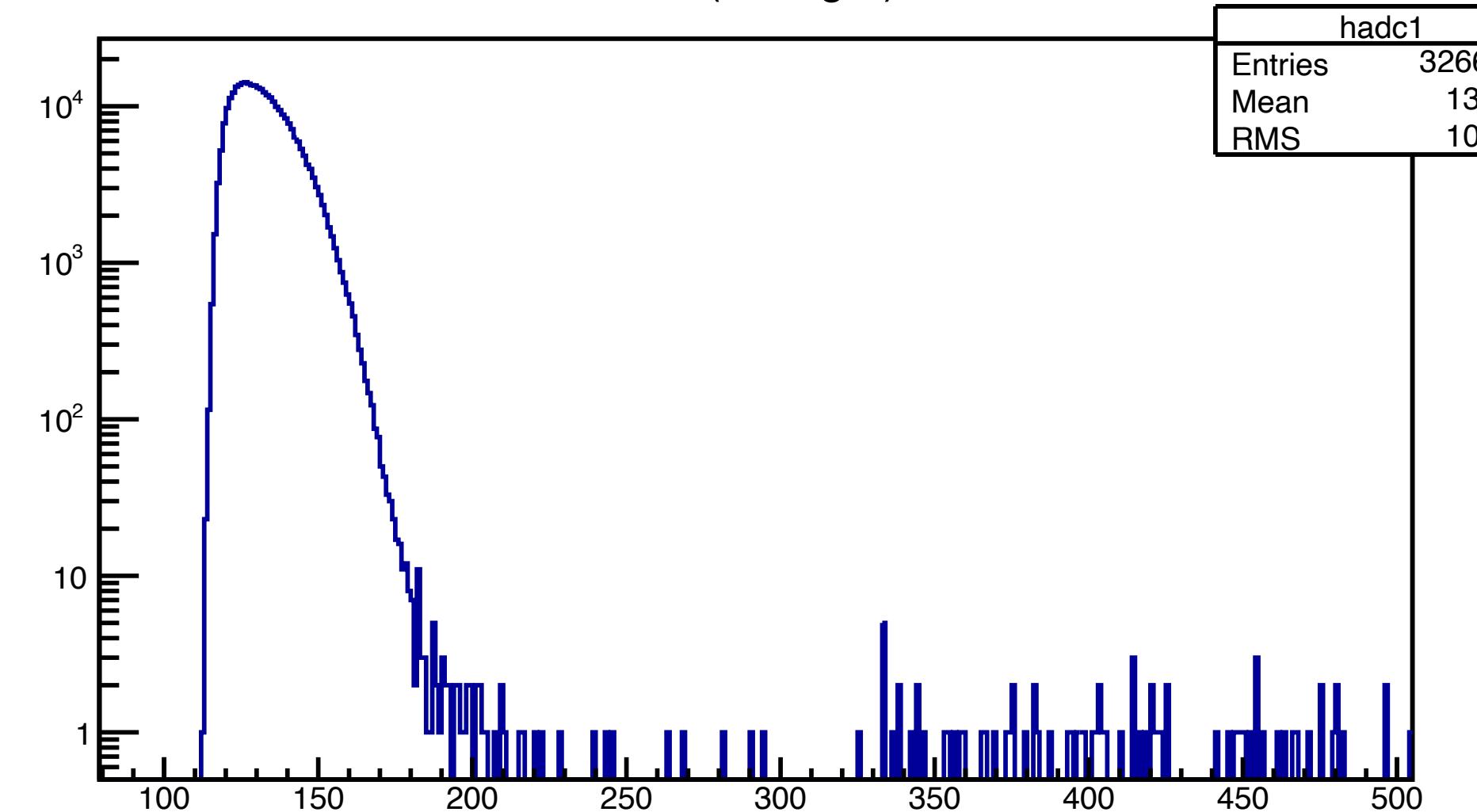
明らかな2つのpeakと
大きいピークの中に構造
が見える。



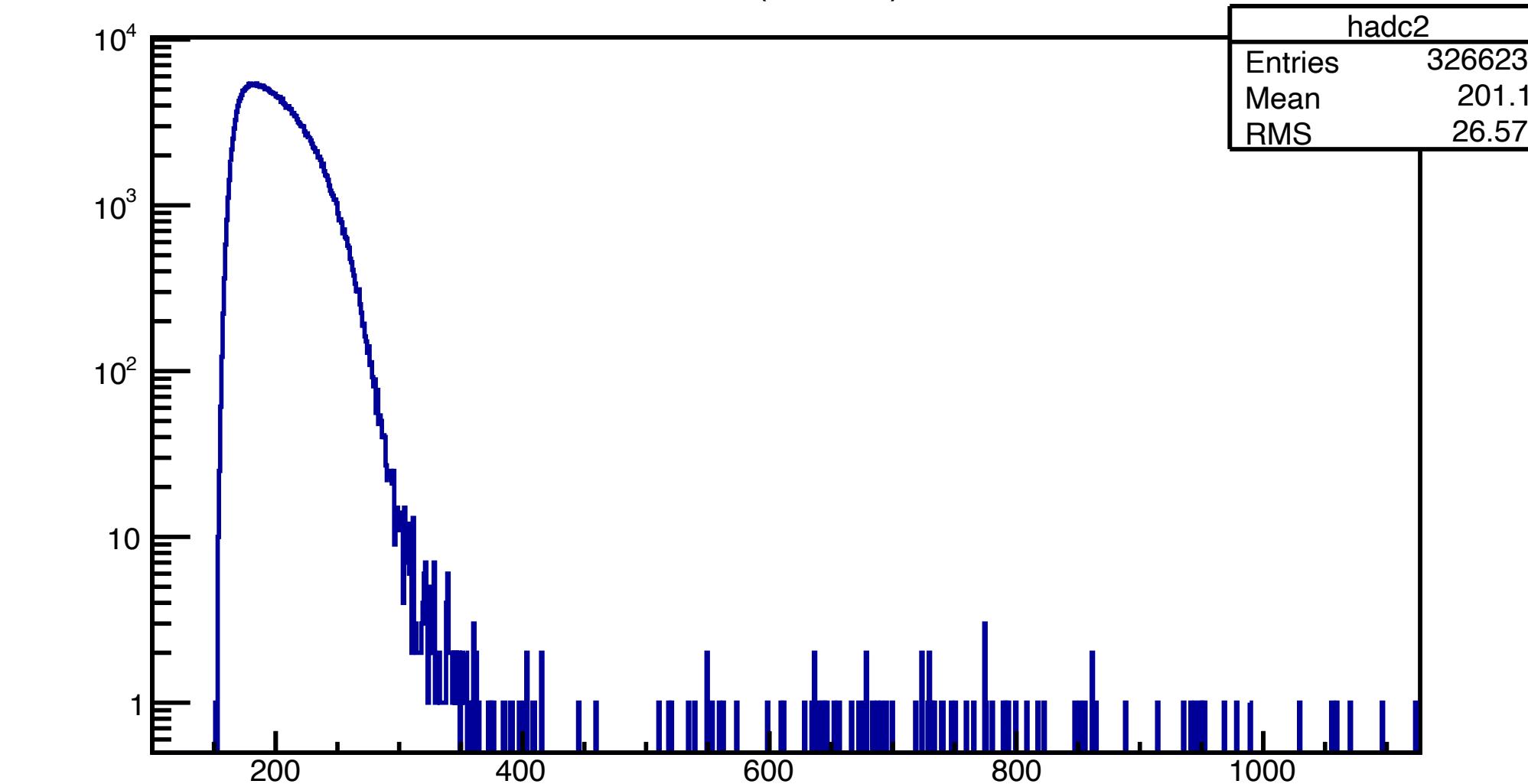
Attenuation Length

②

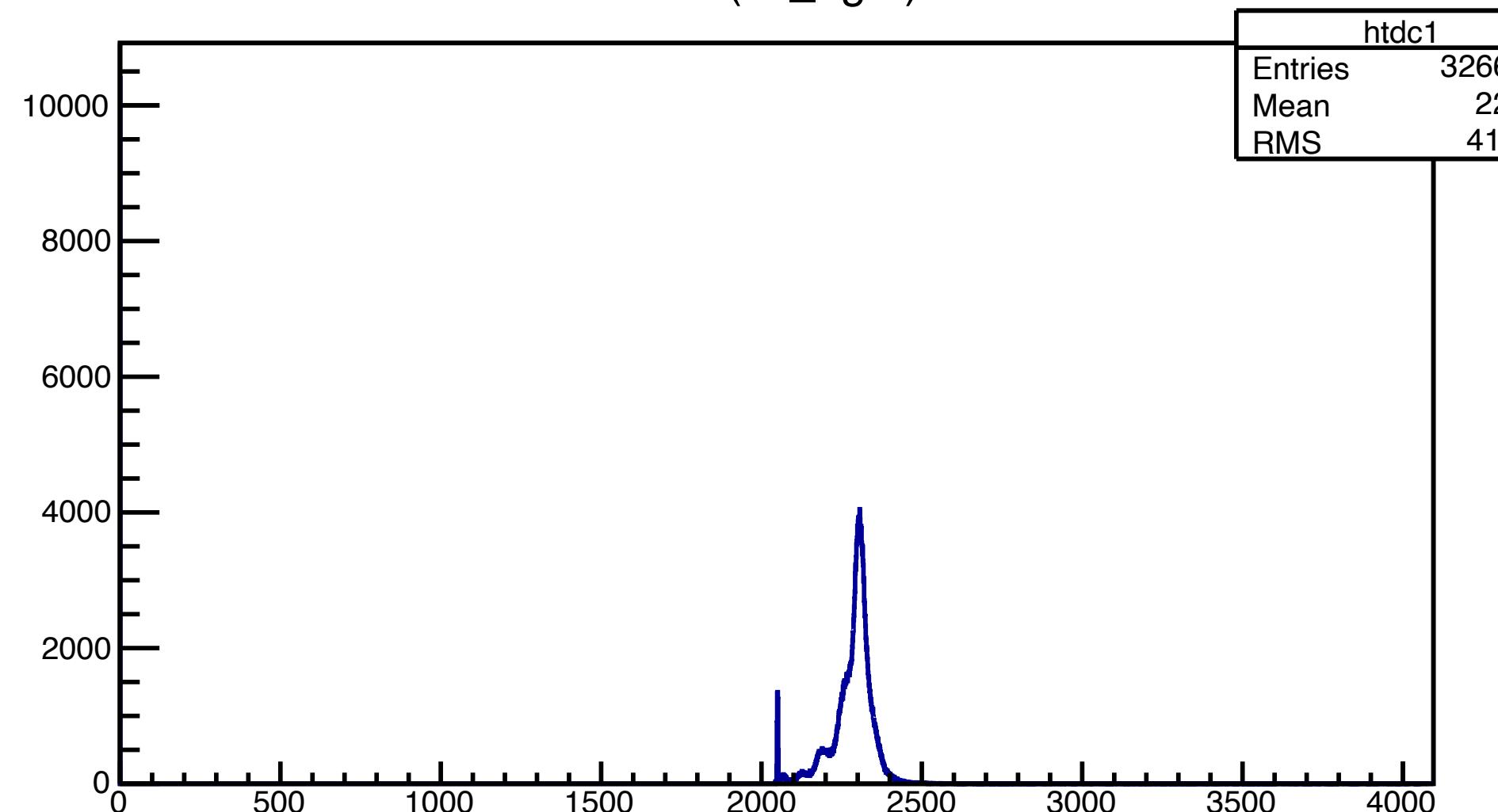
ADC(nc_right)



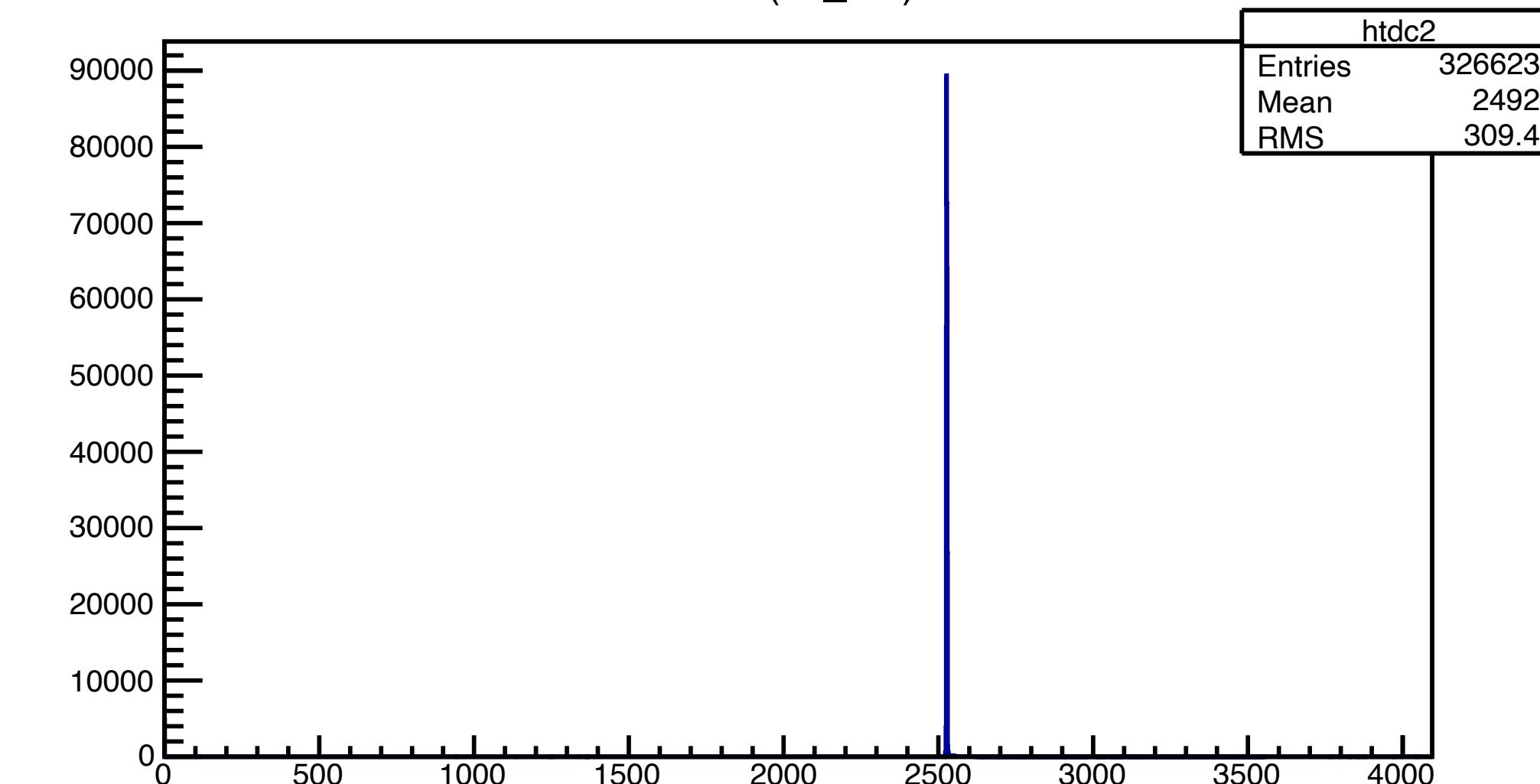
ADC(nc_left)



TDC(nc_right)



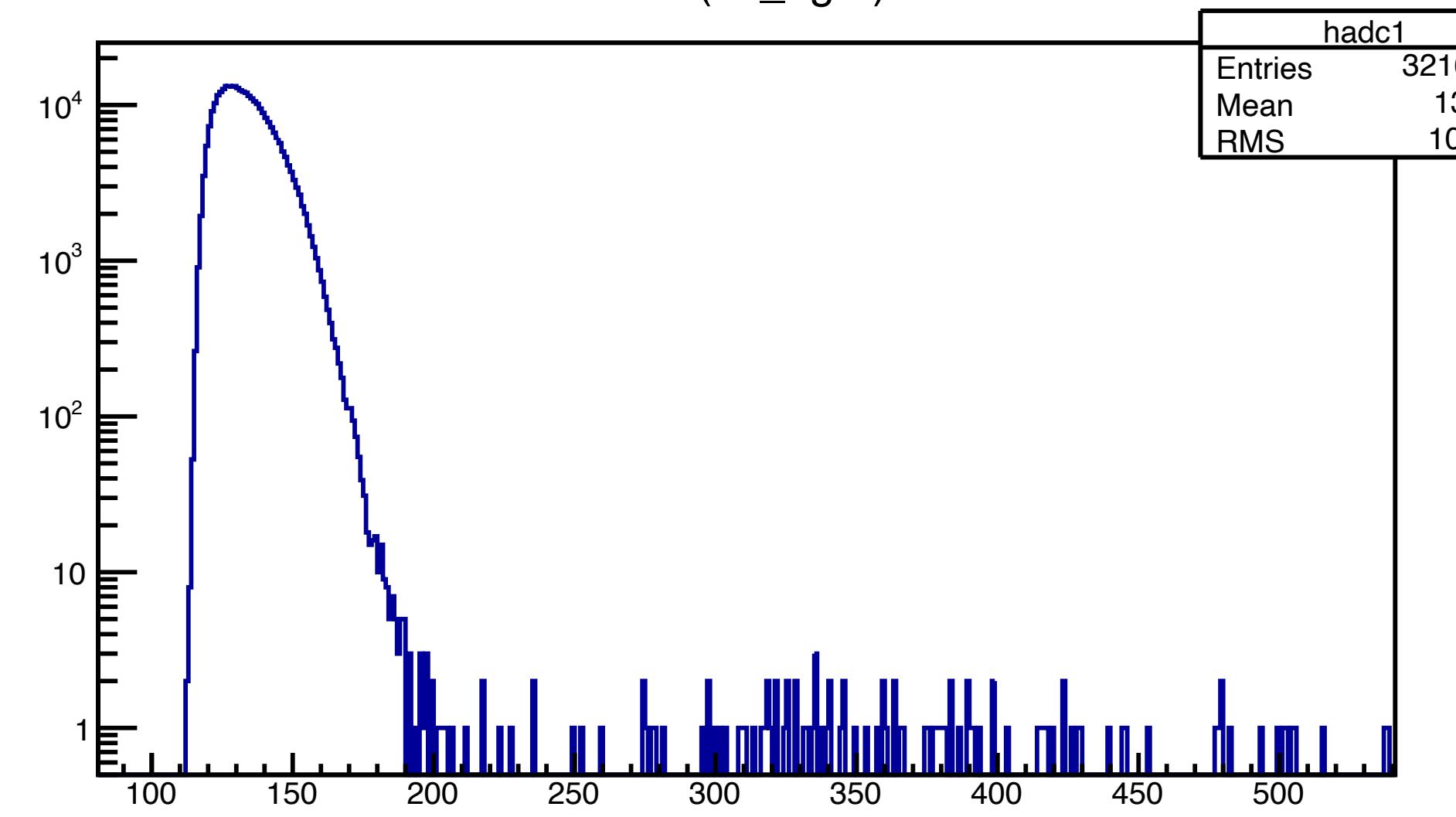
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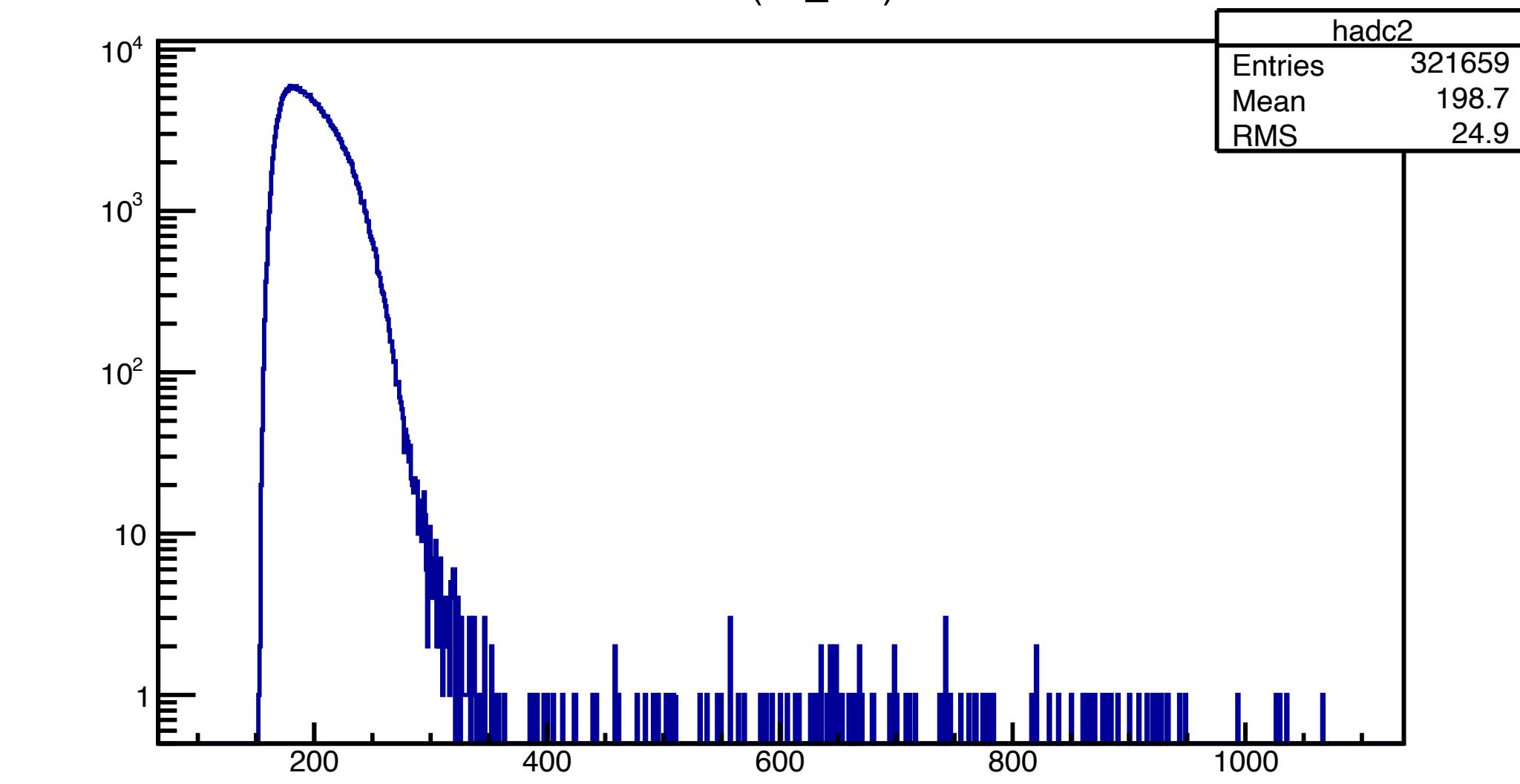
Attenuation Length

③

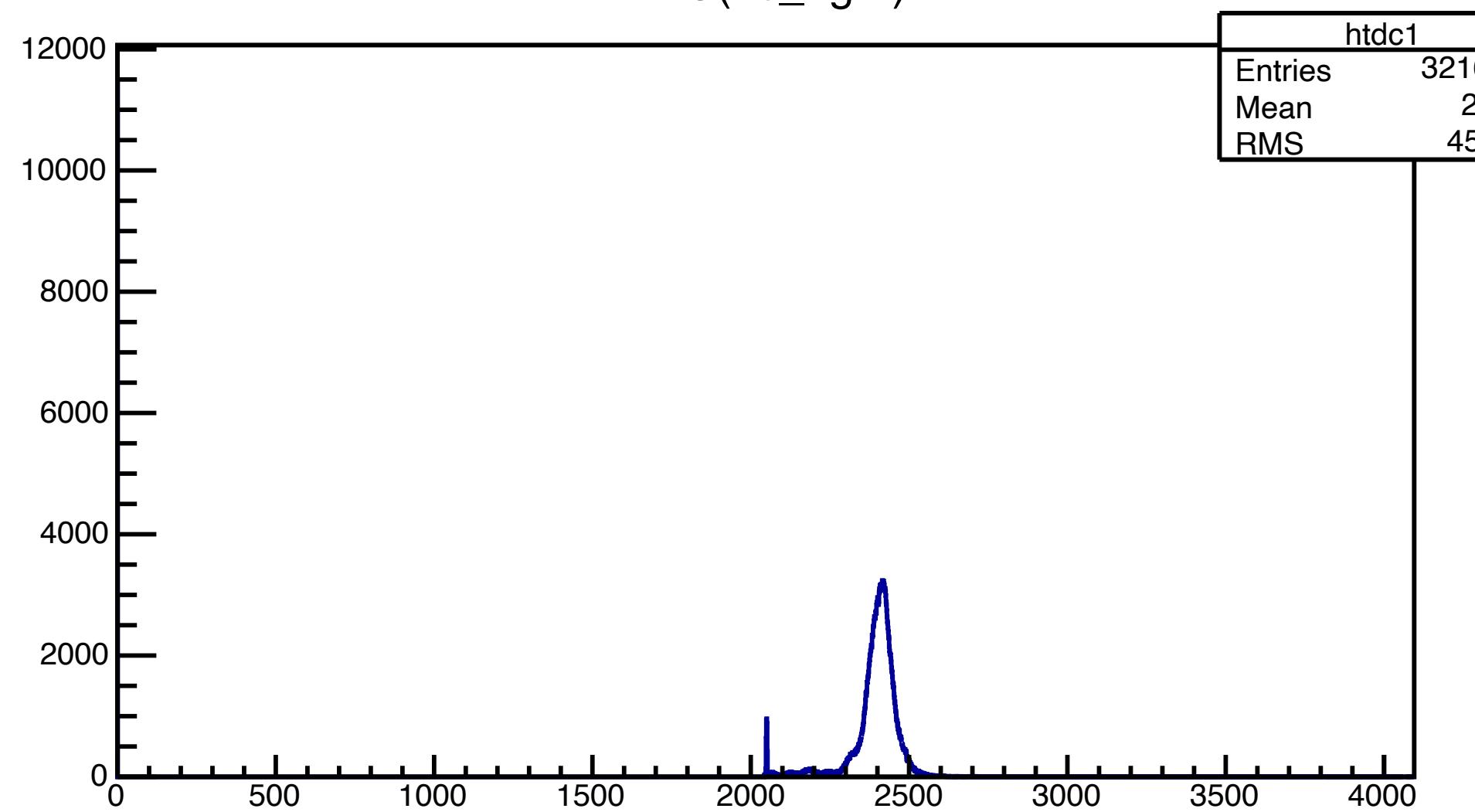
ADC(nc_right)



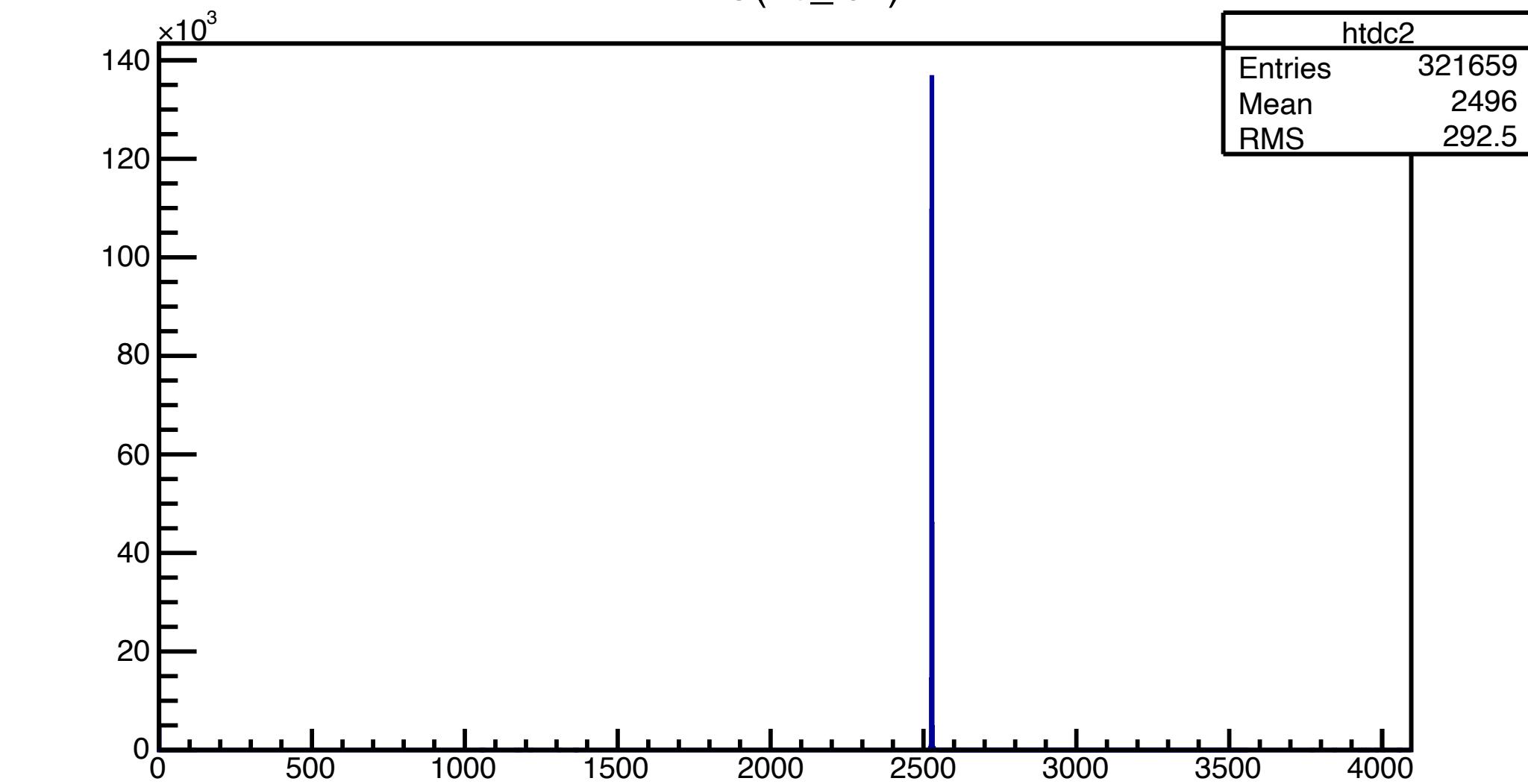
ADC(nc_left)



TDC(nc_right)



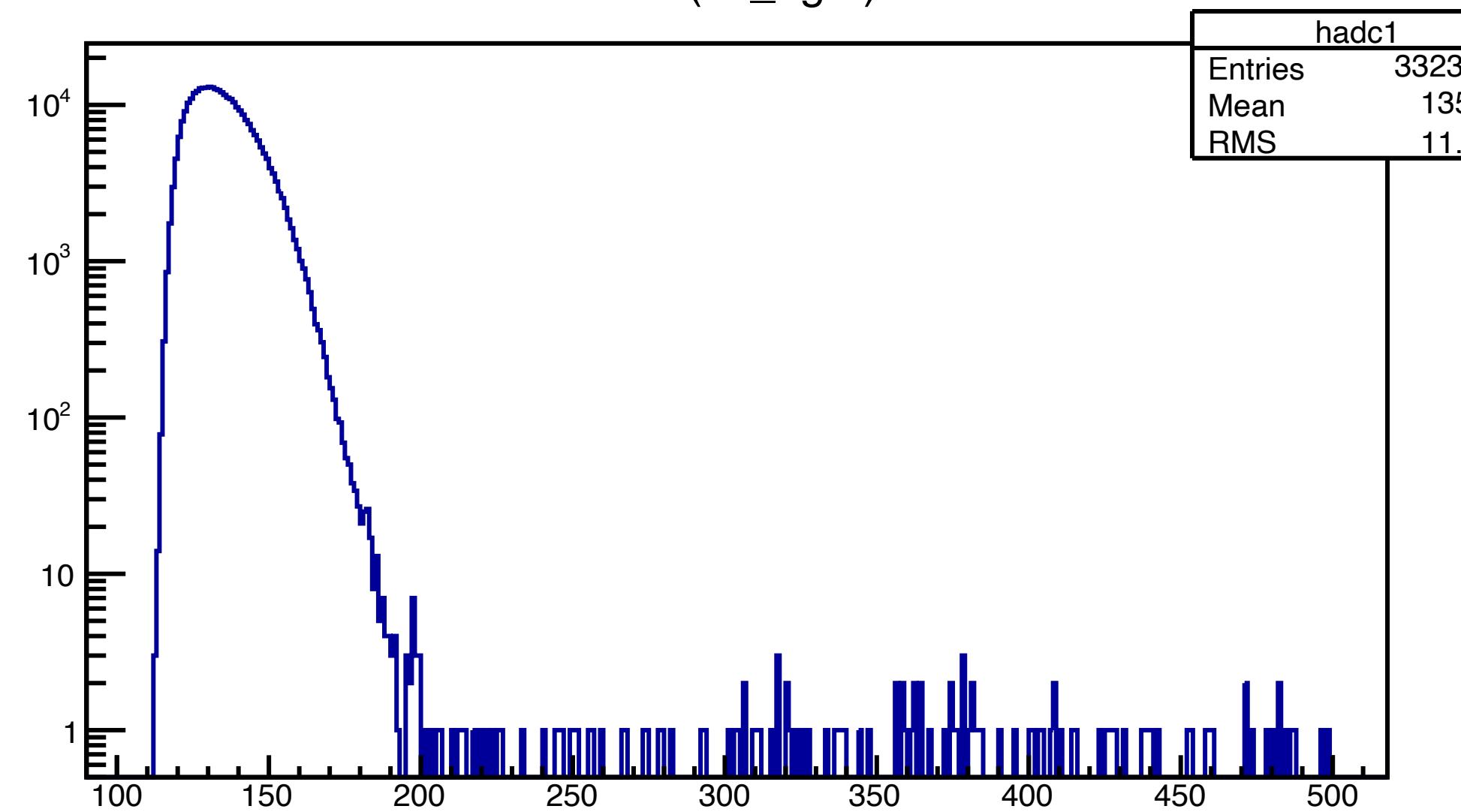
TDC(nc_left)



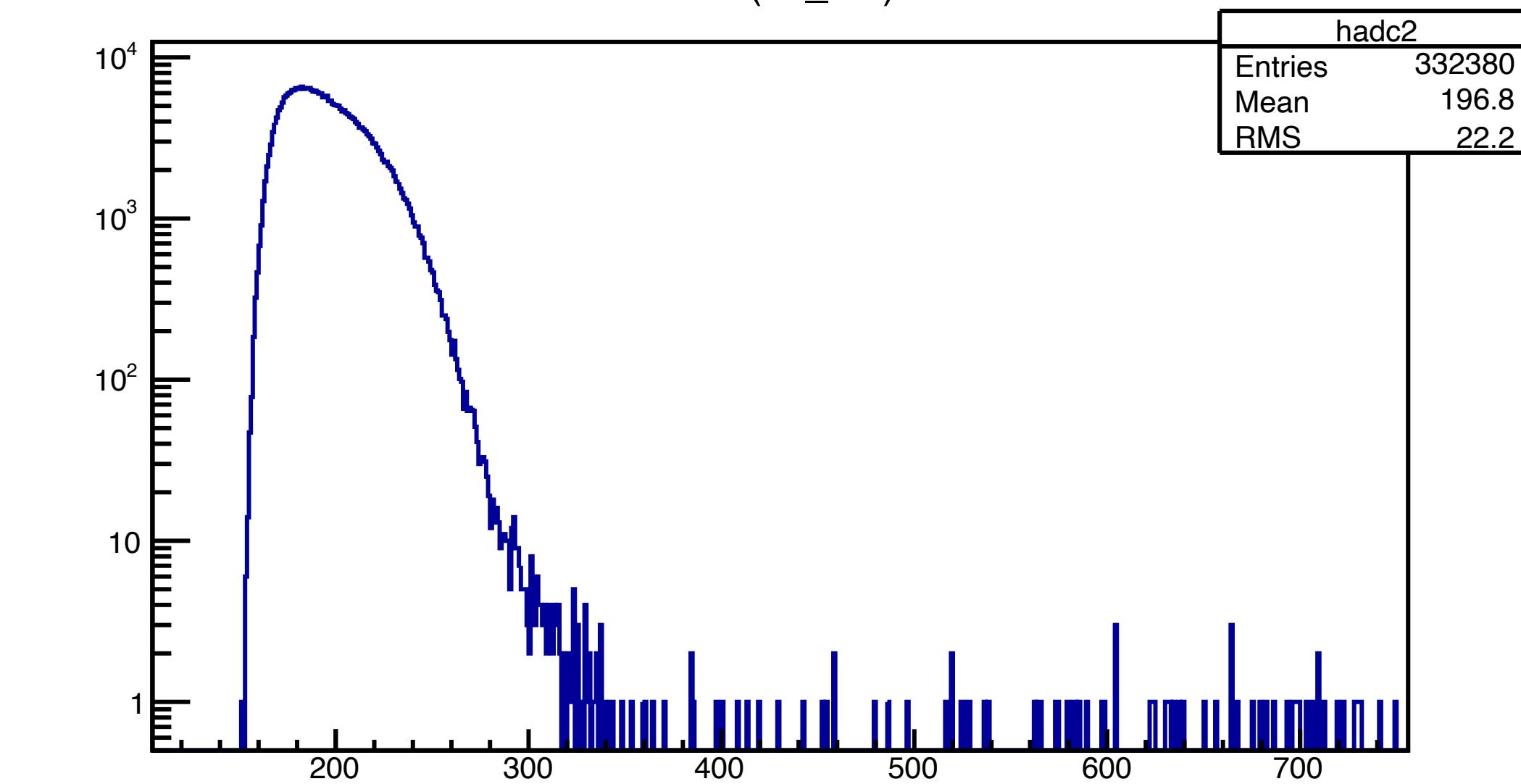
Attenuation Length

④

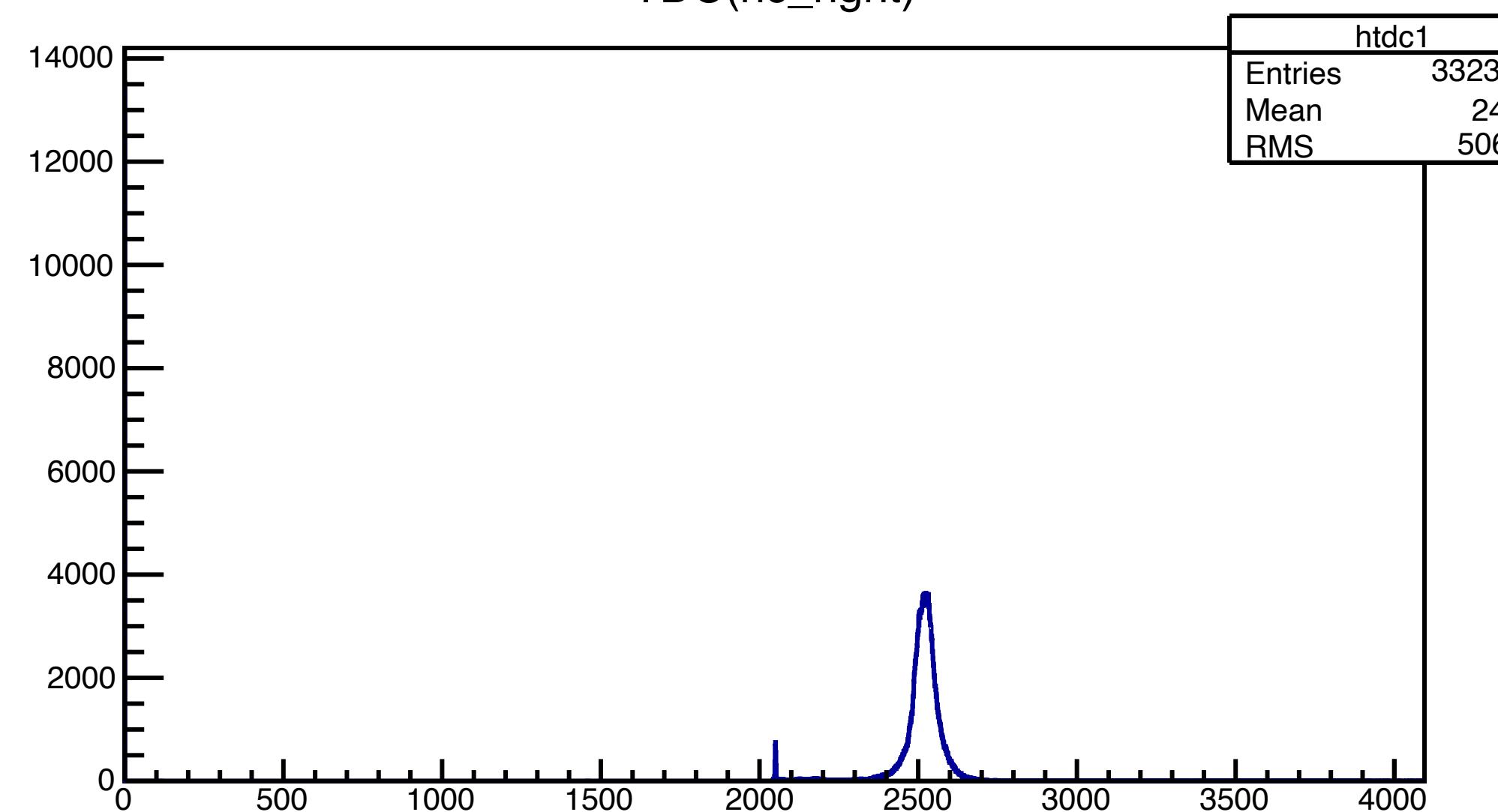
ADC(nc_right)



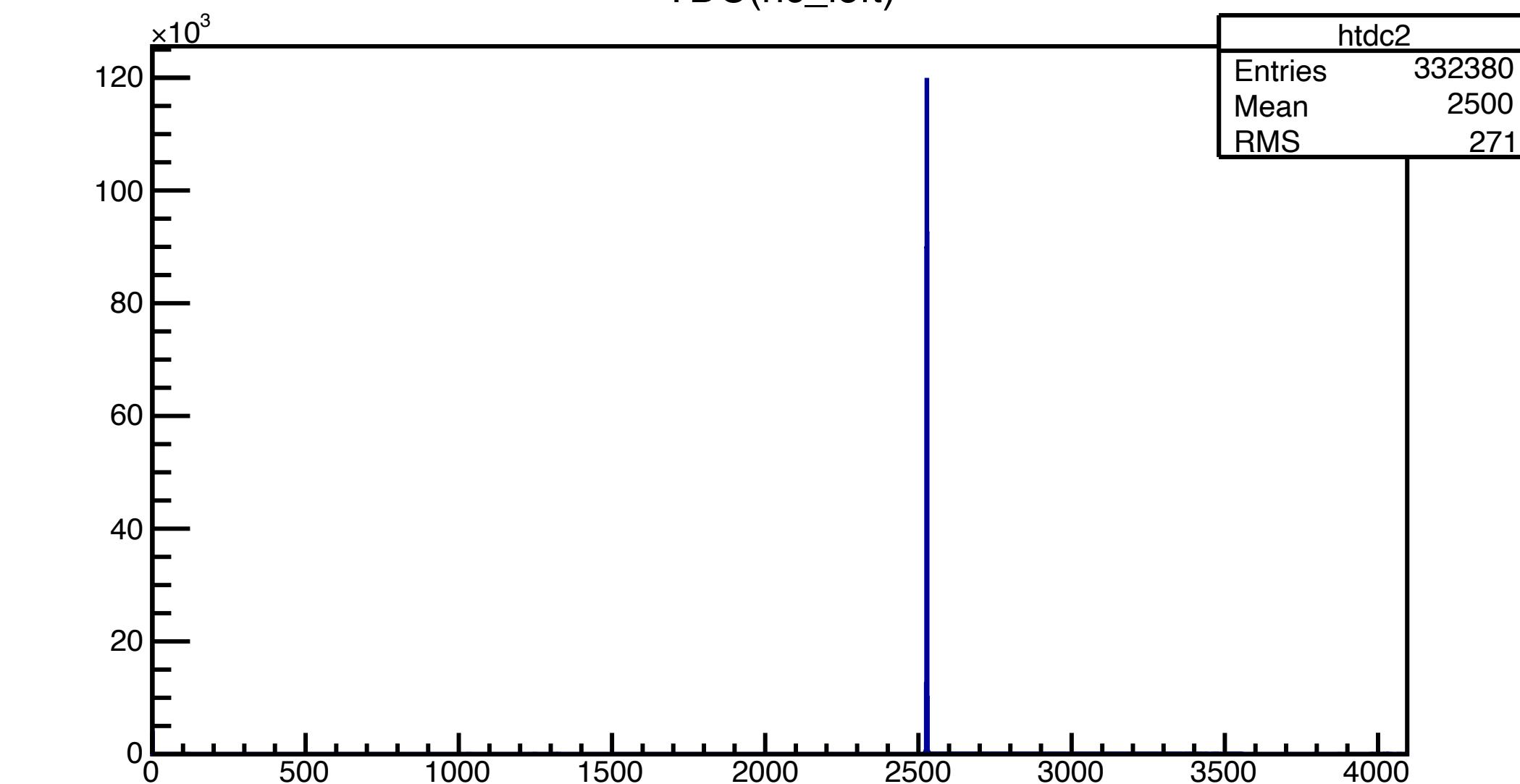
ADC(nc_left)



TDC(nc_right)



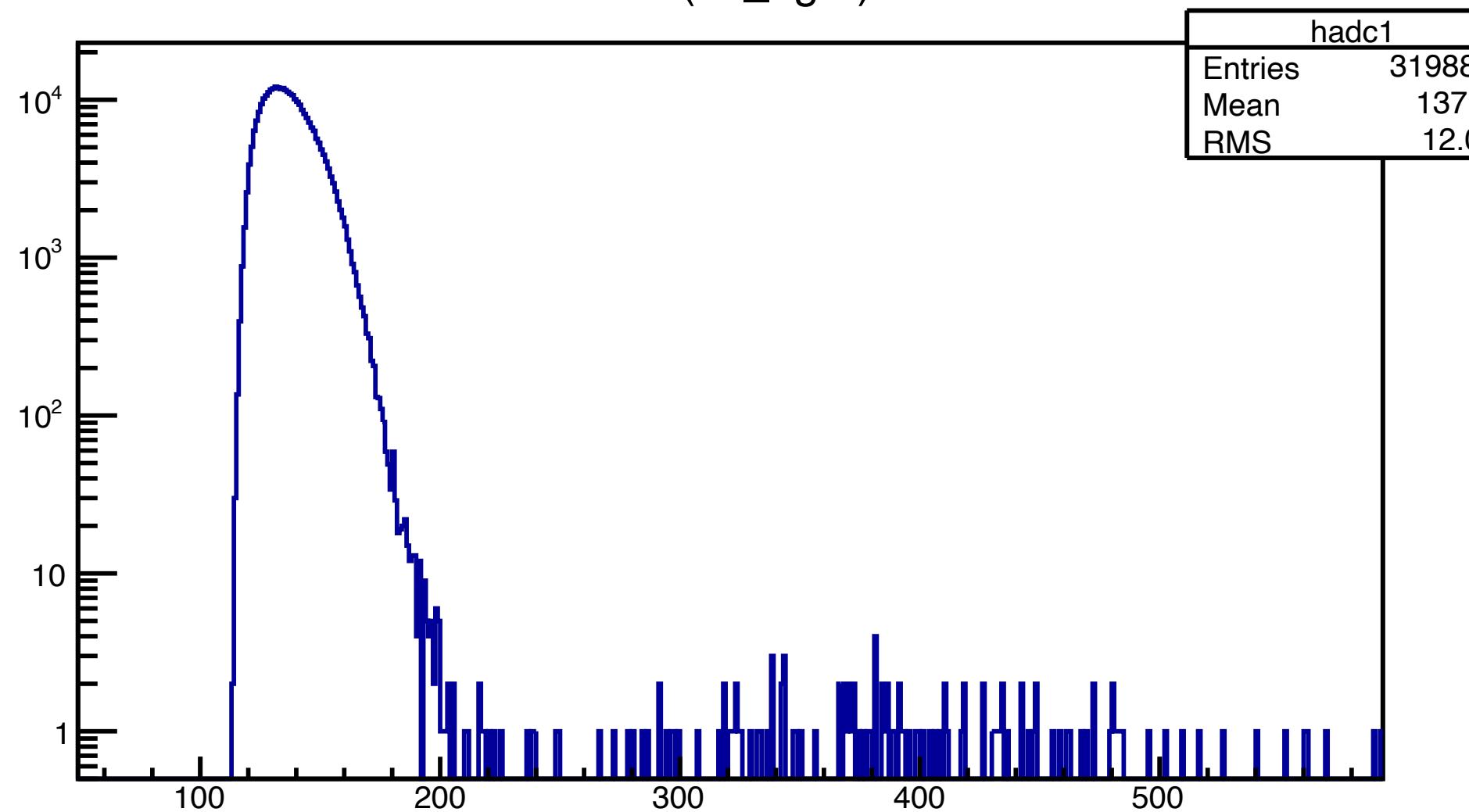
TDC(nc_left)



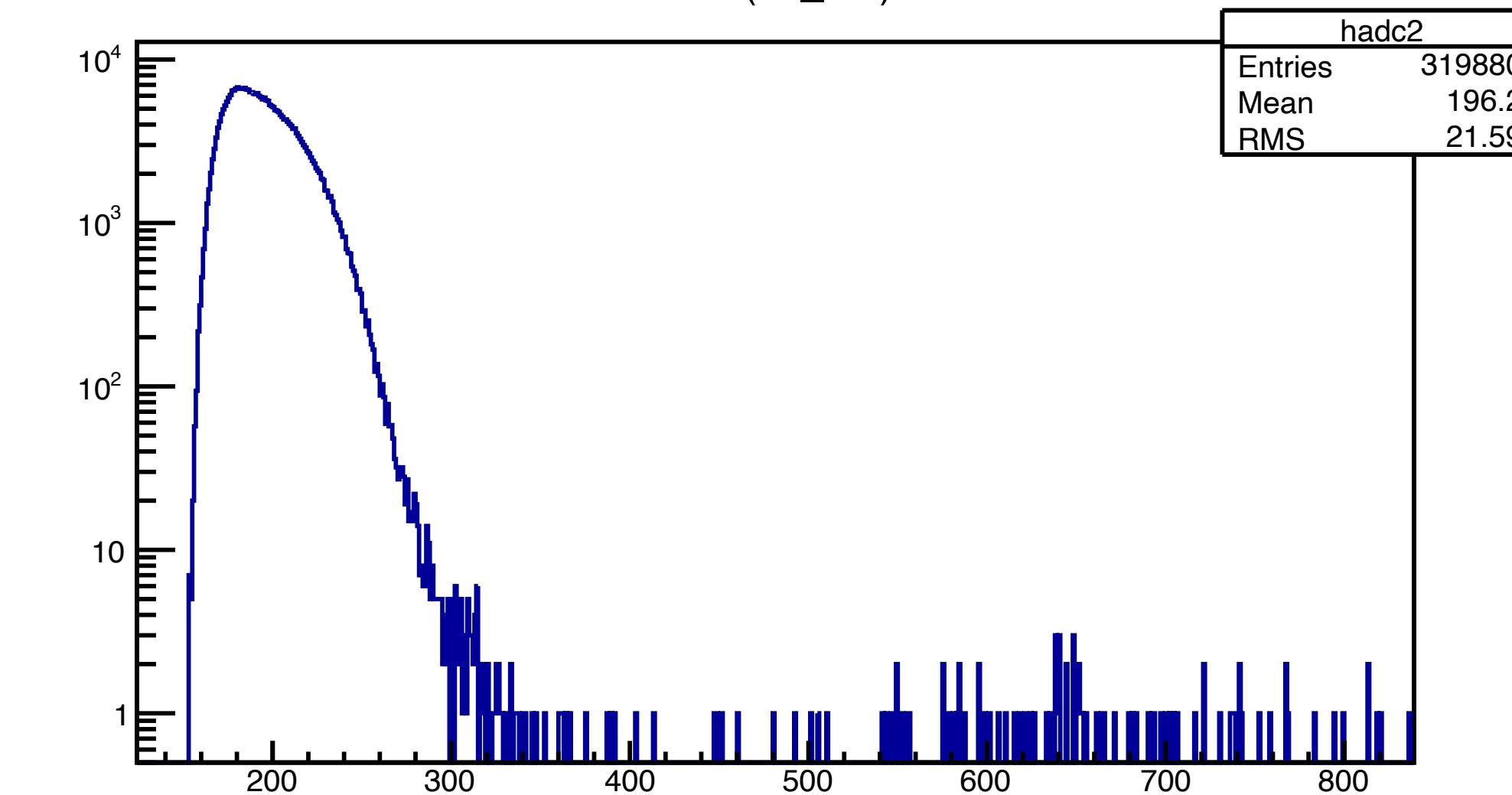
Attenuation Length

⑤

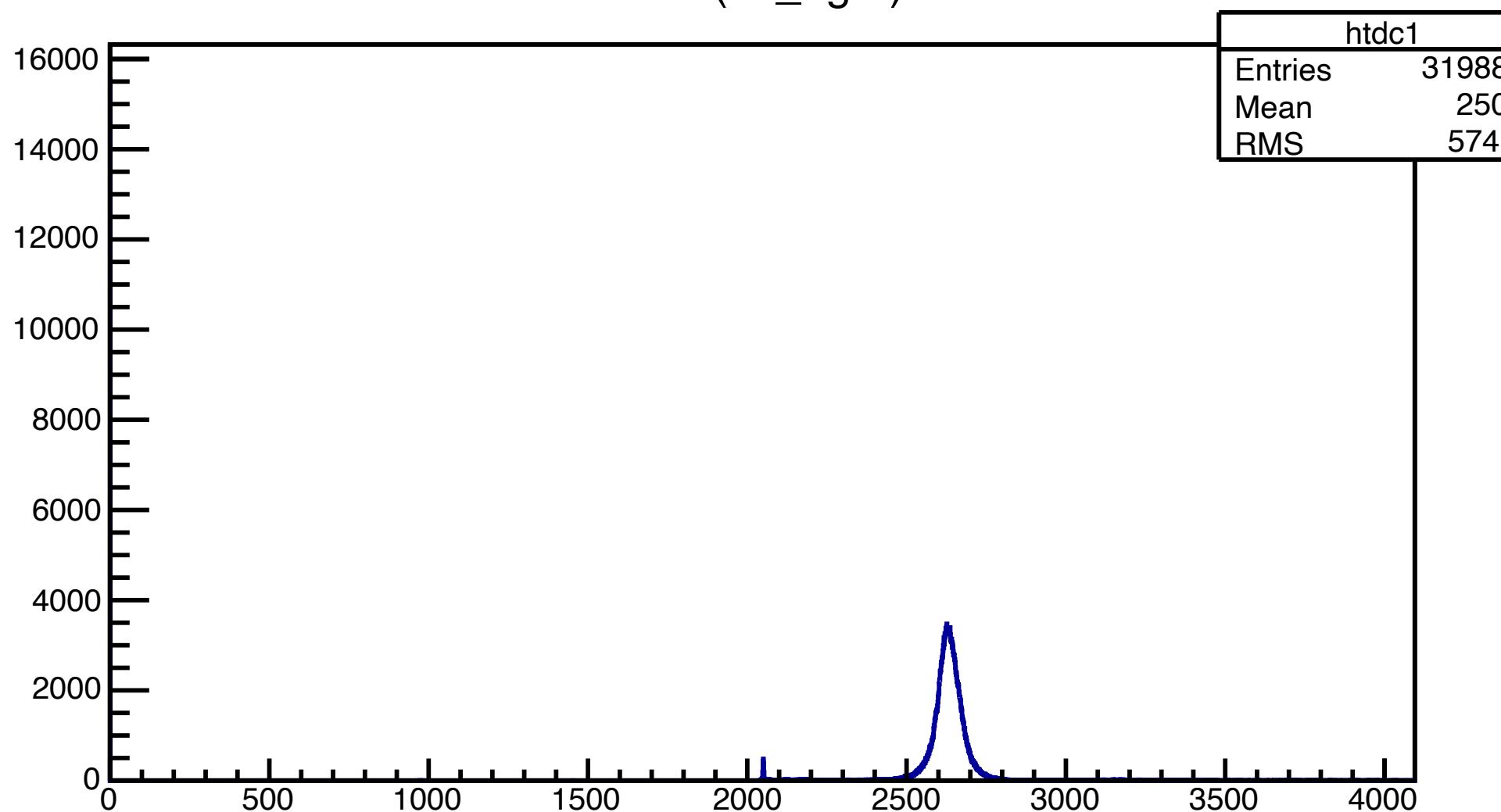
ADC(nc_right)



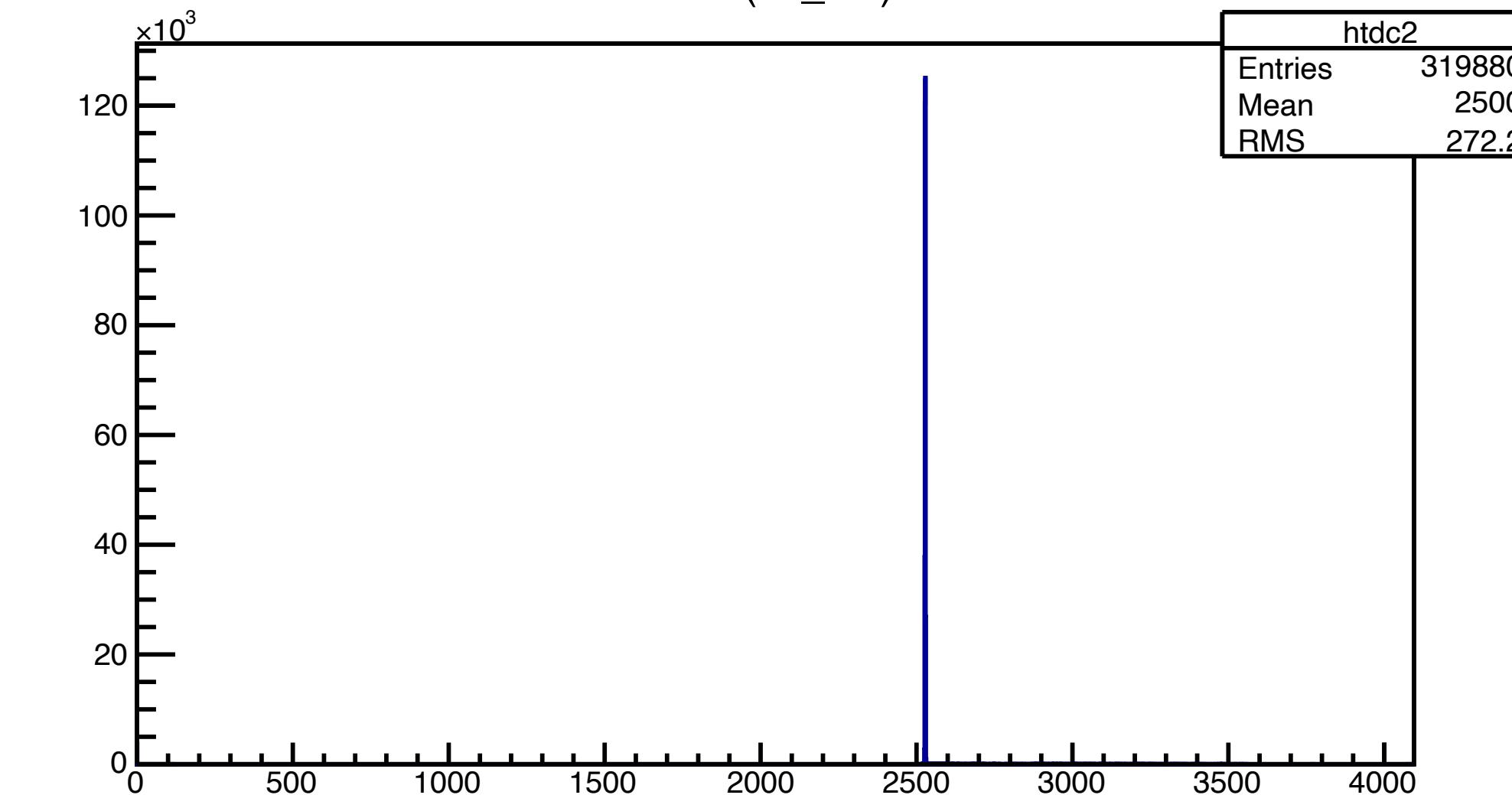
ADC(nc_left)



TDC(nc_right)

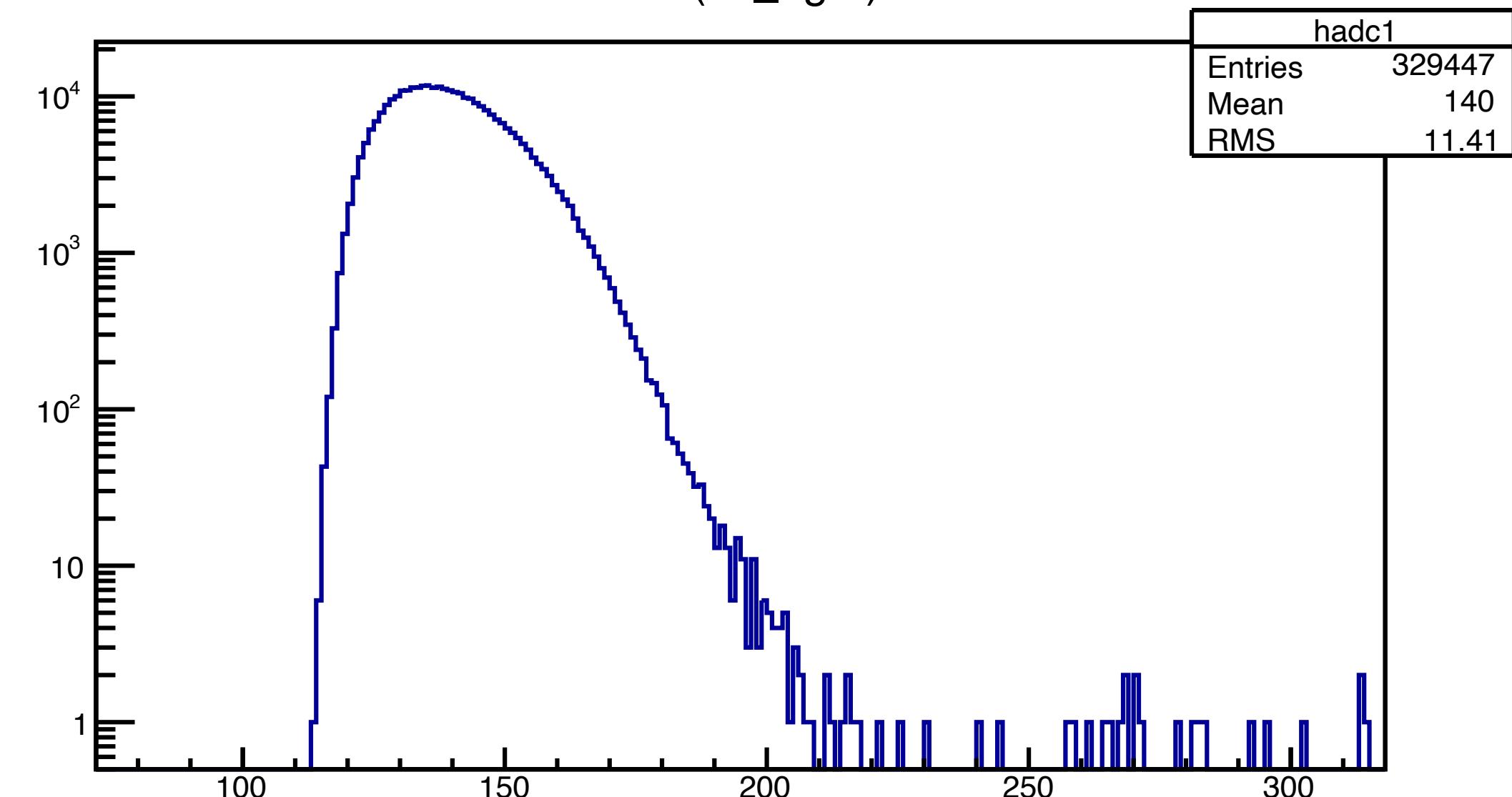


TDC(nc_left)

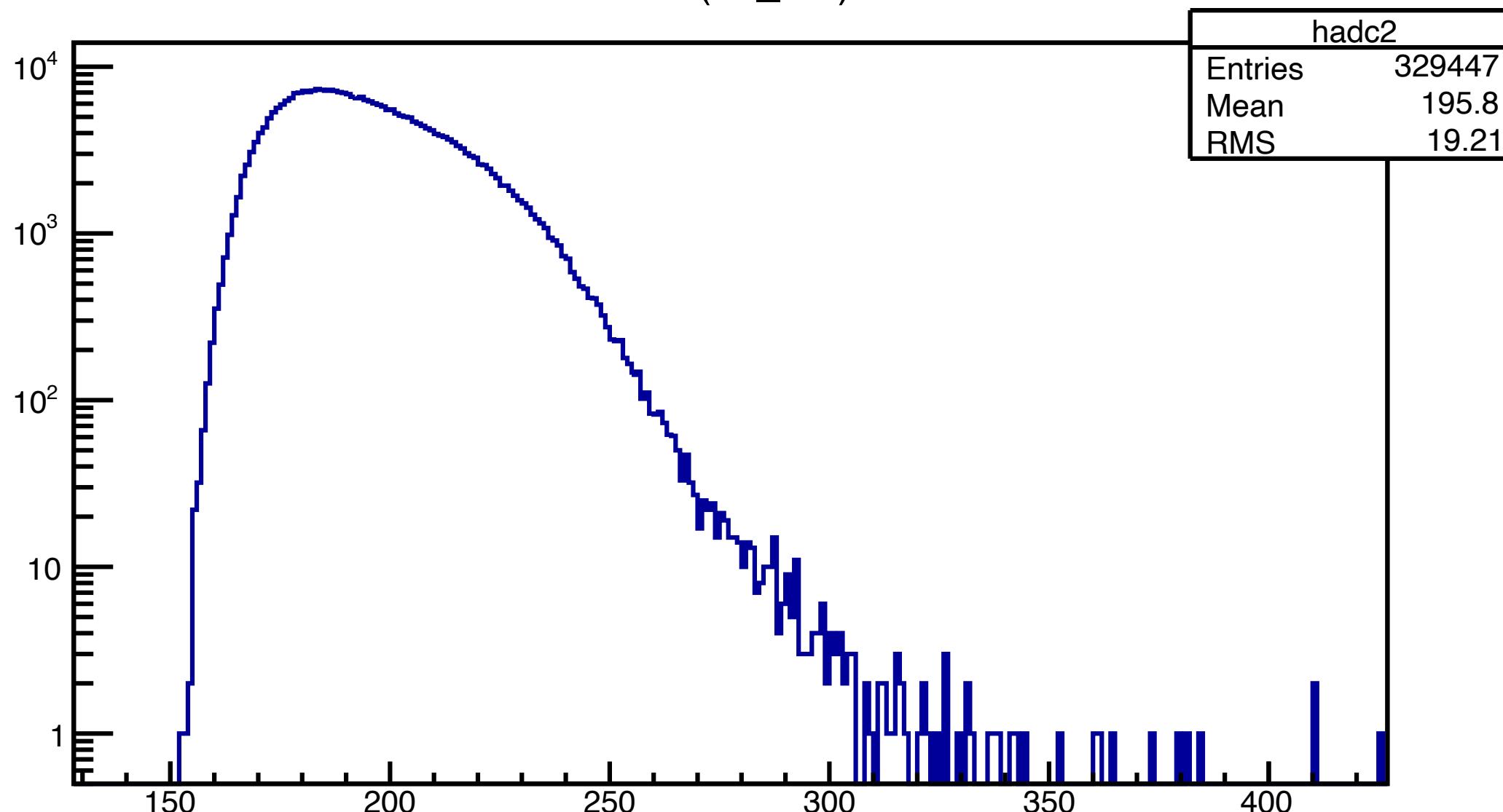


⑥

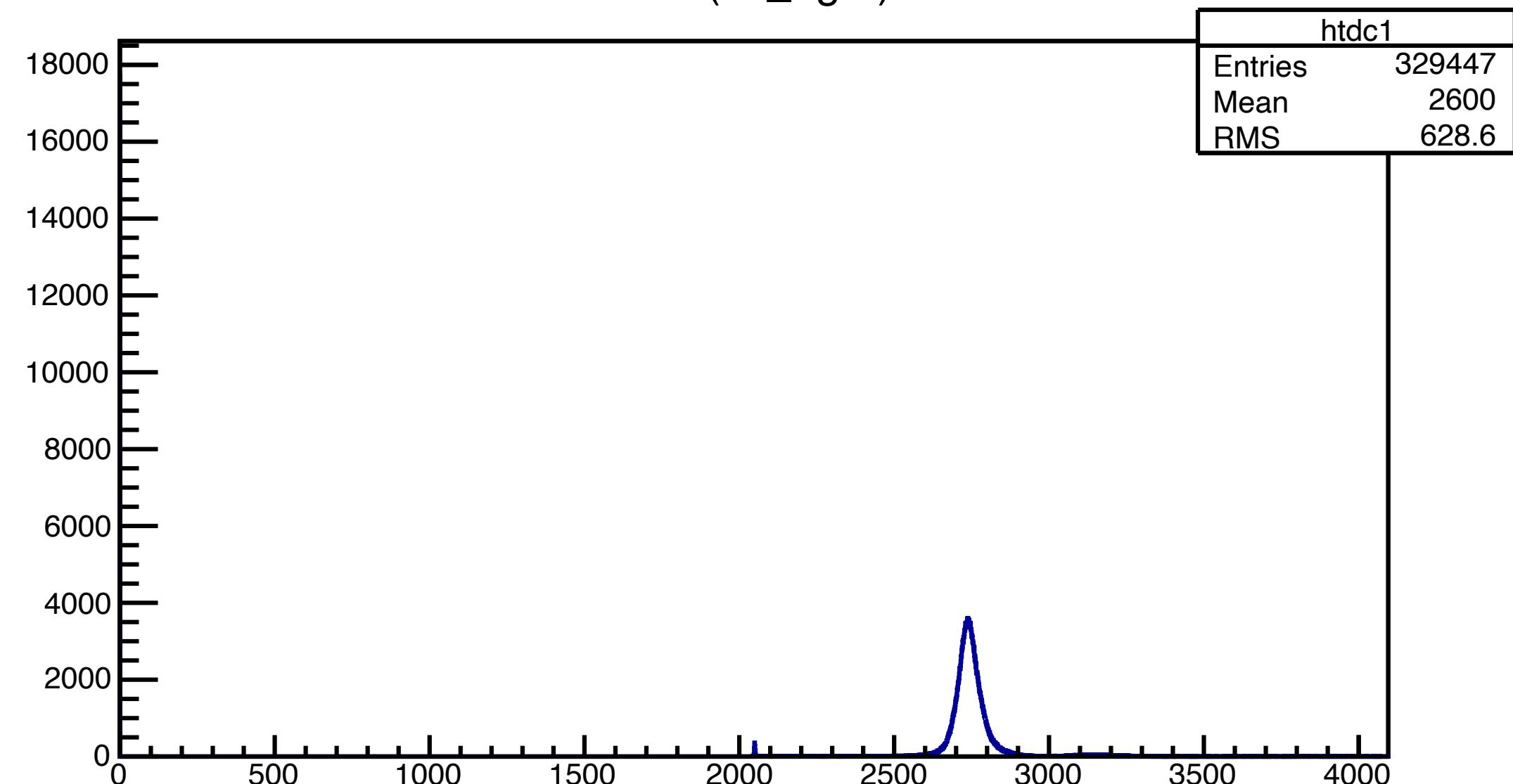
ADC(nc_right)



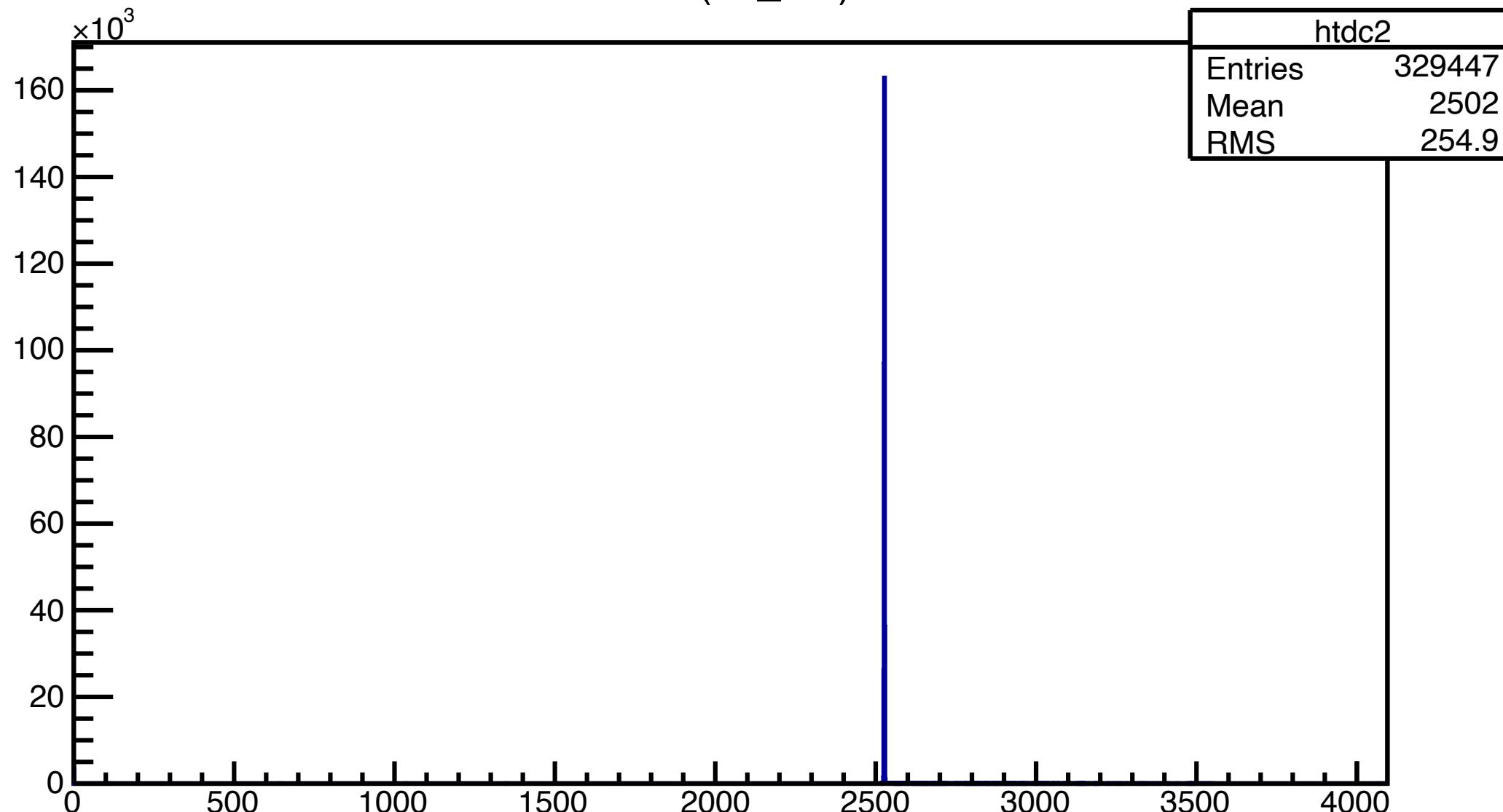
ADC(nc_left)



TDC(nc_right)

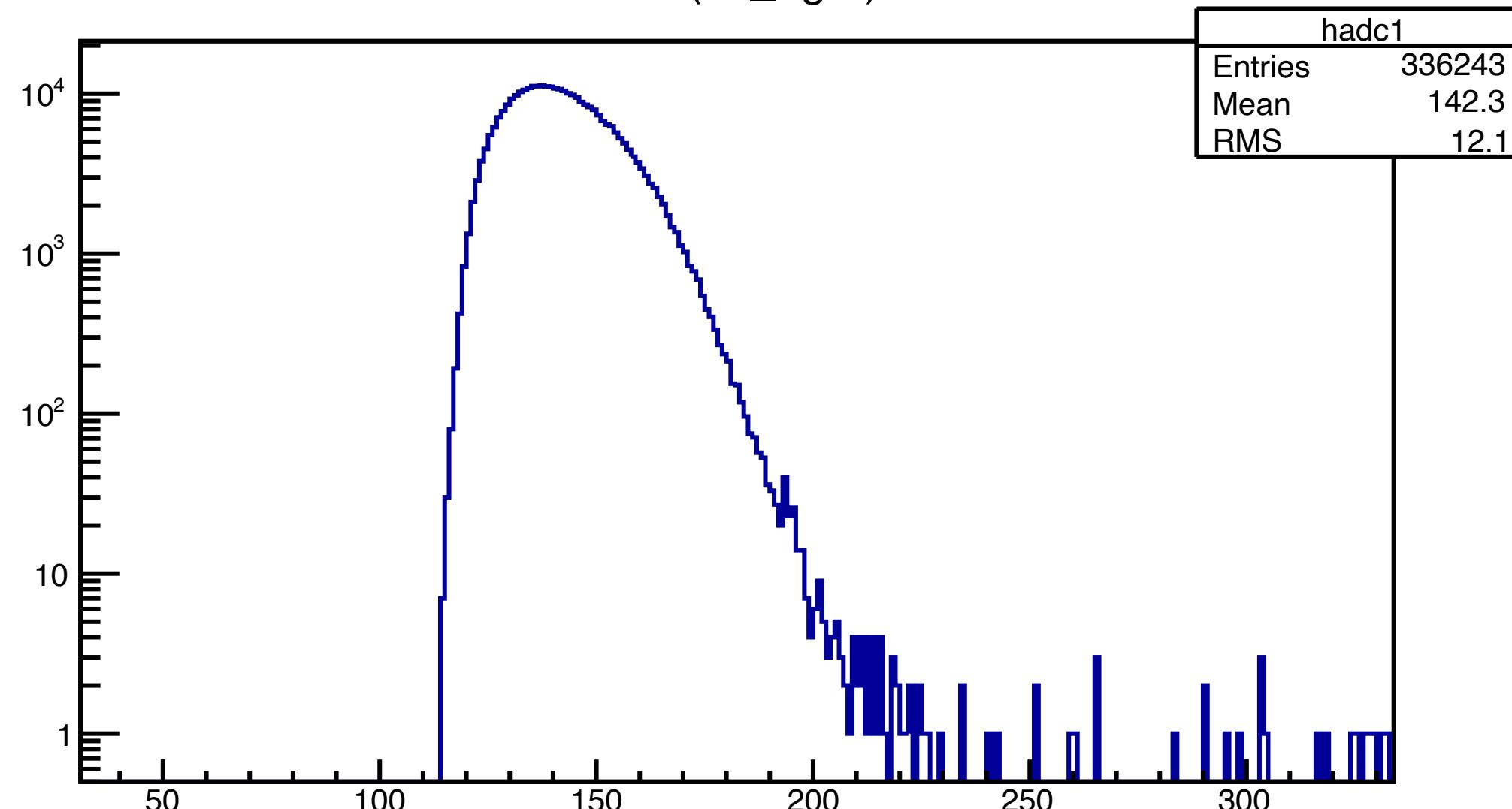


TDC(nc_left)

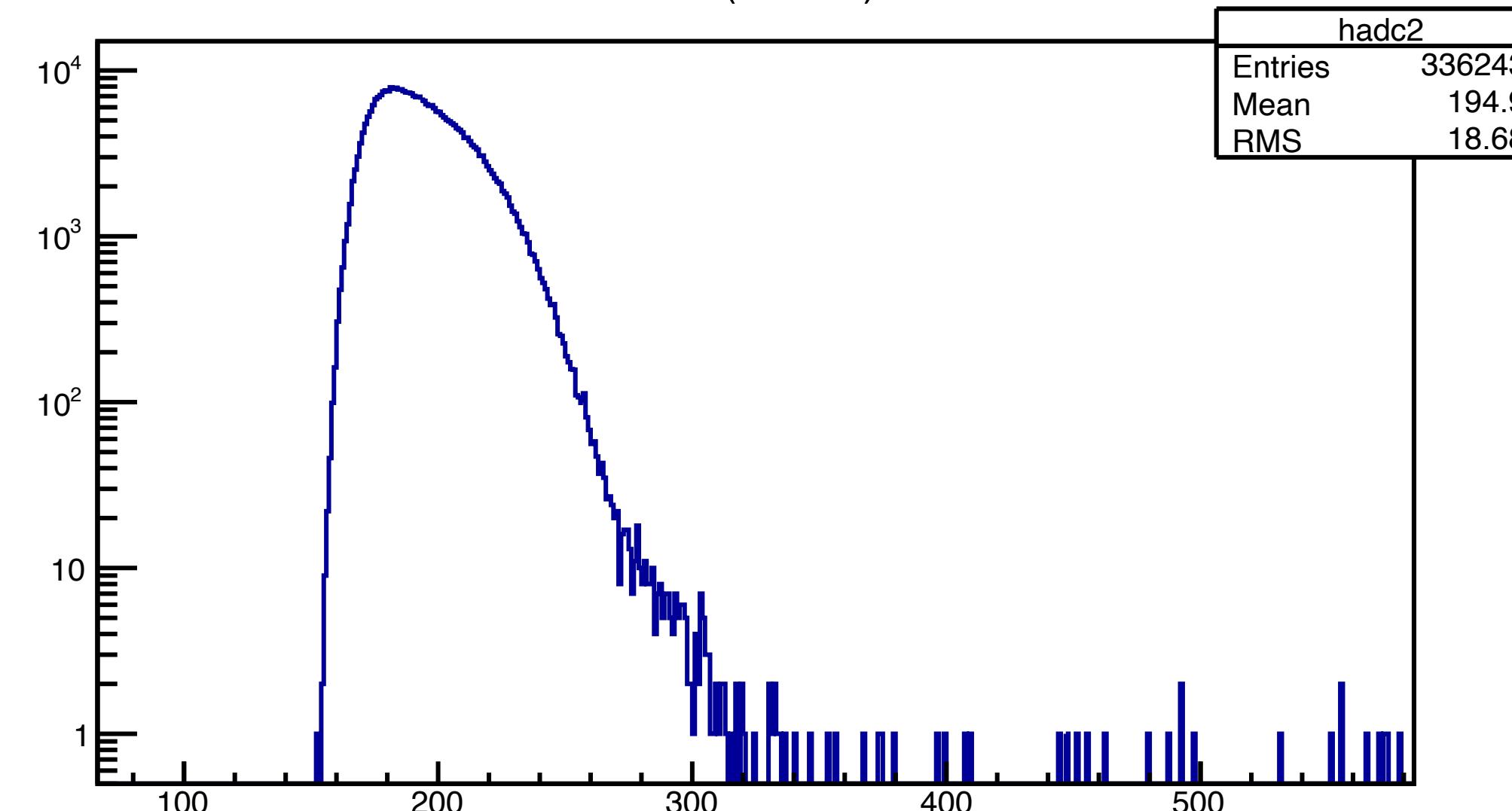


7

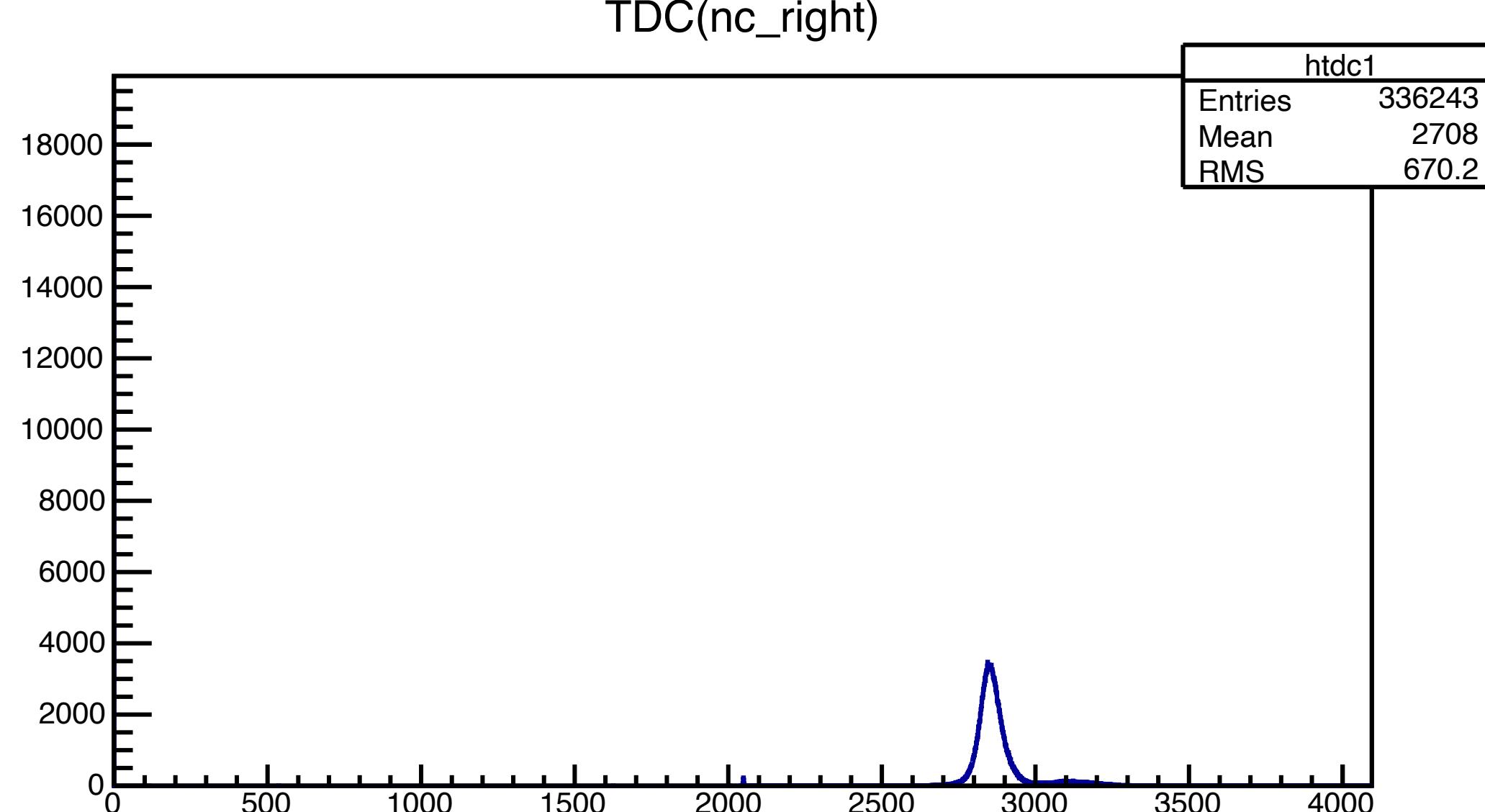
ADC(nc_right)



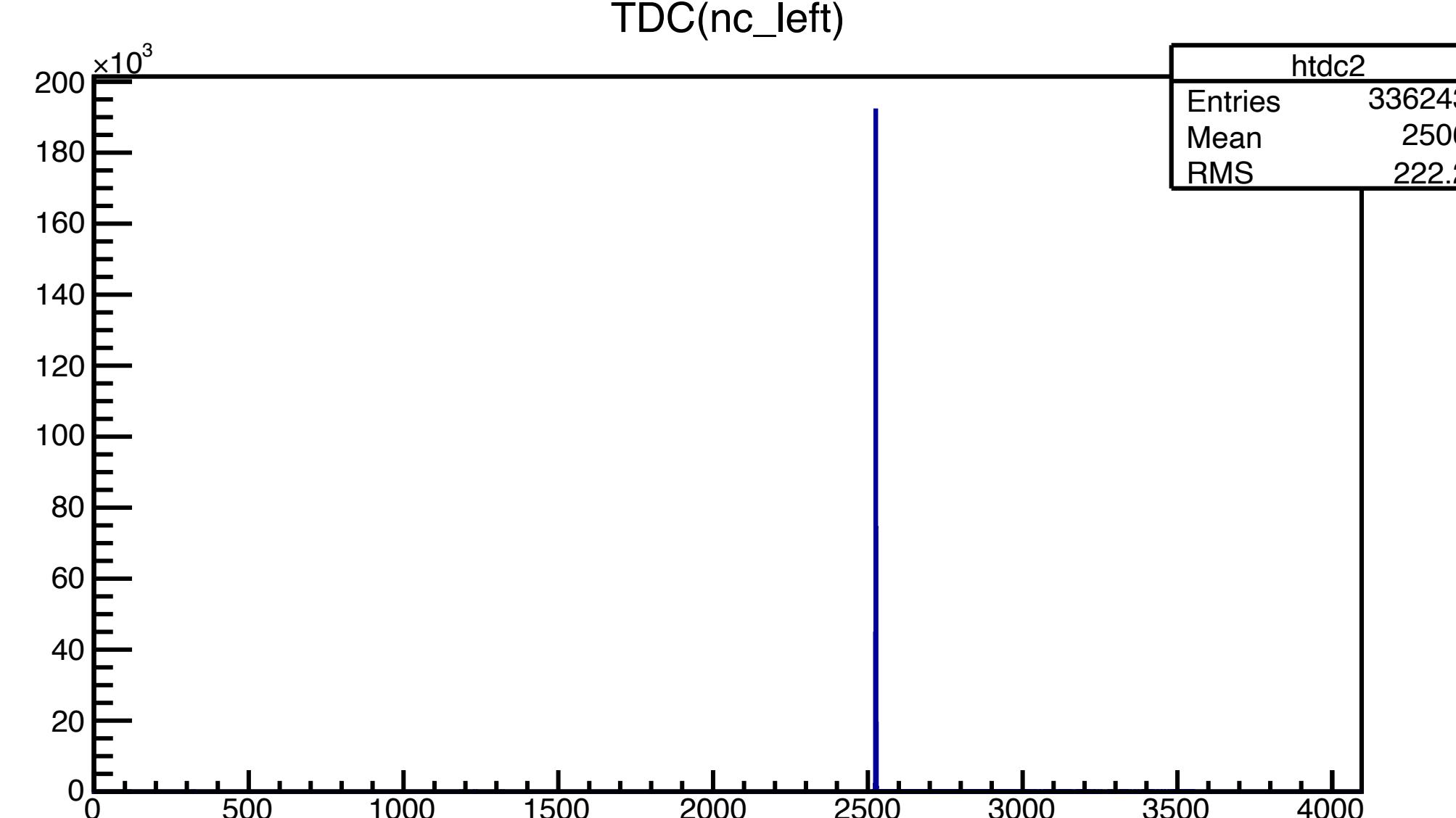
ADC(nc_left)



TDC(nc_right)

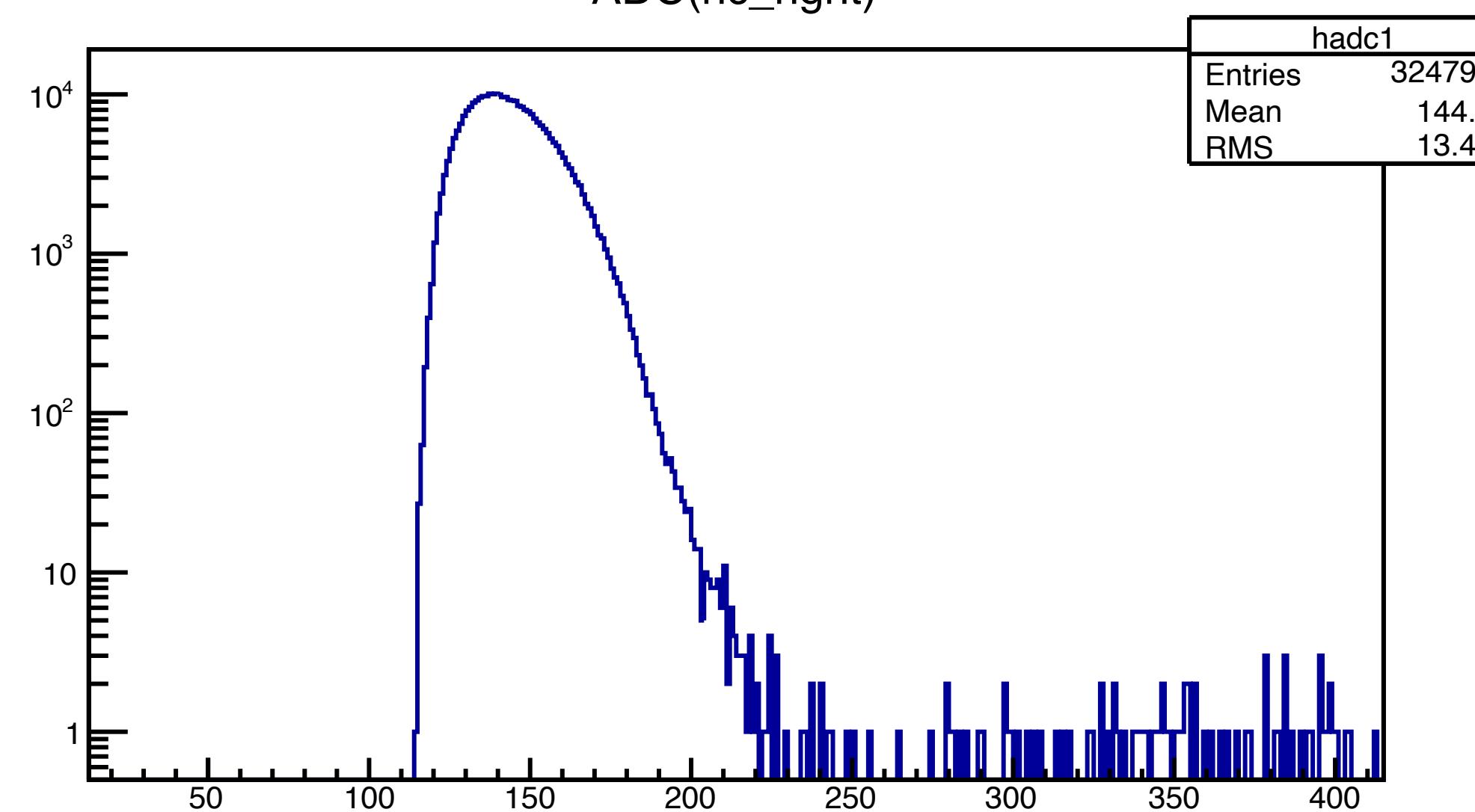


TDC(nc_left)

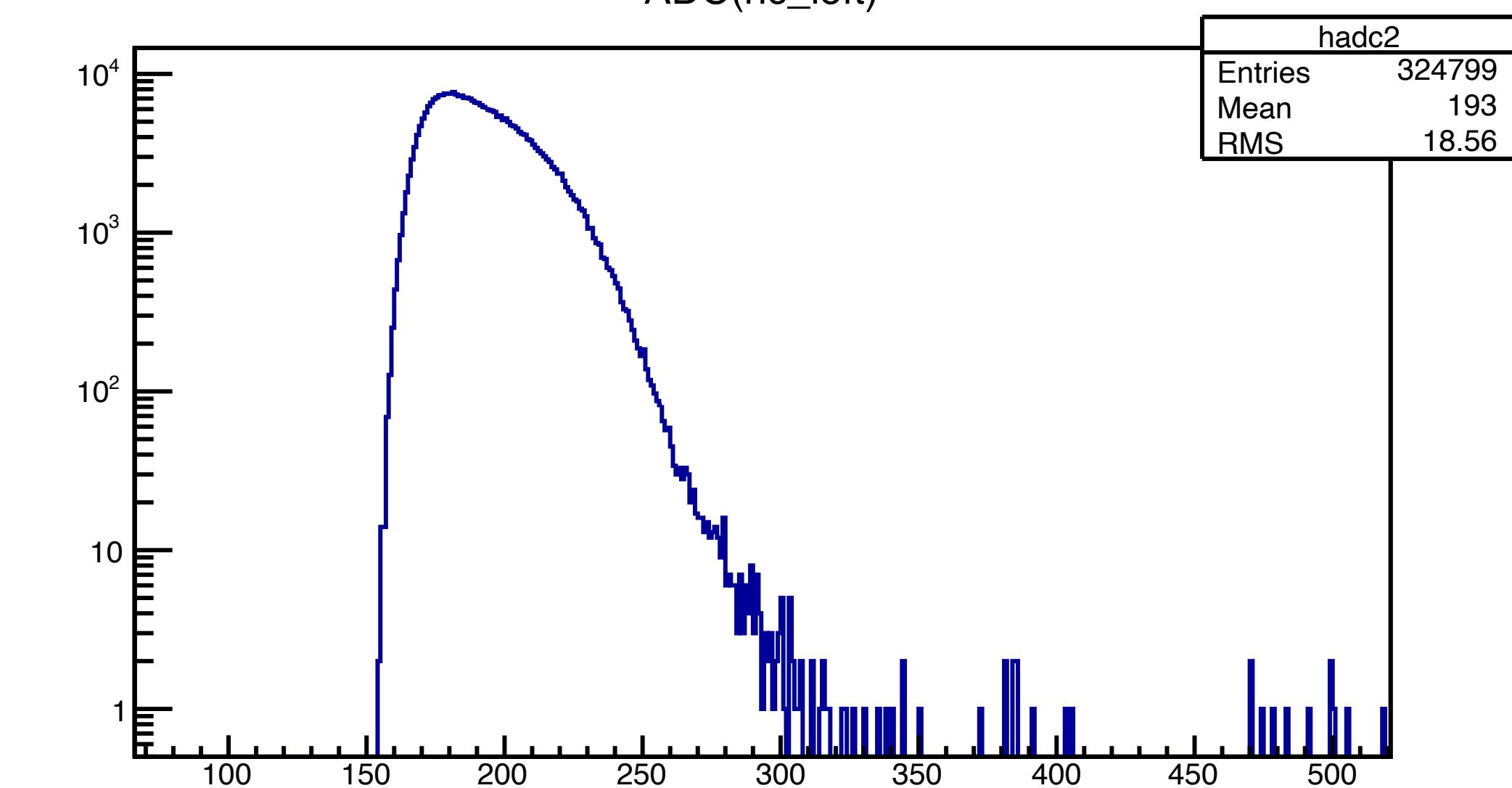


⑧

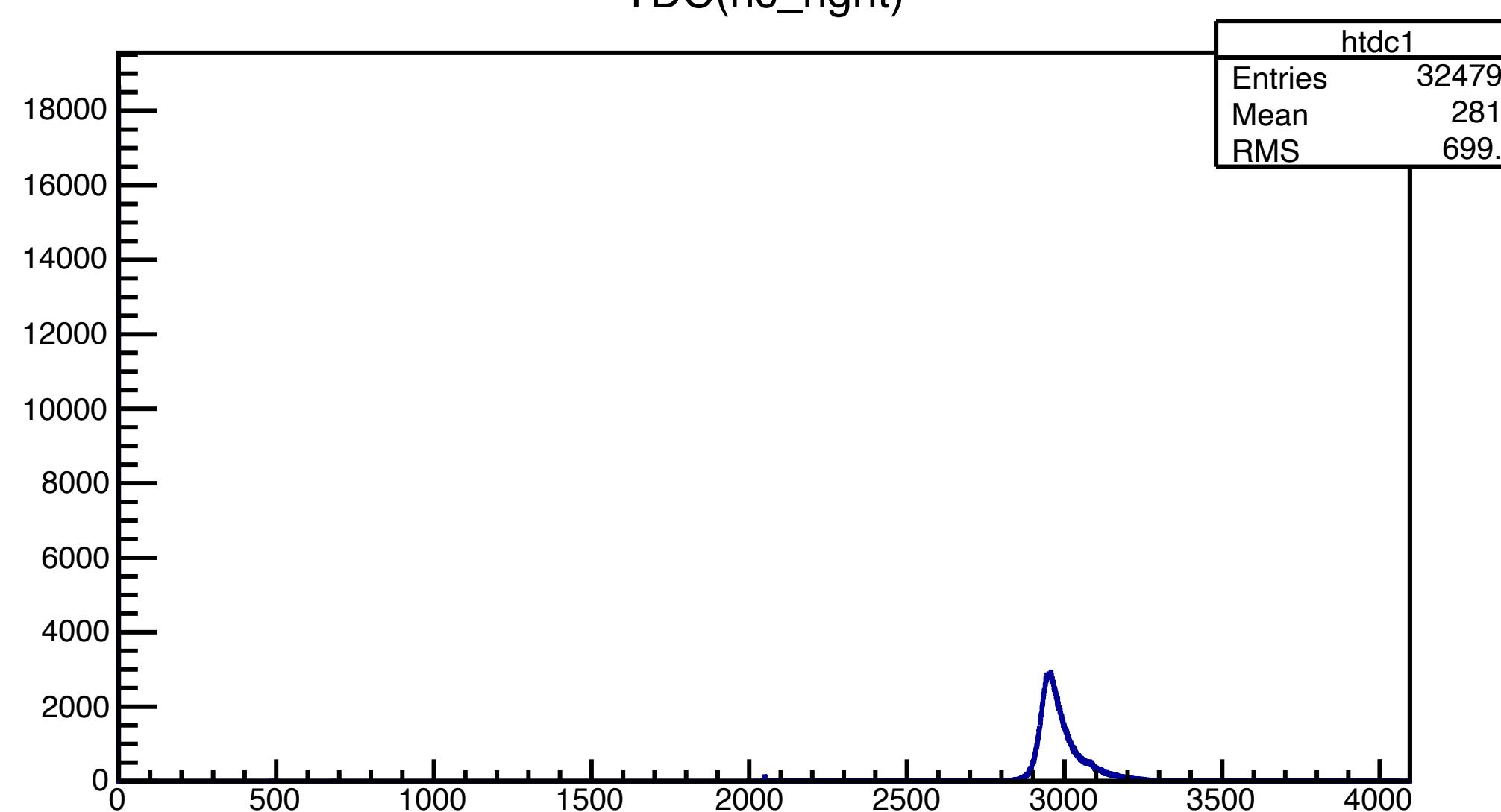
ADC(nc_right)



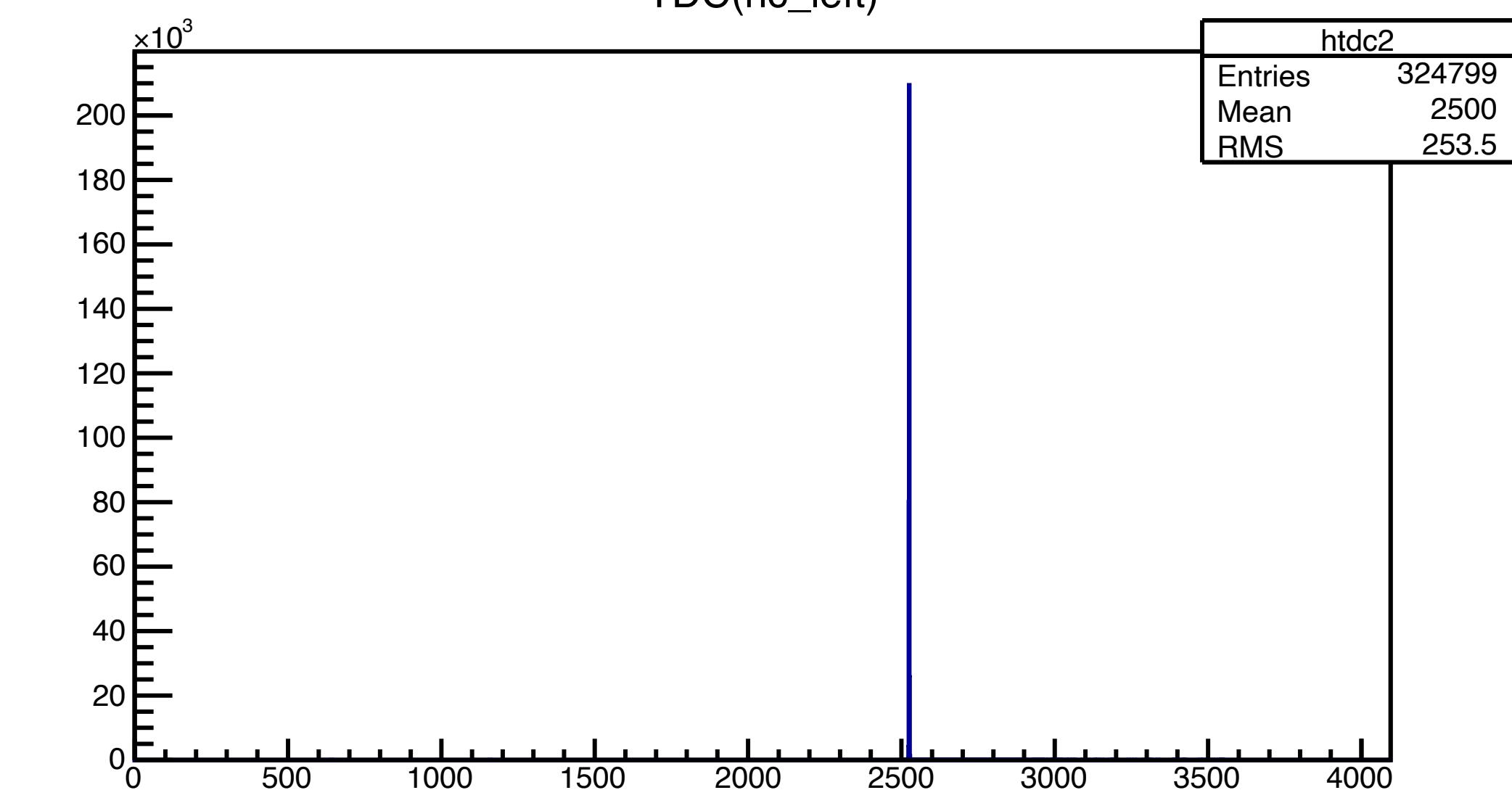
ADC(nc_left)



TDC(nc_right)

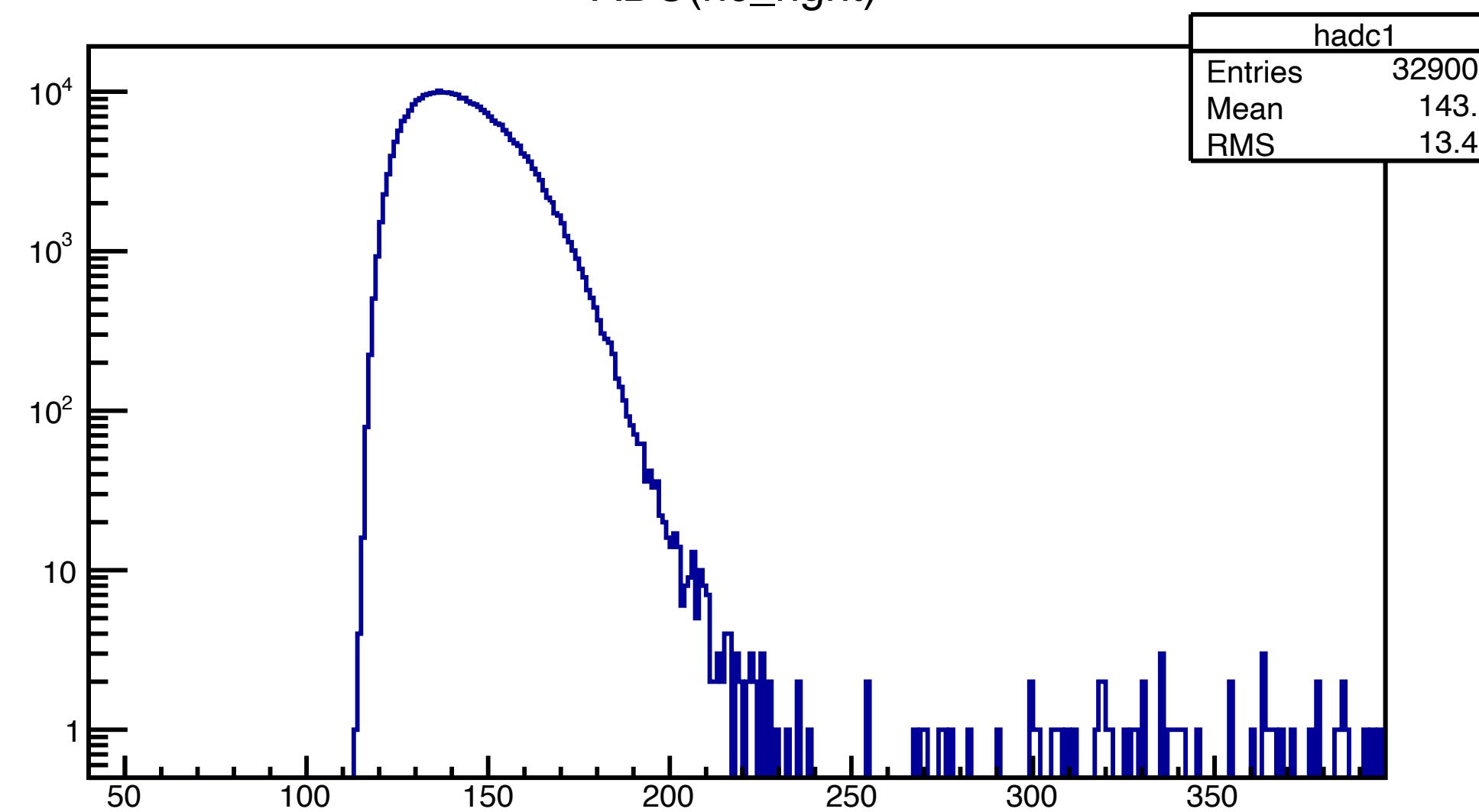


TDC(nc_left)

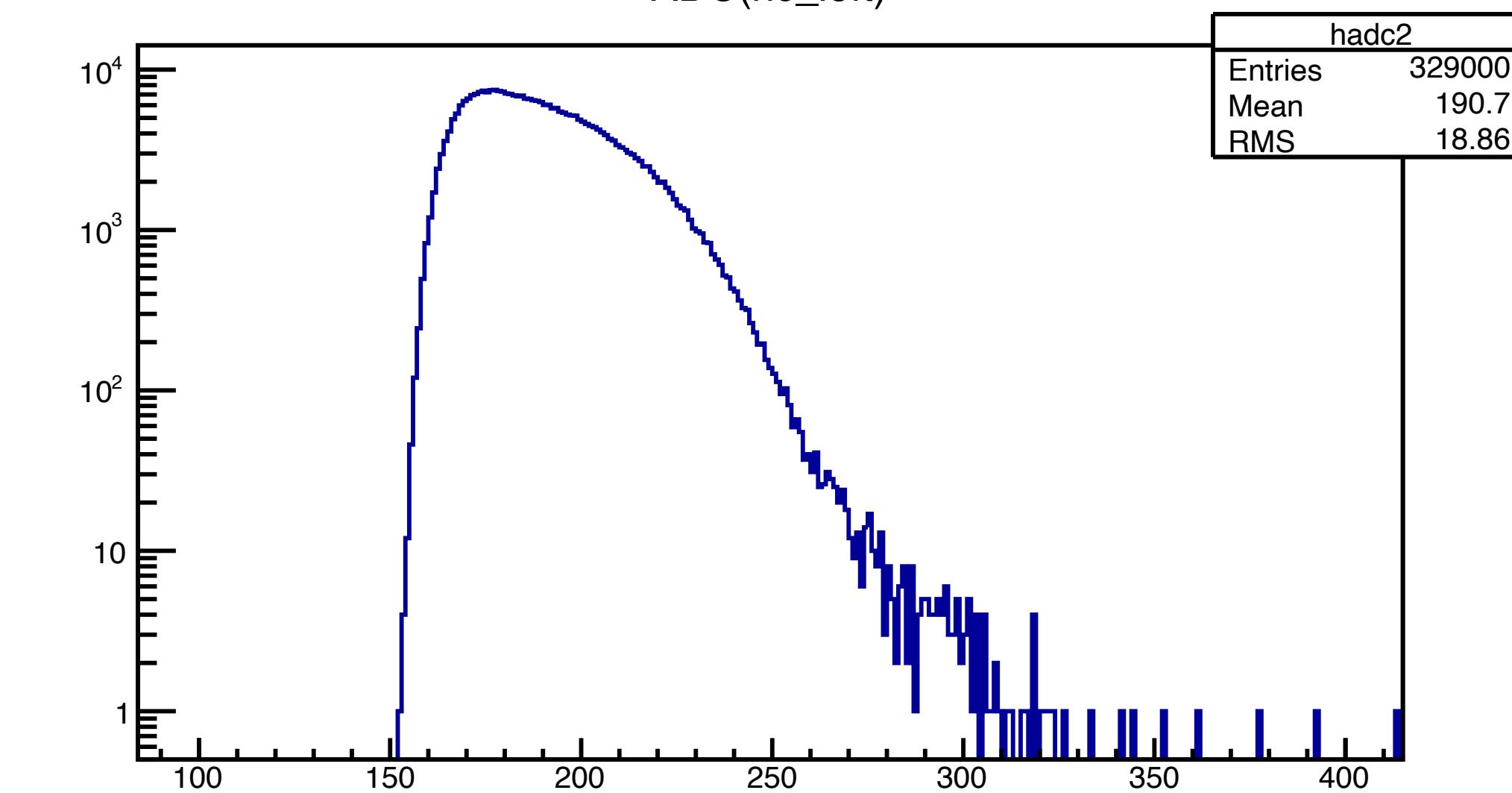


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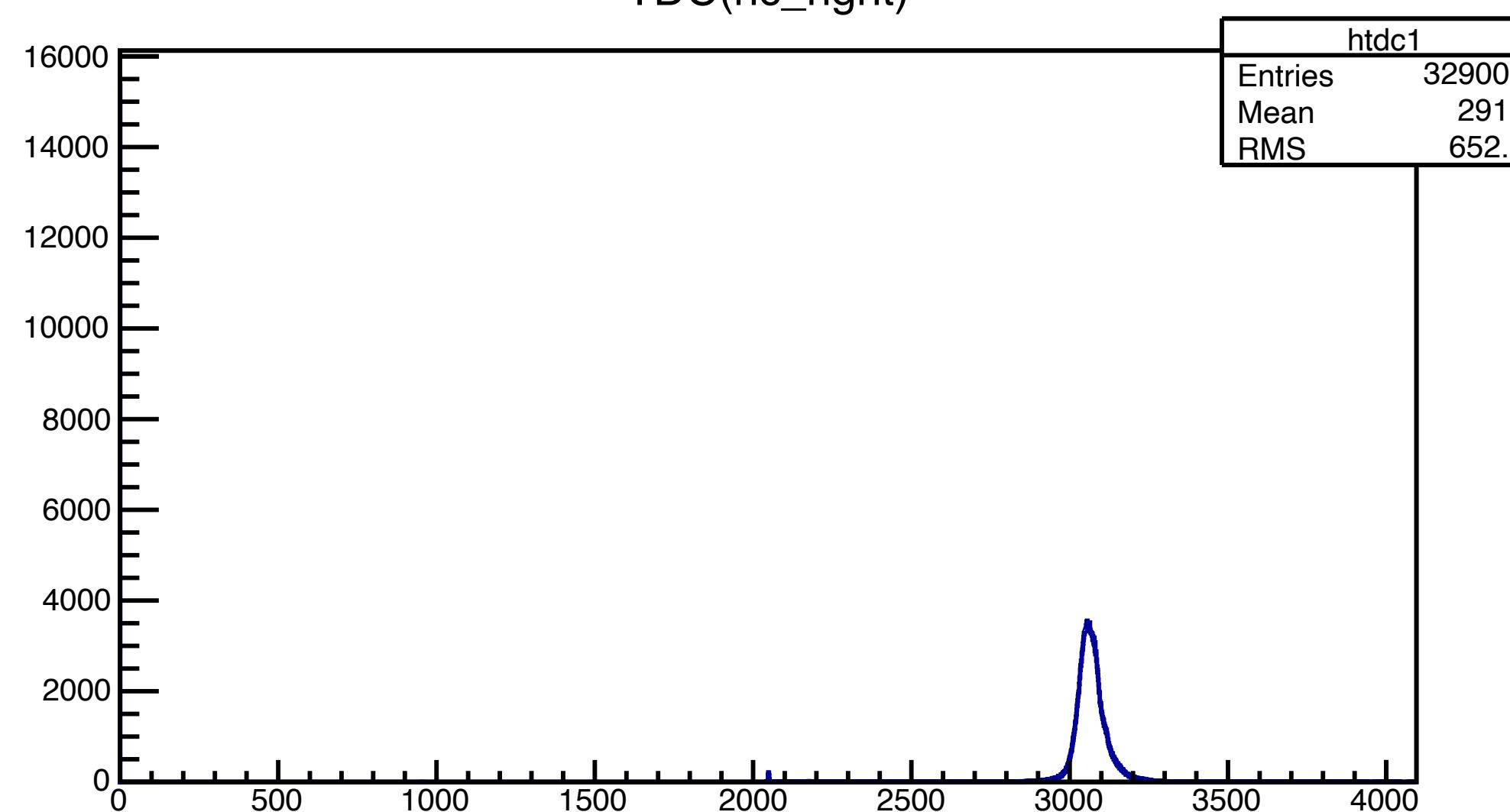
ADC(nc_right)



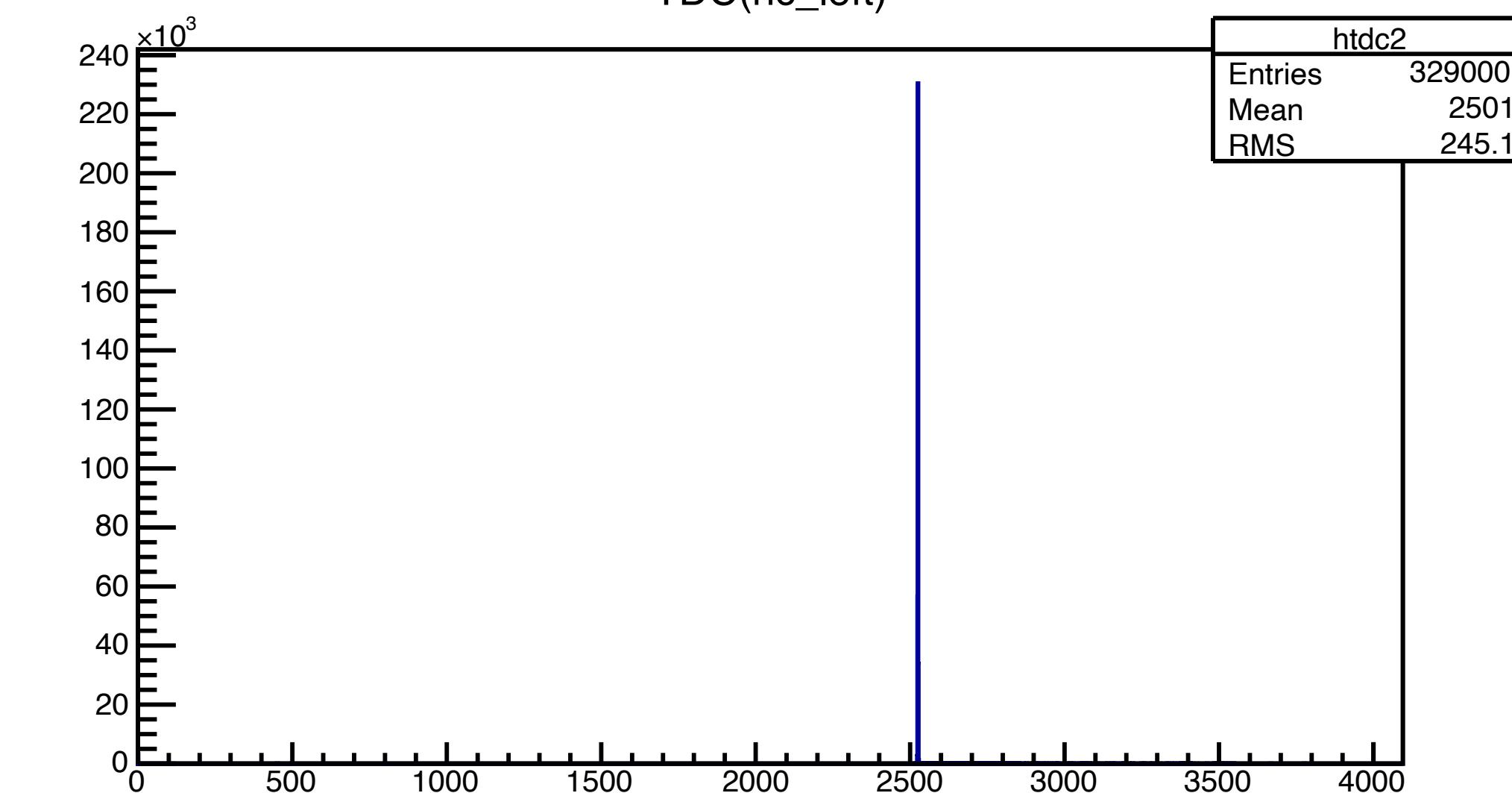
ADC(nc_left)



TDC(nc_right)



TDC(nc_left)



Attenuation Length

ADCのTail point

		ch1	ch2
線源の位置	ch2側		
	1	210	390
	2	220	380
	3	210	350
	4	210	350
	5	210	350
	6	220	340
	7	230	340
	8	230	330
ch1側	9	240	320

・直接波と反射波が重なることによつ
て、信号の減衰が見えない領域がある。

考え

- 反射波があるかぎり、Attenuation lengthはADCでは決めることができない？
- もしくは信号が重ならない範囲だけで解析するか。

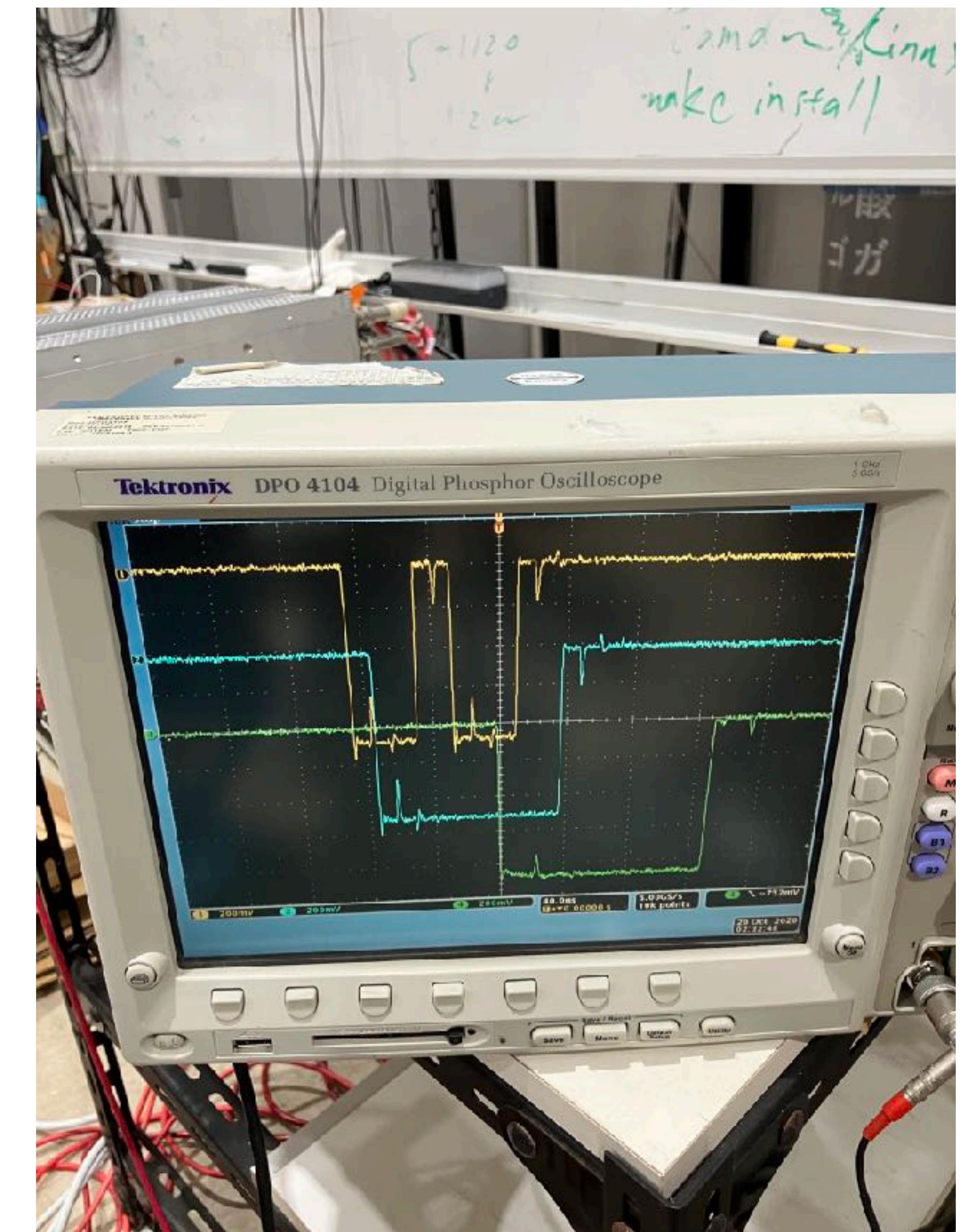
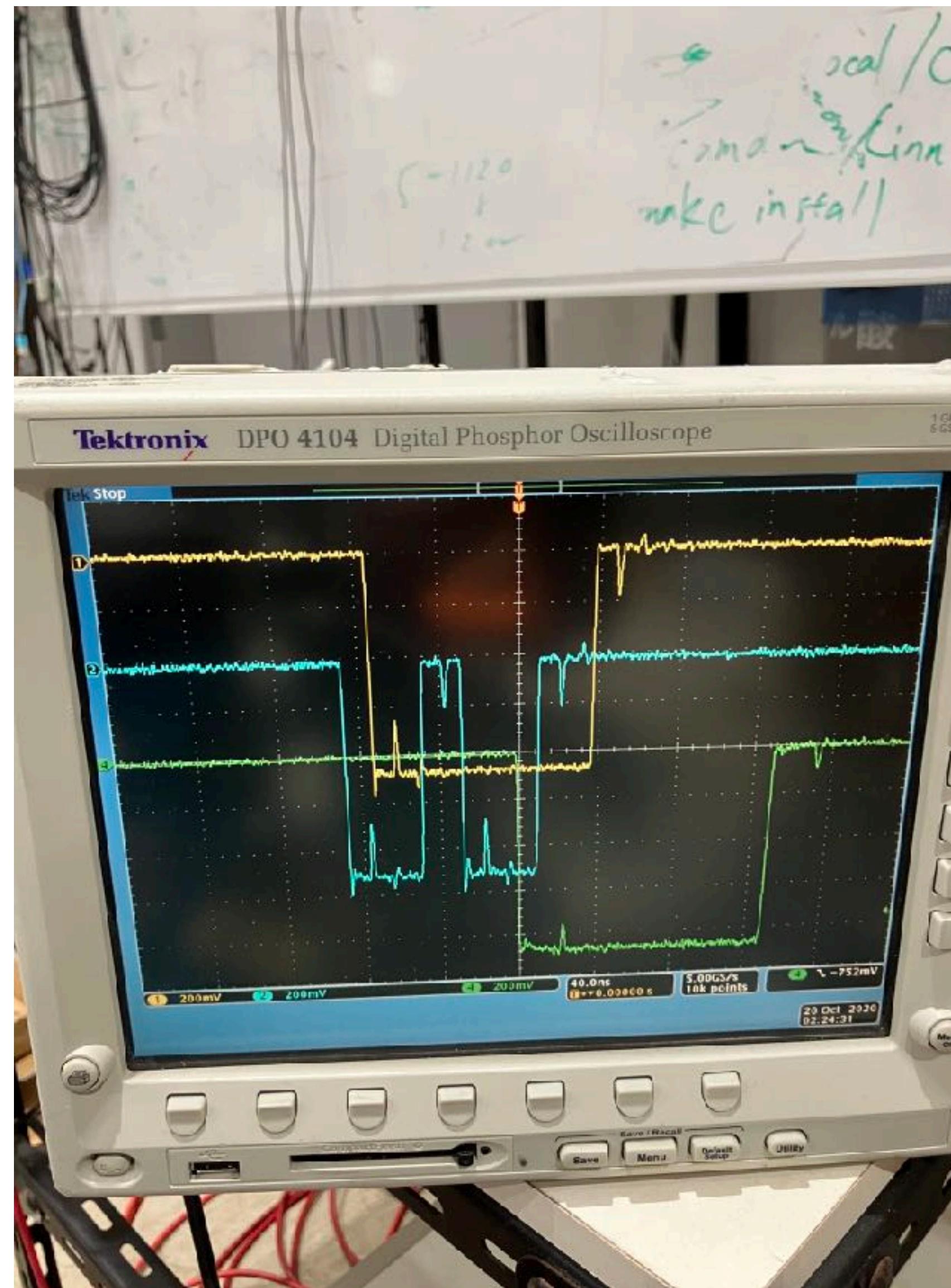
1.5mで？

TDC 2 peak問題の原因?

Attenuation lengthの測定のSetupをしているときのTDC入力信号とゲート信号の画像

左が元々の画像。ch2でたまにこのような信号がくる。

とりあえず、オシロにつながっているケーブルをch1と2で交換した。(右図)



今後について

- CNCテスト実験のための台を作成。(保管場所？)(木～来週)
- スライドレール、CNCを実際に台に乗せて、ジグが機能してるか確認。(金～来週)
- Attenuation lengthの結論を出す。()
- TDC 2 peak問題、ref1の放電(?)問題を詰める。()