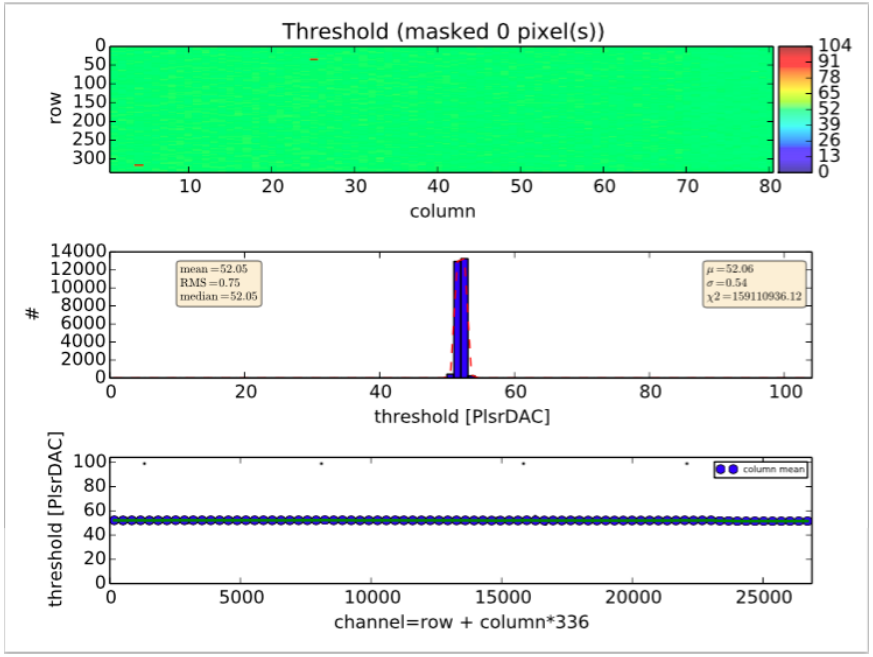
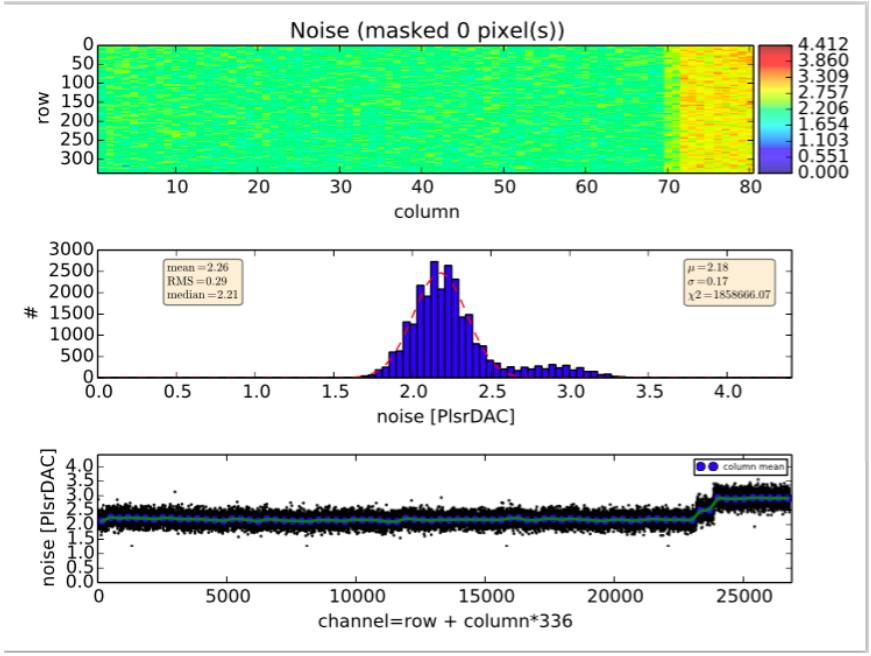
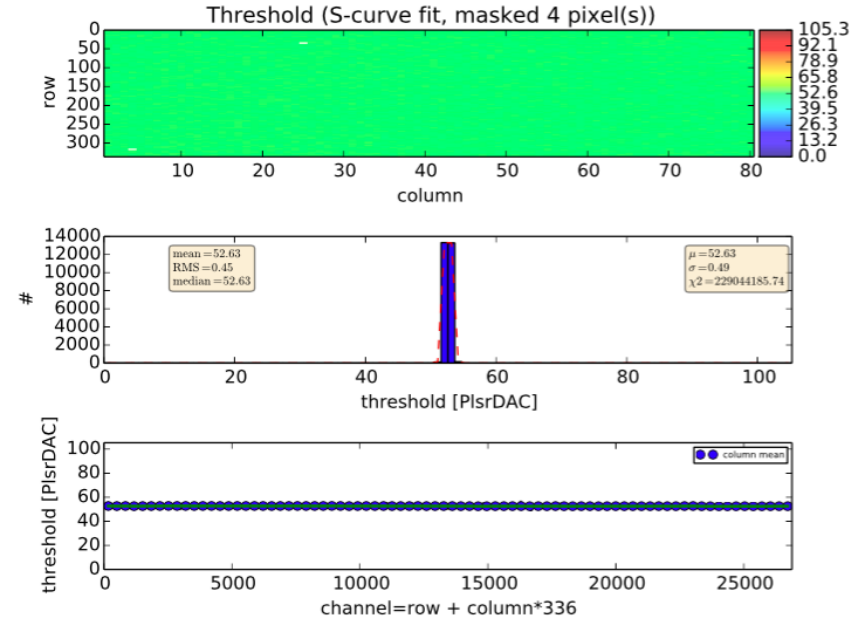
Chip Scan and Board Quality Test Results

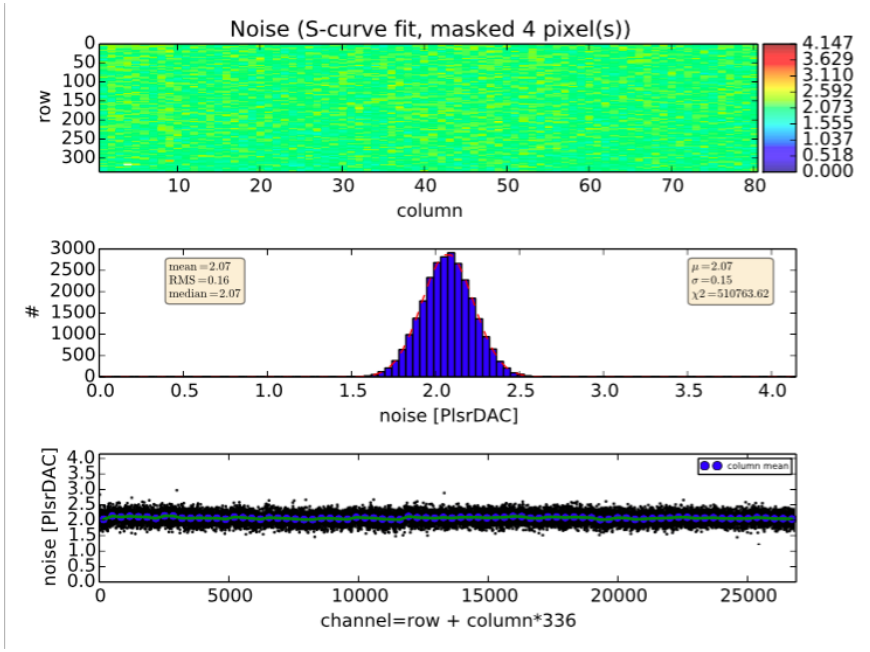
ILSOO SEONG
May 13, 2015

Board #1 (Target Threshold = 52 = ~3000 e, 2.0 pIsrDAC = ~114 e)



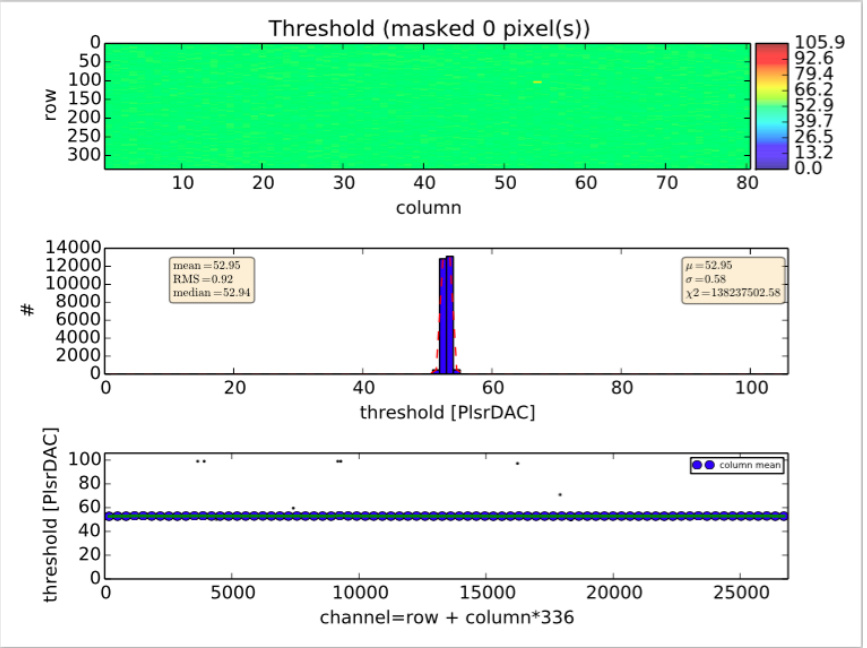


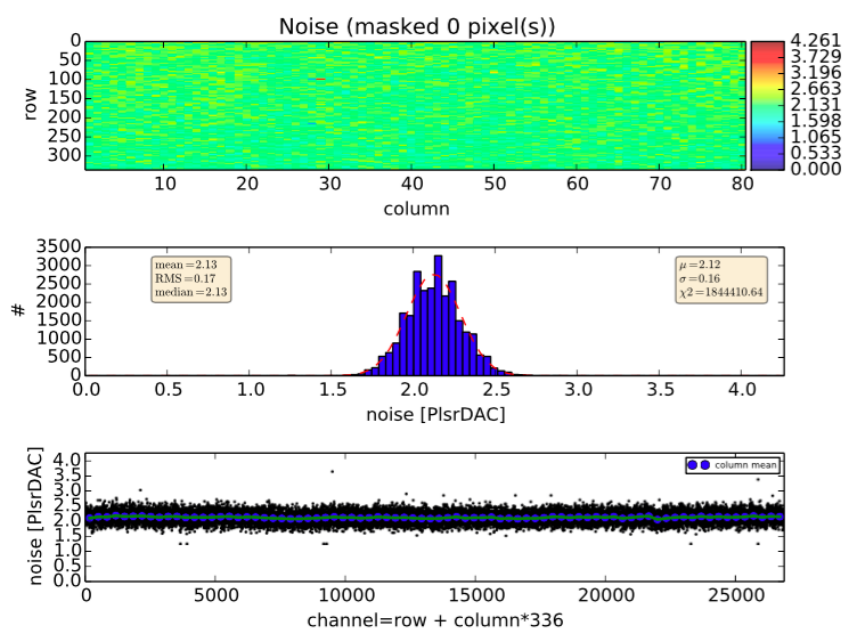


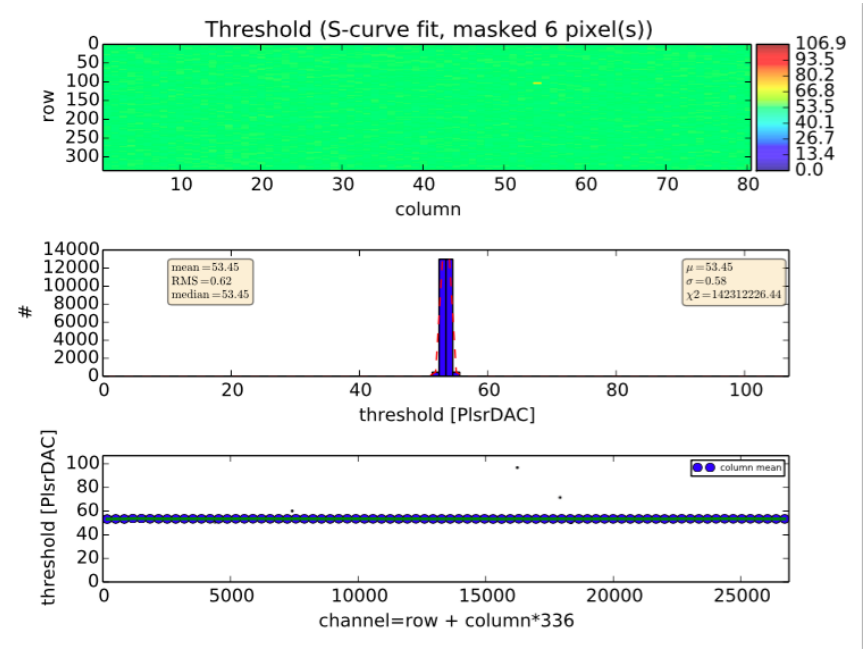


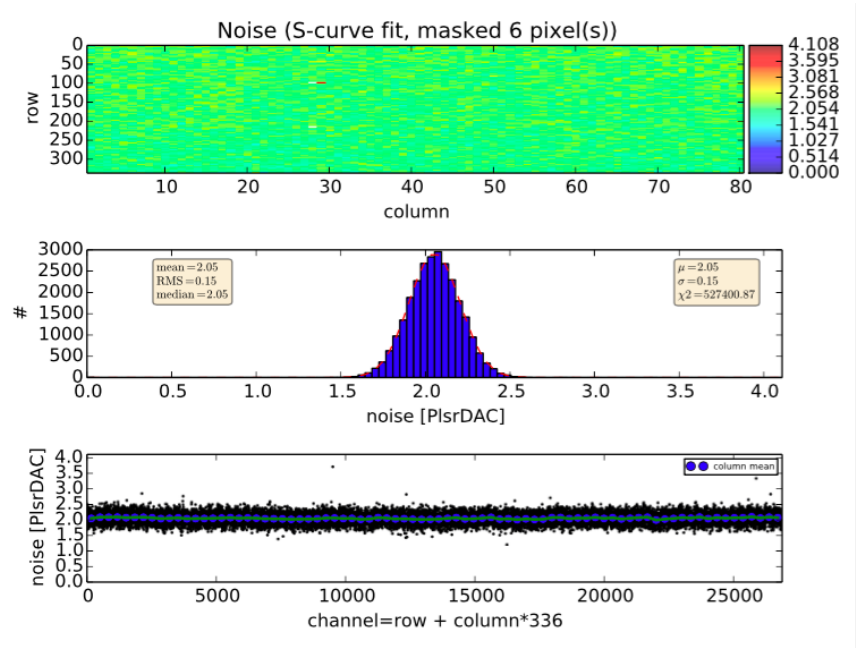
Board #2 (Target Threshold = 52 = ~3000 e, 2.0 pIsrDAC = ~114 e)

Found tiny hair(?) on the chip: I didn't remove it









Summary of Testing Quality for Board

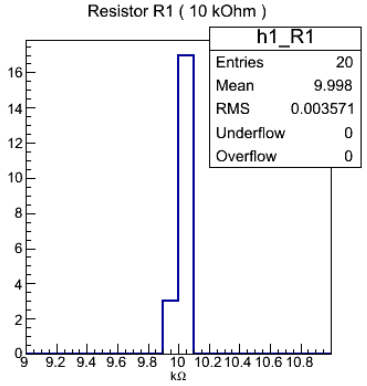
- Most them are very clean. I saw a stain(?) on the two boards only.

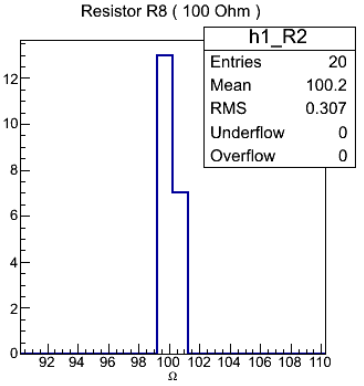
- No missing Components except first one I reported before.

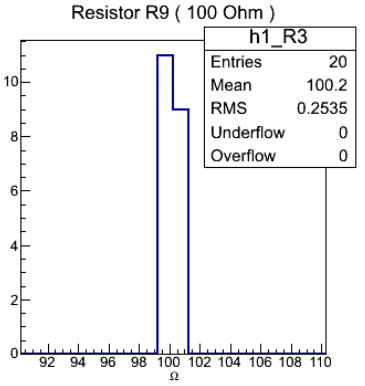
- Resistor values are all within 10% of actual component's value.

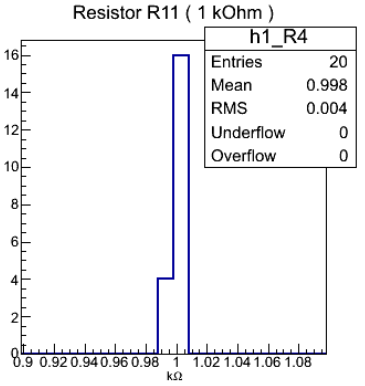
- Capacitor values are very sensitive depending on how I measure
  Most of them (except 5 boards) within 10% from mean of measured value.
  The multimeter which I used before is broken(?) for capacitor measurement
  → I used different multimeter and different probe
  → It caused offset(?).

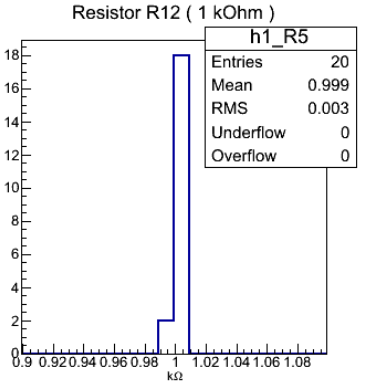
Measured Distribution of Resistors

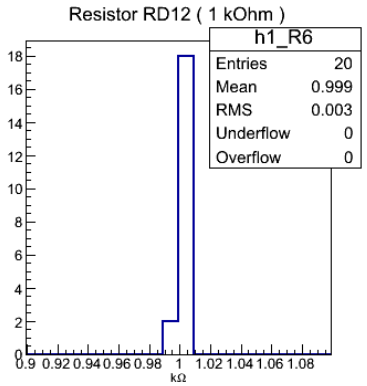


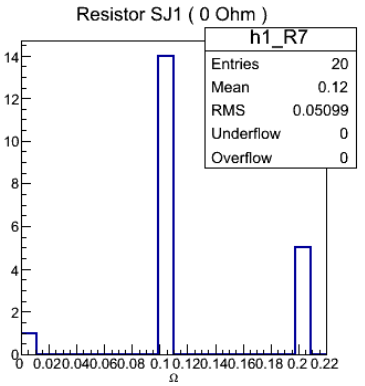


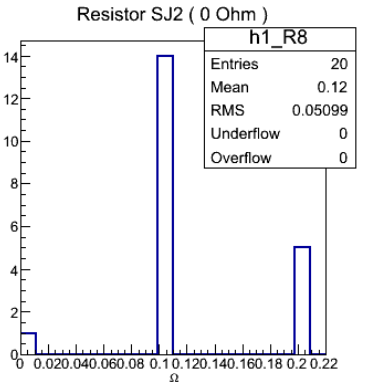


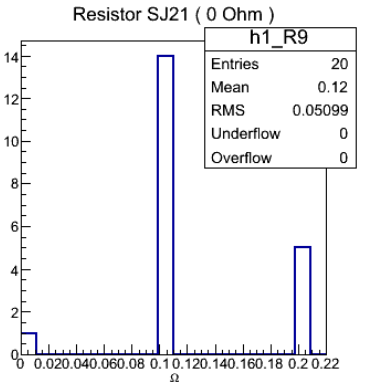


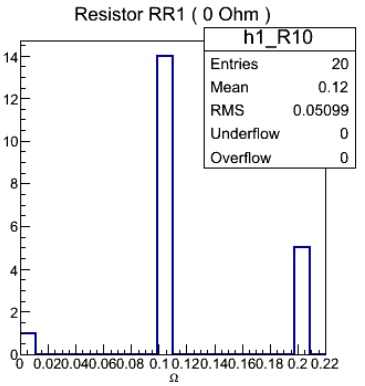


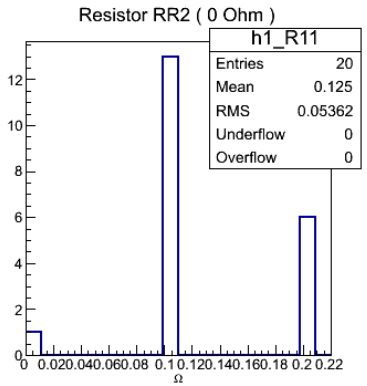


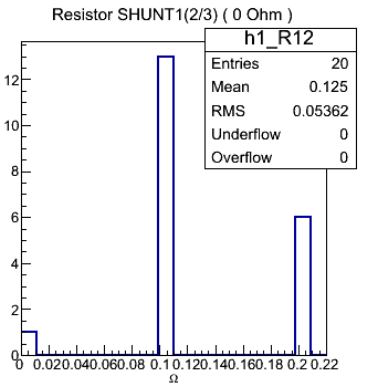


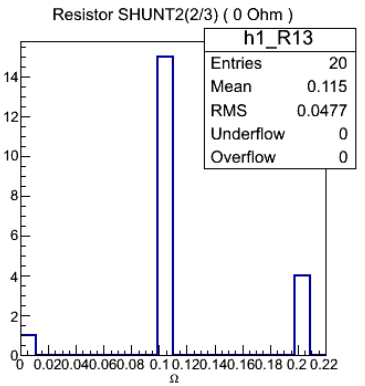






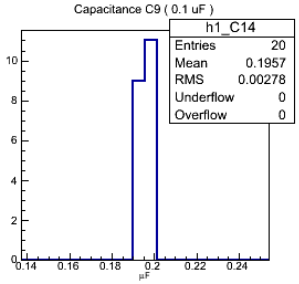


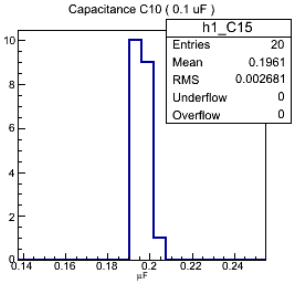


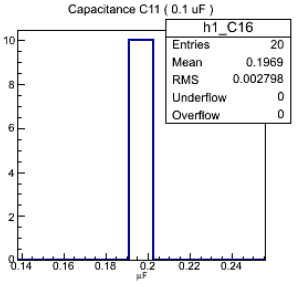


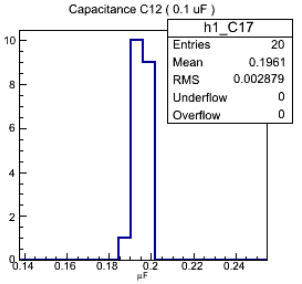
X-axis range is set by
10% based on approx. mean

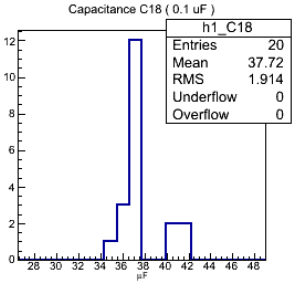
Measured Distribution of Capacitors

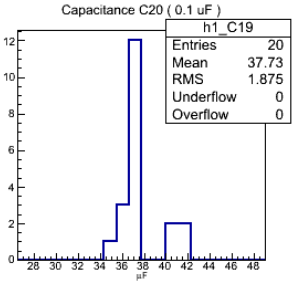


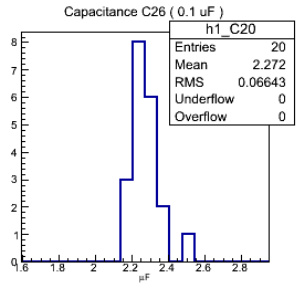


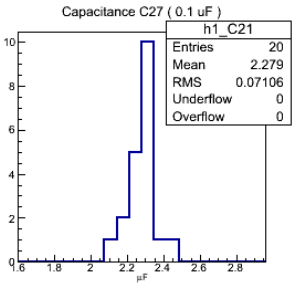


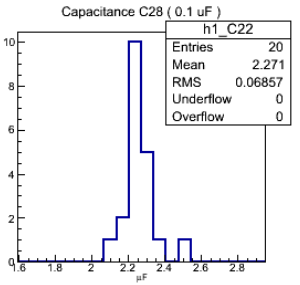


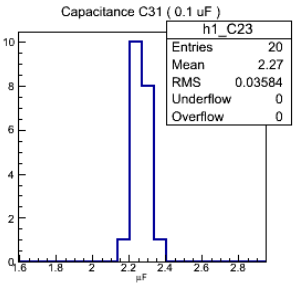


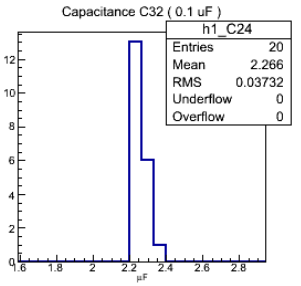


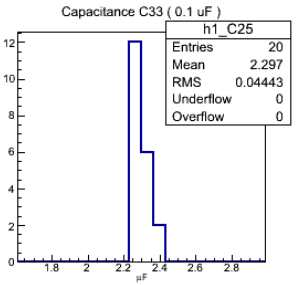


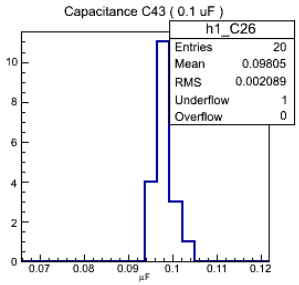


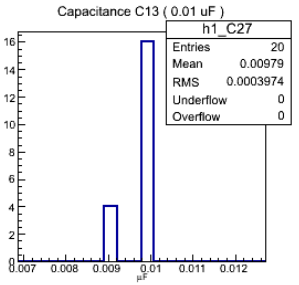


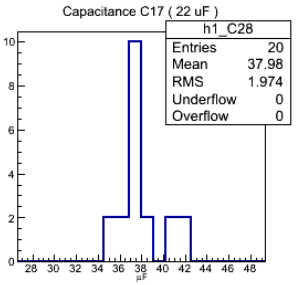


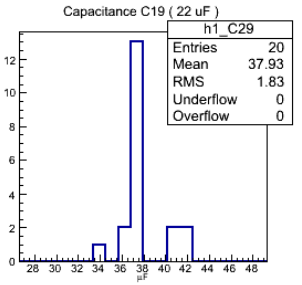


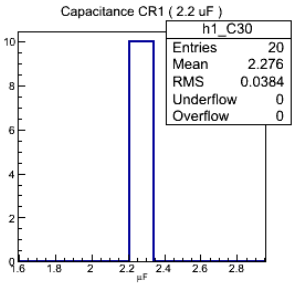


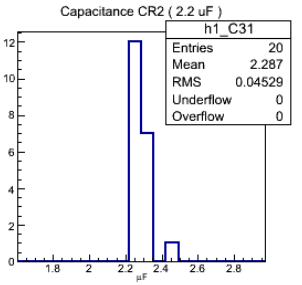


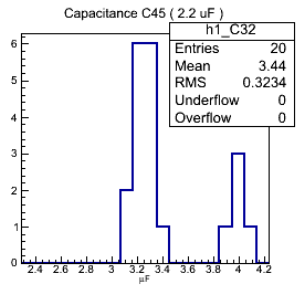


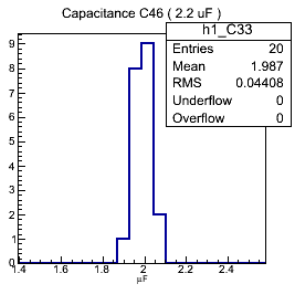


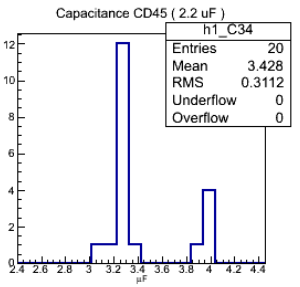












X-axis range is set by
30% based on approx. mean

Next Plan

- Support Plates of the chip are already ready.
- Send all board to Maurice.
  → Question is do we also ask installation of wire-bond bridge?

Testing Chip Process

- Need to Tune each chip.
- Process: Tune → Digital Scan → Threshold Scan
  Q: Anything Else? e.g. TOT Calibration?
- Tune and threshold scan takes around 20~30 minutes per chip:
  Do we need to use clean-room?