

EICROC0 Meeting

05/12/2023

S. CONFORTI DI LORENZO
A. VERPLANCKE

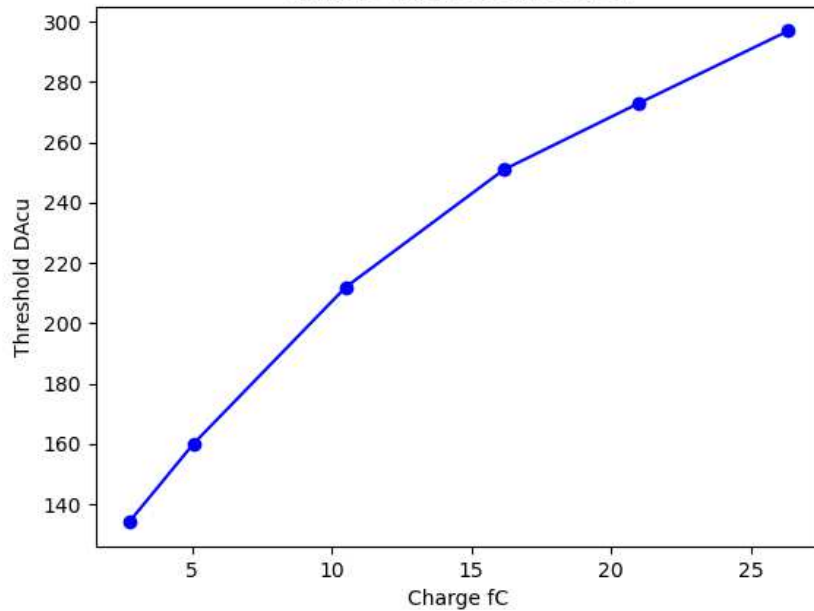
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Organization for Micro-Electronics design and Applications

- Firmware update (old version @ Omega)
 - New version implemented ✓
 - Scripts corrected to work with new firmware ✓
- Code development for new firmware
 - Config files, test scripts, data processing scripts ✓
 - Code that allows to plot S-Curves, TDC, ADC, Hit automatically
 - Uploaded on GitLab
- Documentation write-up (updated over time)
 - User guide ✓
 - Code guide ✓
 - Datasheet
 - Uploaded on GitLab
- Tests on ASIC with new firmware and scripts
 - S-Curves ✓

EICROC0 measurements update

50% Trigger efficiency vs injected charge
(trigger on the oscilloscope)

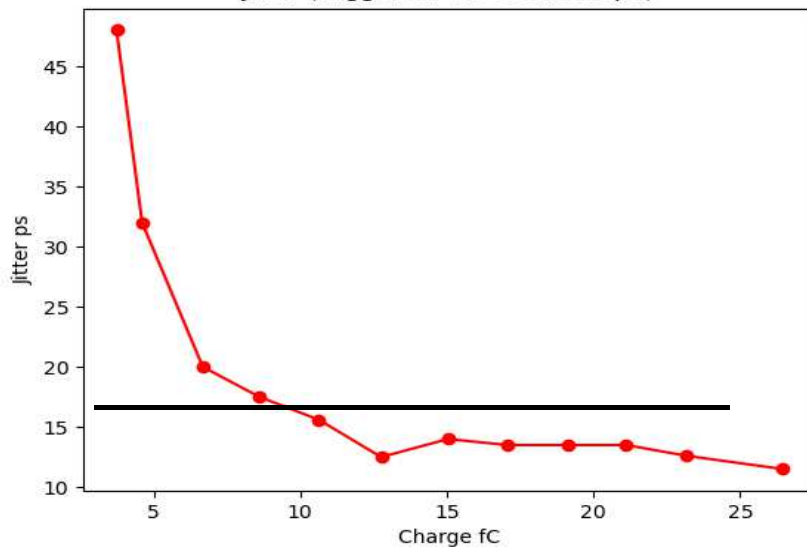


The trigger output signal is observed on the **oscilloscope** at different charges and thresholds.

The 50% trigger efficiency is plotted against the injected charges

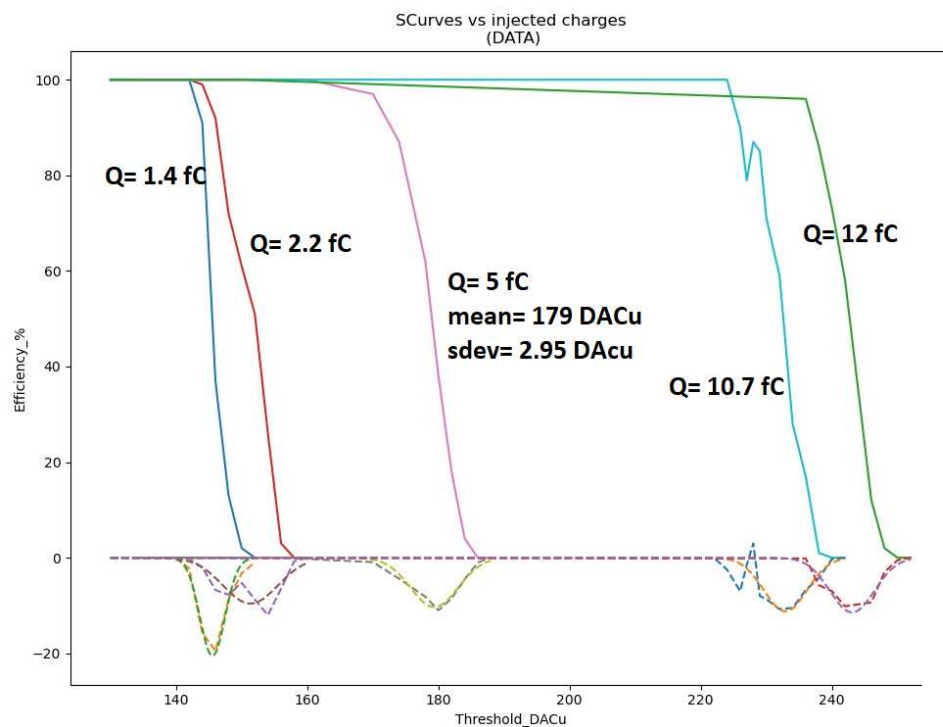
NO 160MHz CLOCK

Jitter (trigger on the oscilloscope)



The trigger output jitter is measured on the oscilloscope vs the CMD pulse at different charges and a **fixed threshold (2 fC)**.

Measurements from DATA



For $Q = 5 \text{ fC}$
Pa_output noise $\sim 3 \text{ DACu} \rightarrow 0,32 \text{ fC}$

WITH CLOCK

0,11 fC / DACu
Estimated pedestal: 131 DACu

