

Individual Channel Calibration

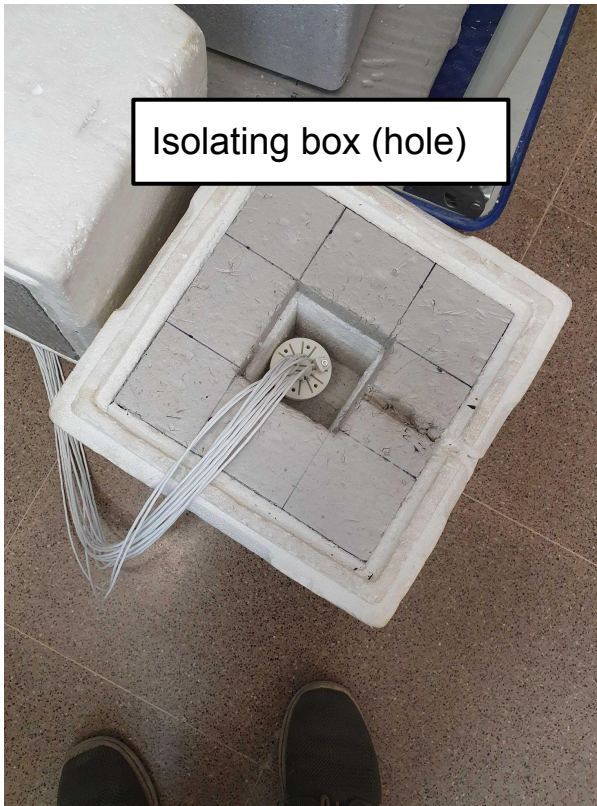
Jordi & Miguel

Set-Up for the Measurements

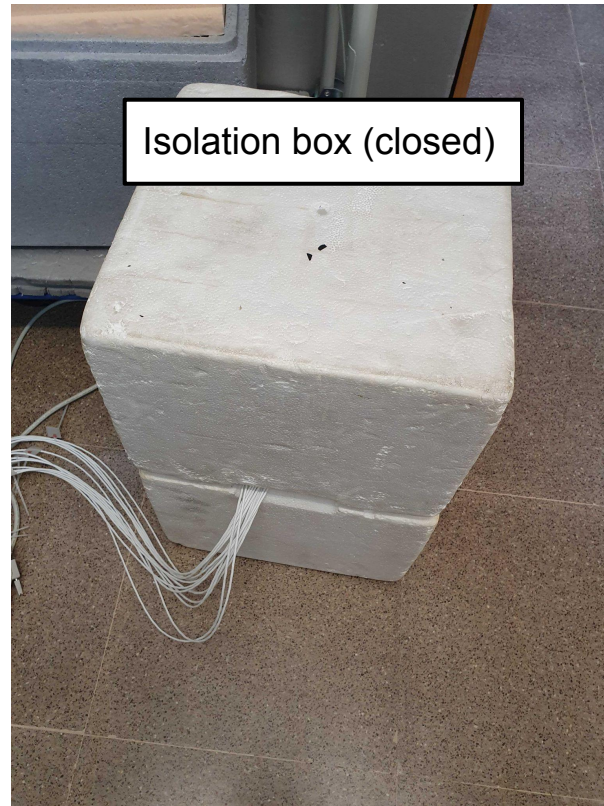
20 Ohm resistances



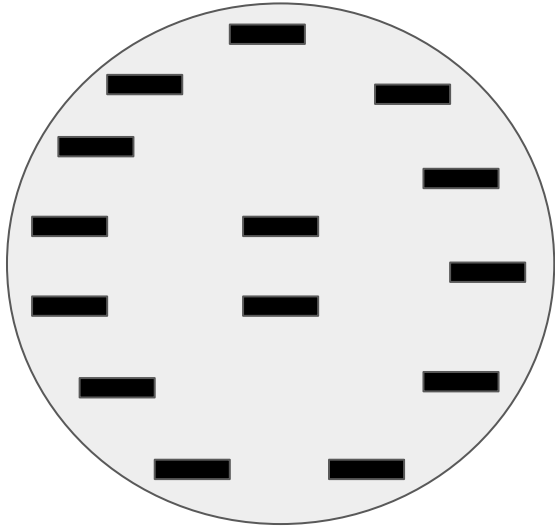
Isolating box (hole)



Isolation box (closed)



Calibration Strategy

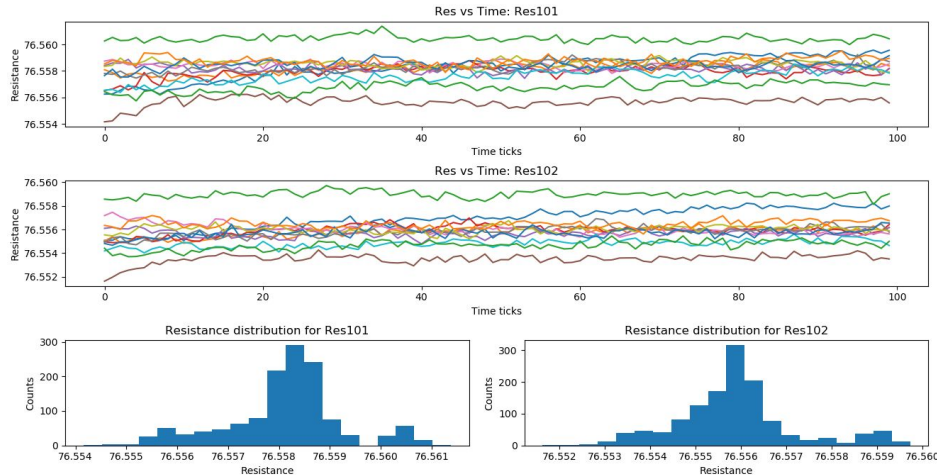


- We have 2 High precision resistors that do not vary with temperature (low TCR) and whose resistance is well known with high tolerance.
- We have 14 resistors with worse TCR and that are already 4 years old.
- In the past month, measurements were done with the old resistors. During March, Miguel started to perform the same measurements with the new ones.
- Strategy: select 2 resistors and leave one fixed at a certain channel (channel 1) while the other is moving along the channels.
- One would expect to get the same difference between these two selected resistors independently of the channels they are connected.

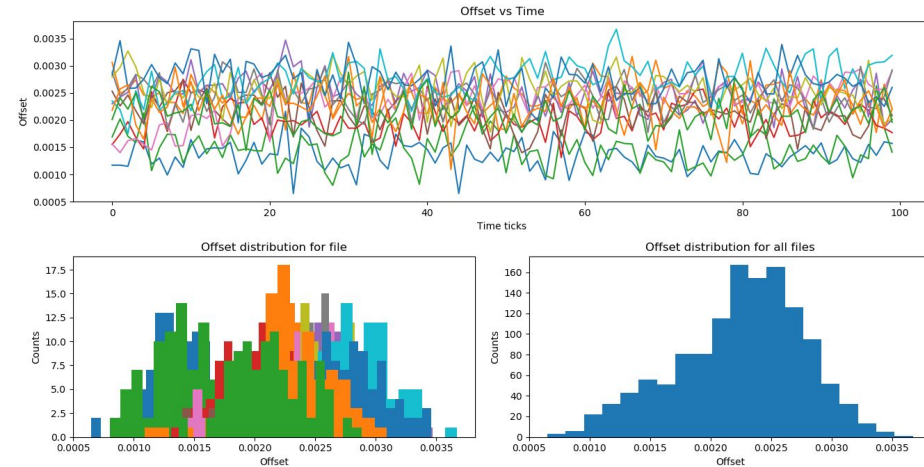
CONFIGURATION 1: 101 FIXED & 102 MOVING

Resistor 101 fixed at channel 1 and Resistor 102 moving along the channels

Resistance vs time for both resistors.



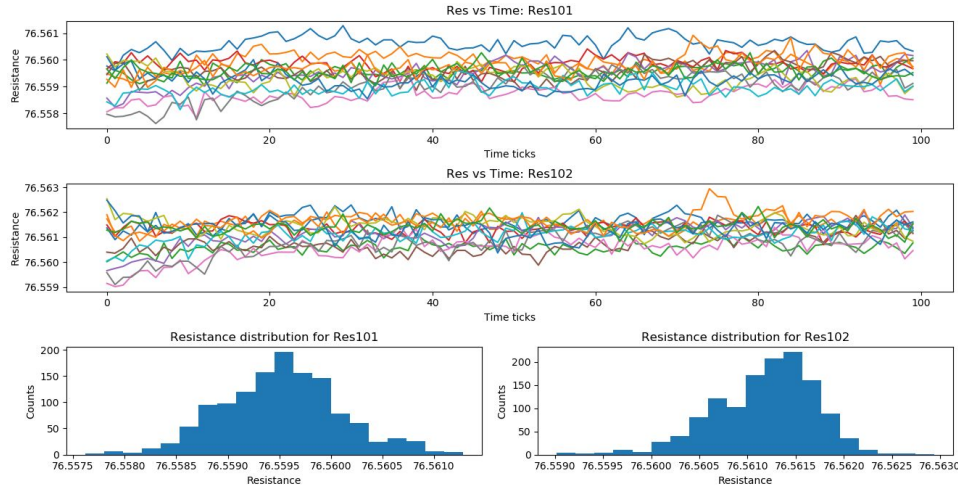
Difference between resistances vs time.



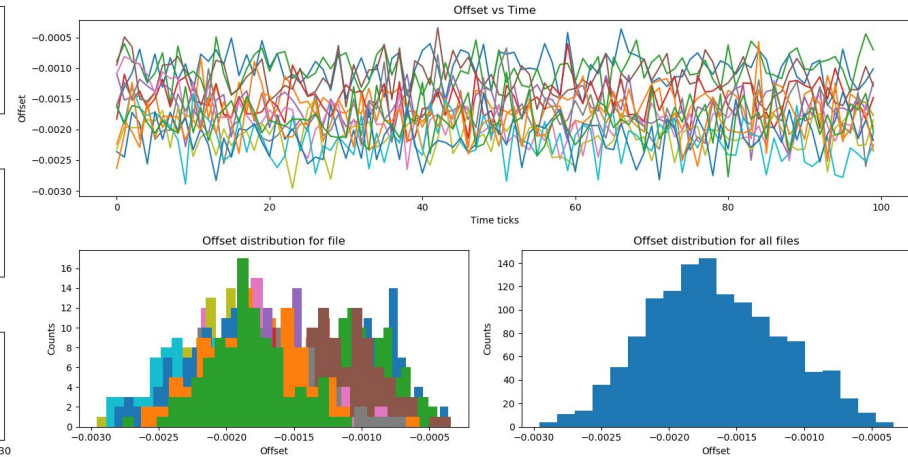
CONFIGURATION 2: 102 FIXED & 101 MOVING

Resistor 102 fixed at channel 1 and Resistor 101 moving along the channels

Resistance vs time for both resistors.



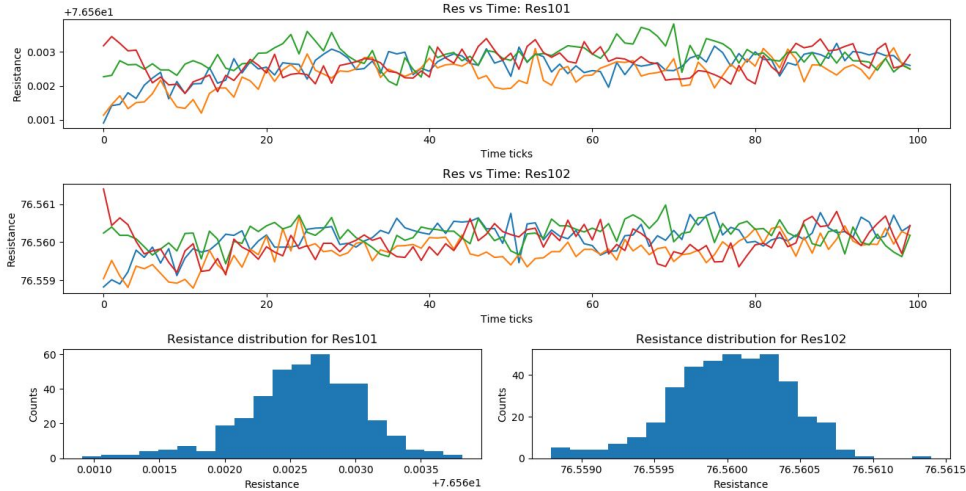
Difference between resistances vs time.



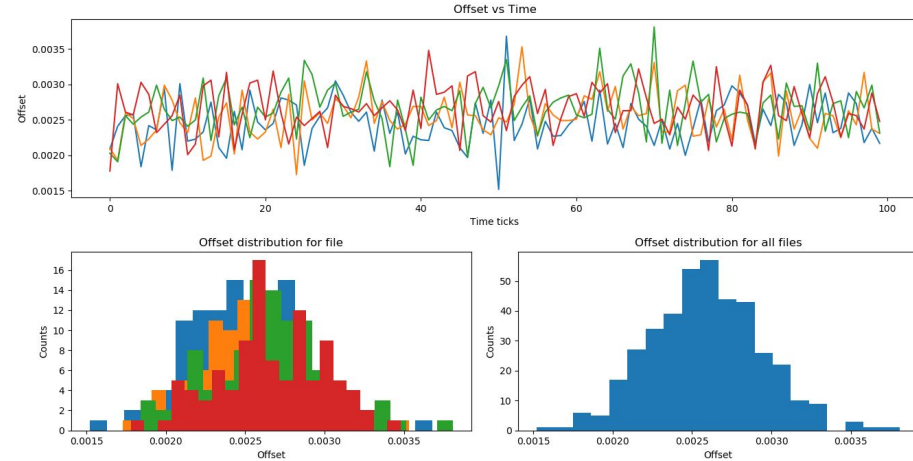
CONFIGURATION 3: 101 FIXED & 102 FIXED

Resistor 101 fixed at channel 1 and Resistor 102 fixed at channel 14

Resistance vs time for both resistors.



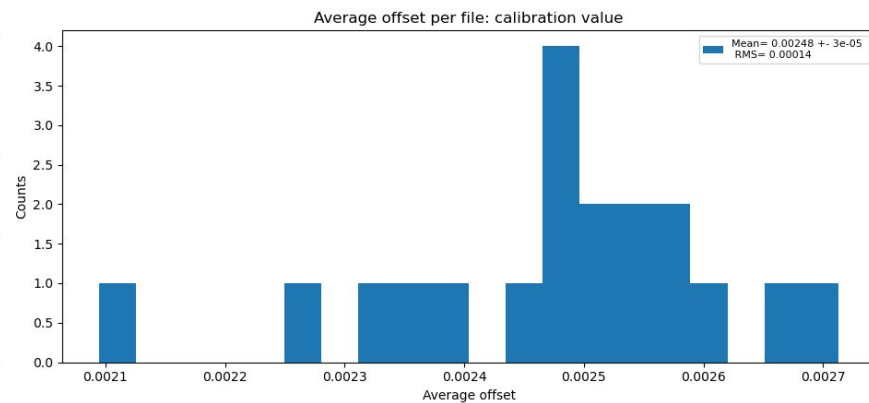
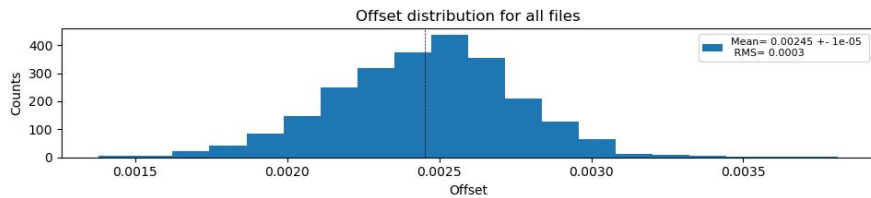
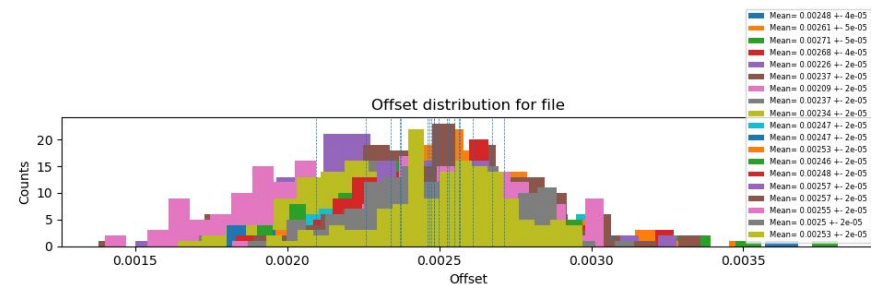
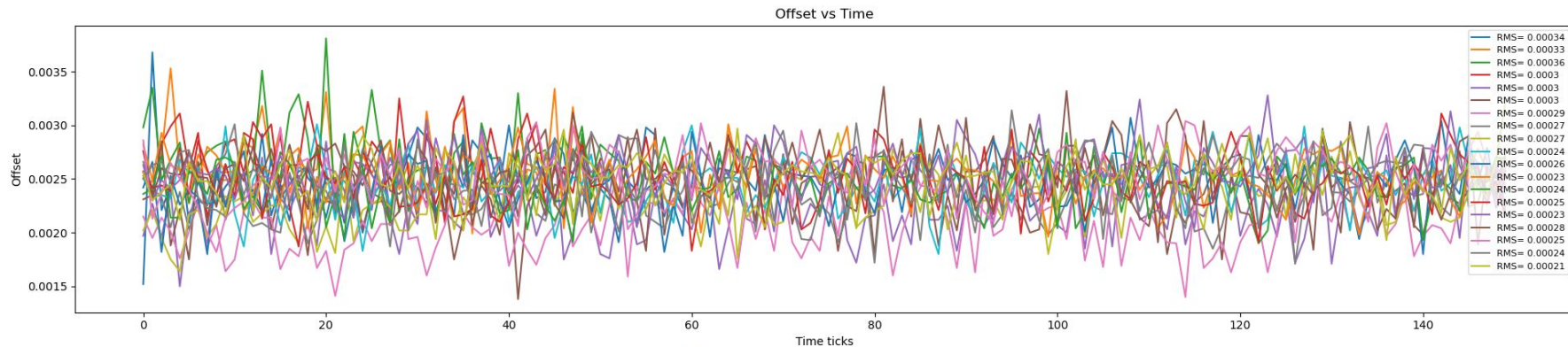
Difference between resistances vs time.



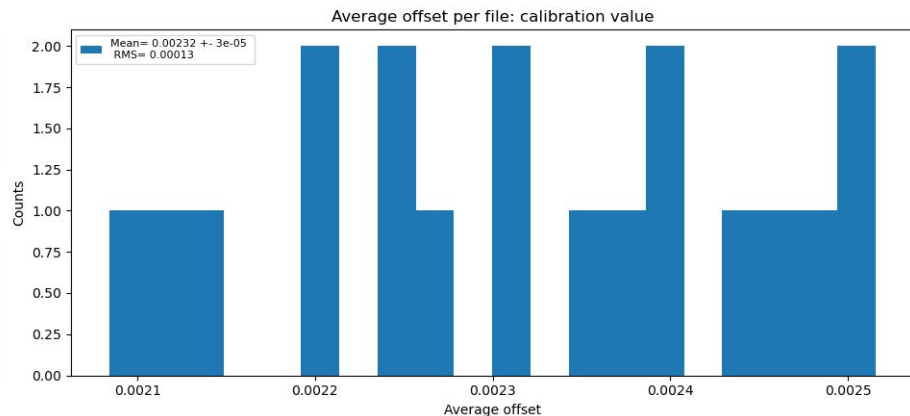
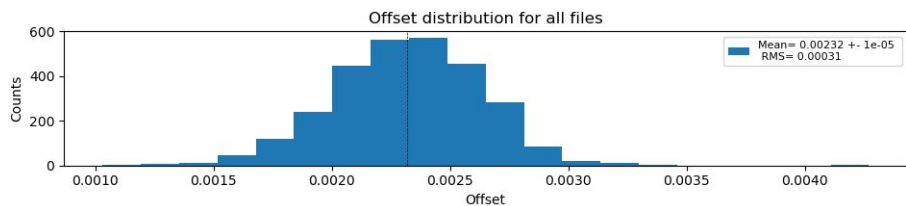
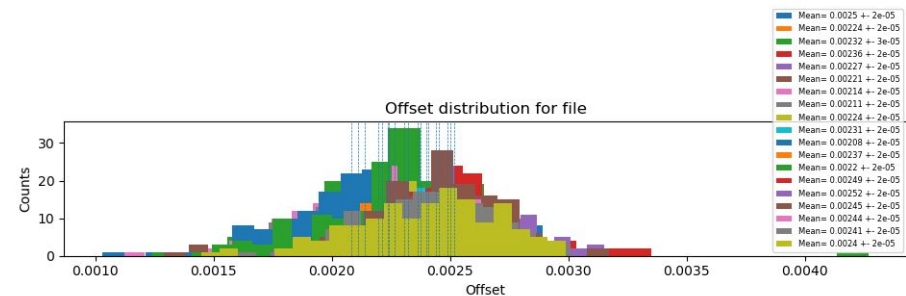
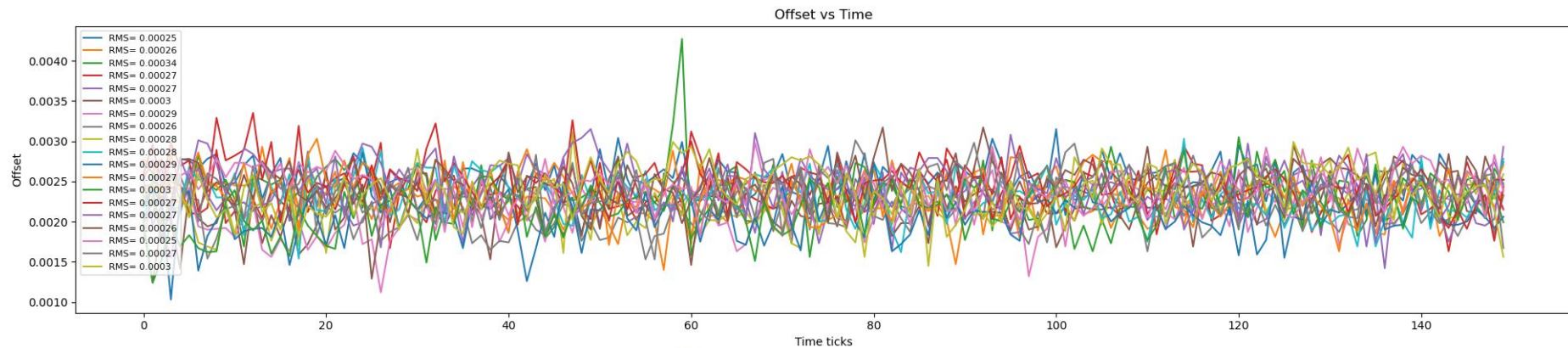
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Miguel's Measurements

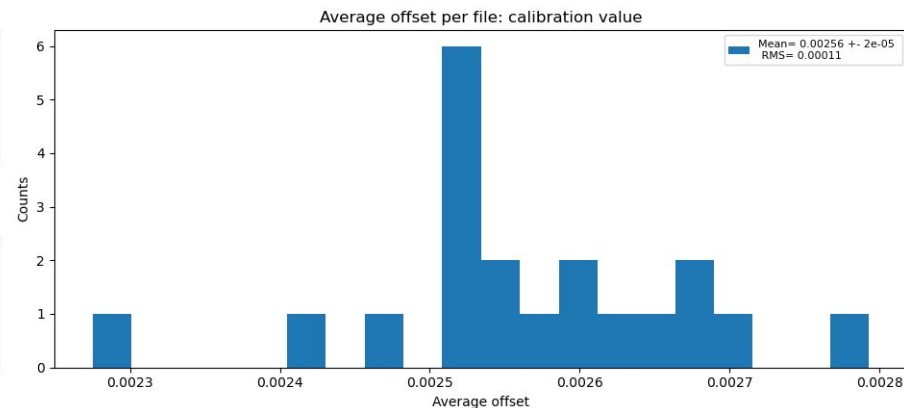
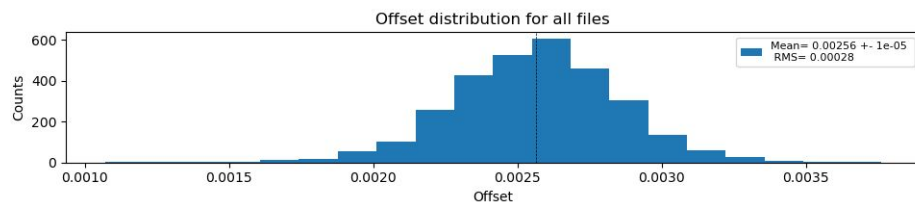
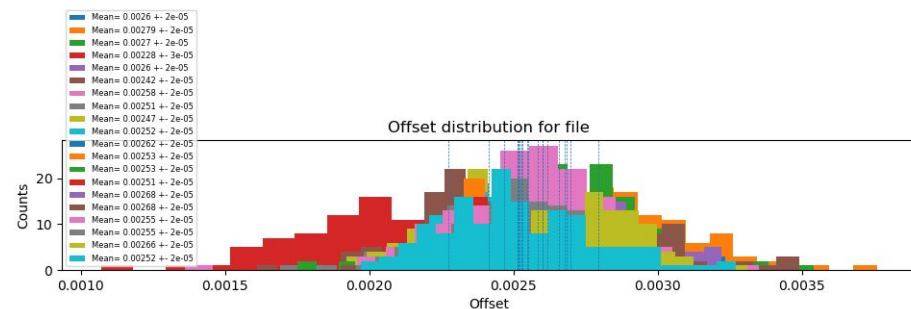
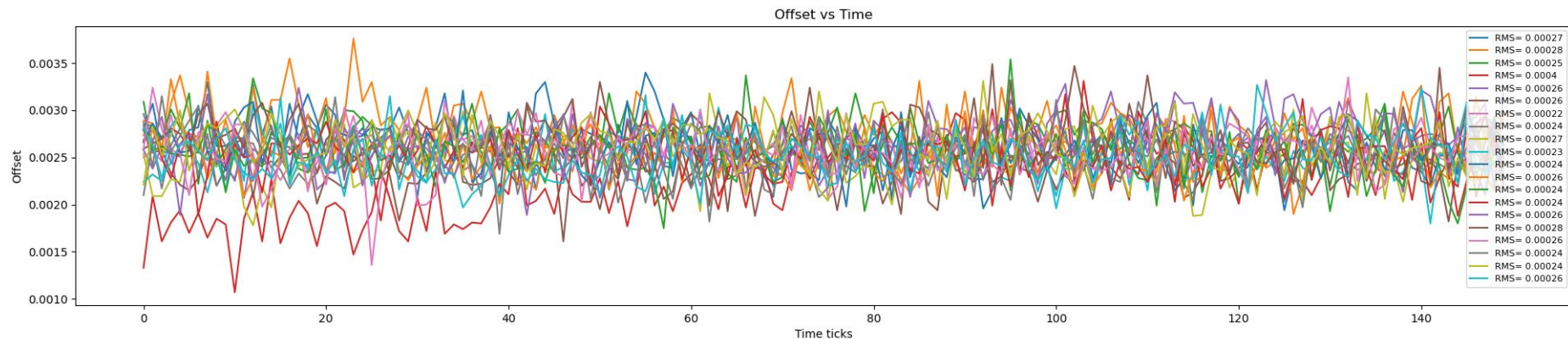
Channel 14



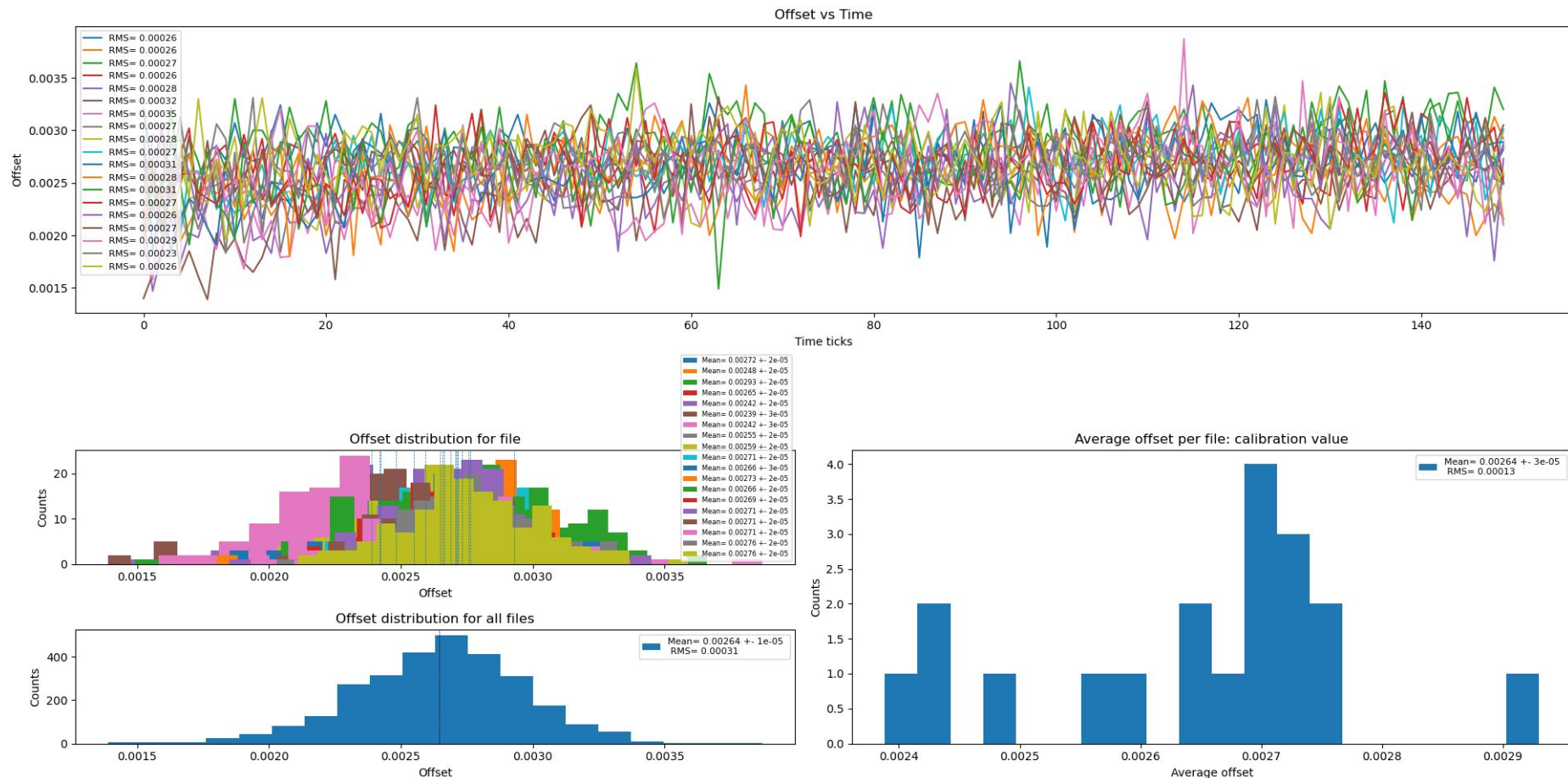
Channel 13



Channel 12



Channel 11



Channel 10

