

# FBK preproduction

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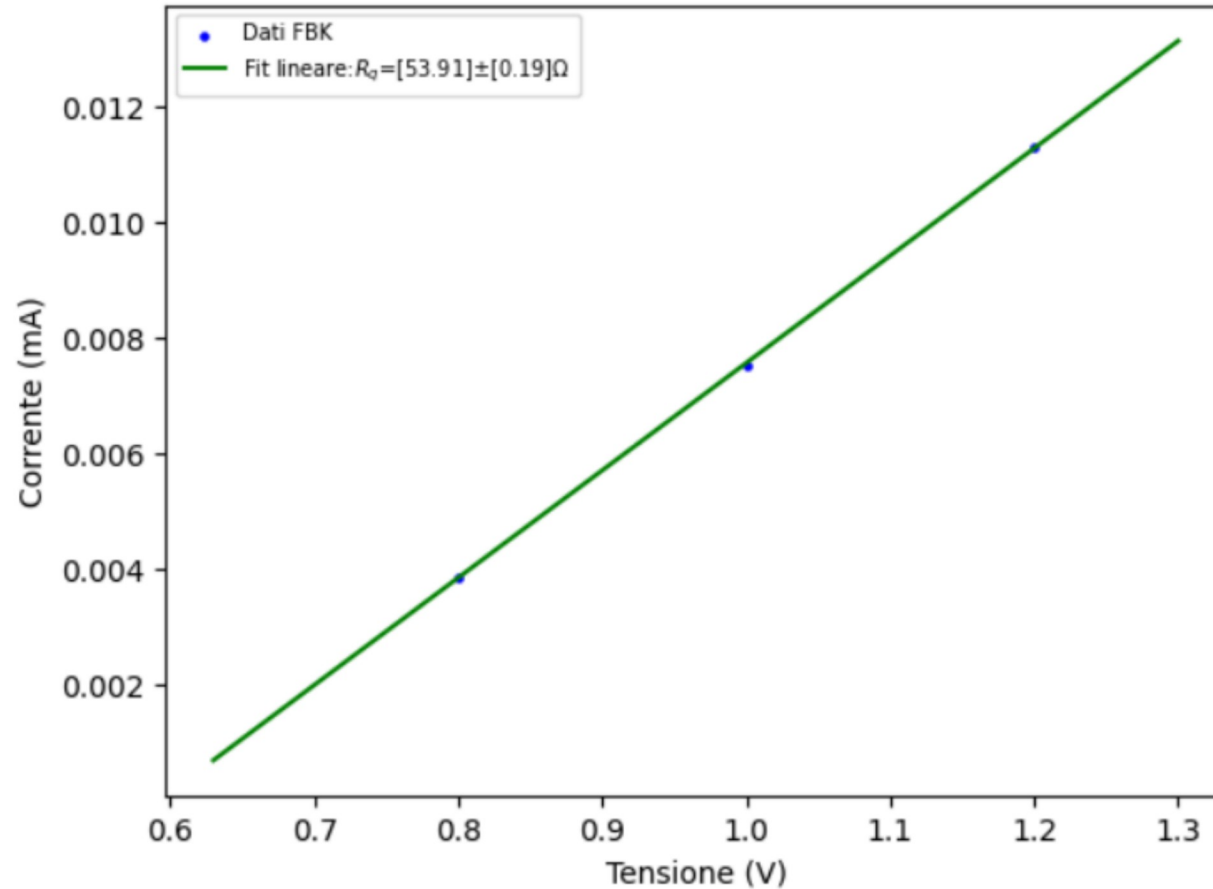


# FBK preprod

- FBK provided us data for 50 boards at room temperature
- FBK raw data: 3 points for FW (0.8,1,1.2)V
- FBK raw data: 12points for REV from 30 to 42V (spaced by 1V!!!!)
- We tested with CACTUS
- Data comparison

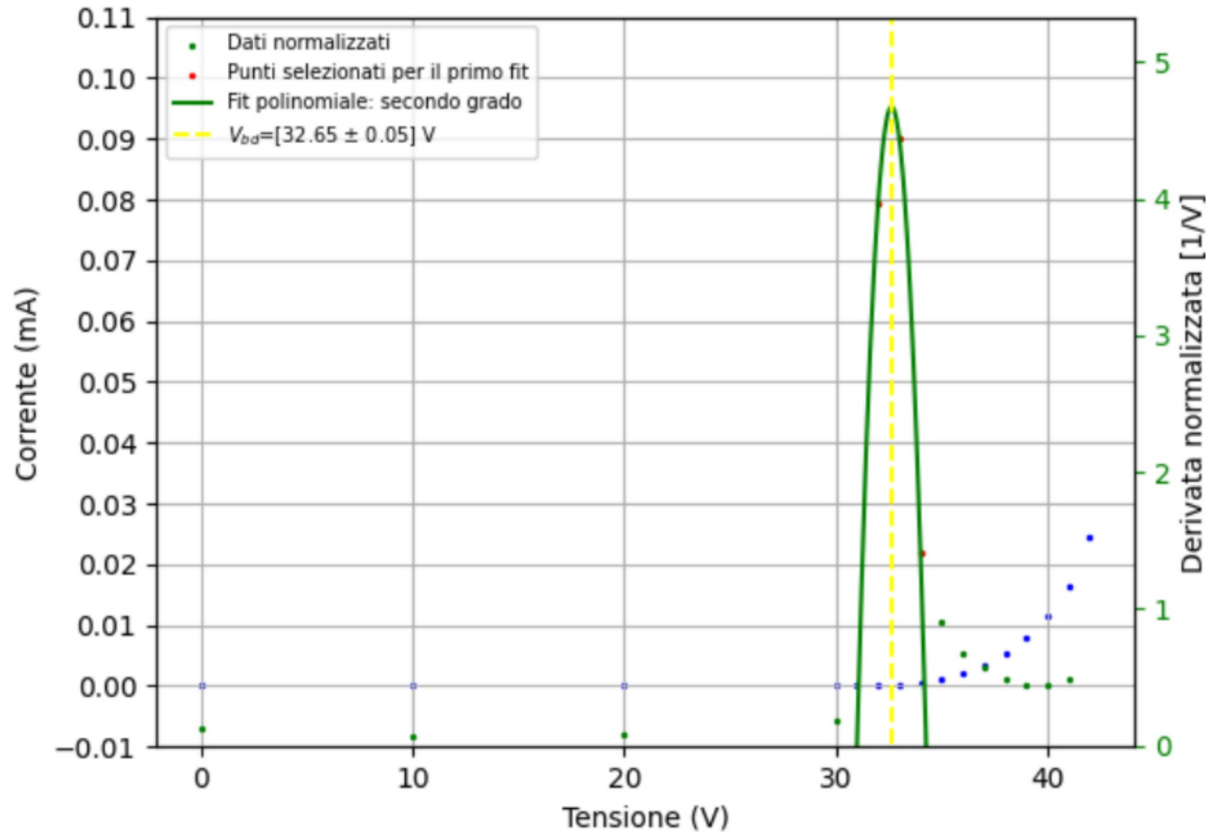
# FBK preprod

- FBK FW example



# FBK preprod

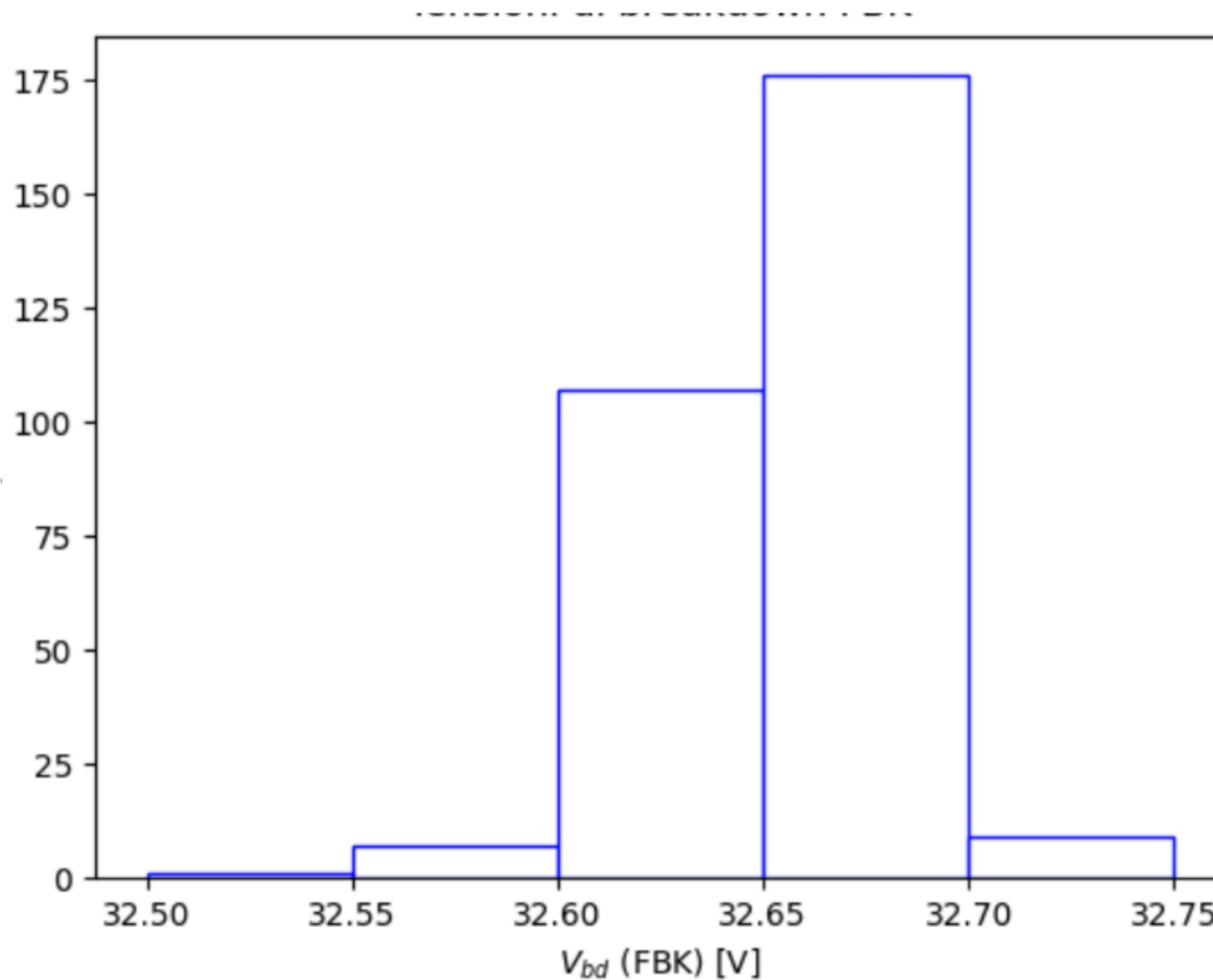
- FBK REV example



N.B. given the very poor amount of data fit considering 5 points

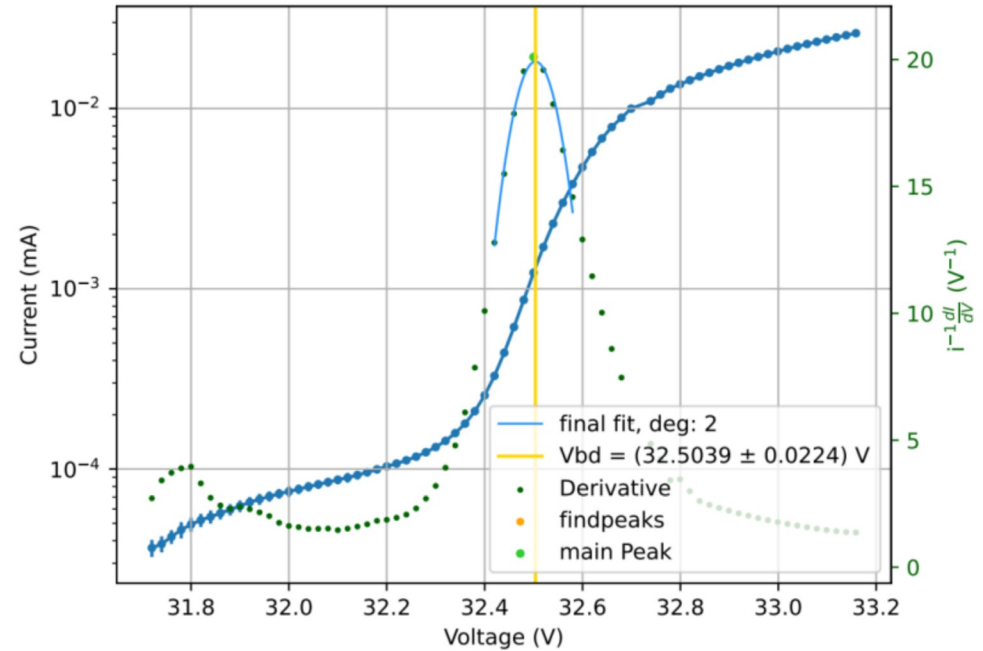
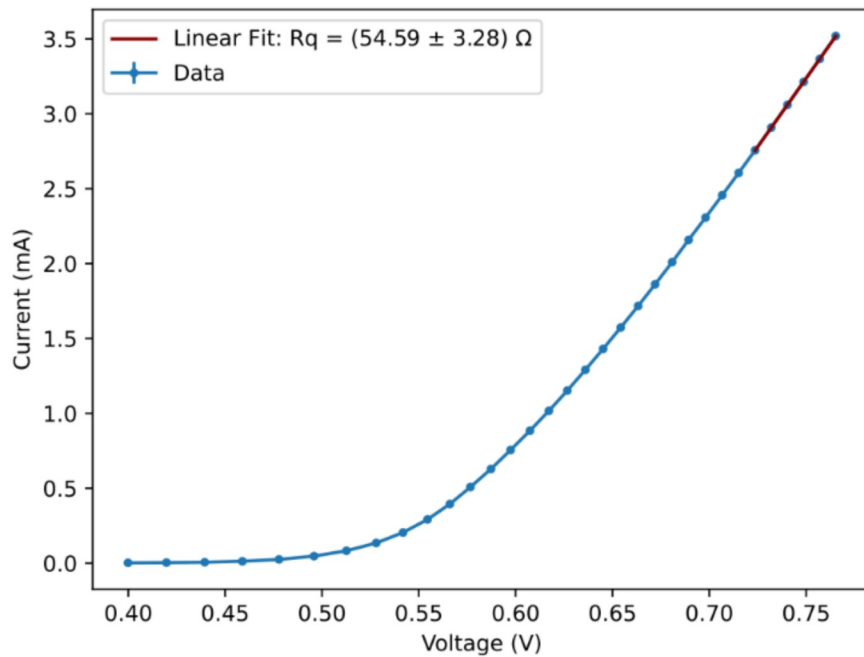
# FBK preprod

- FBK Breakdown distribution



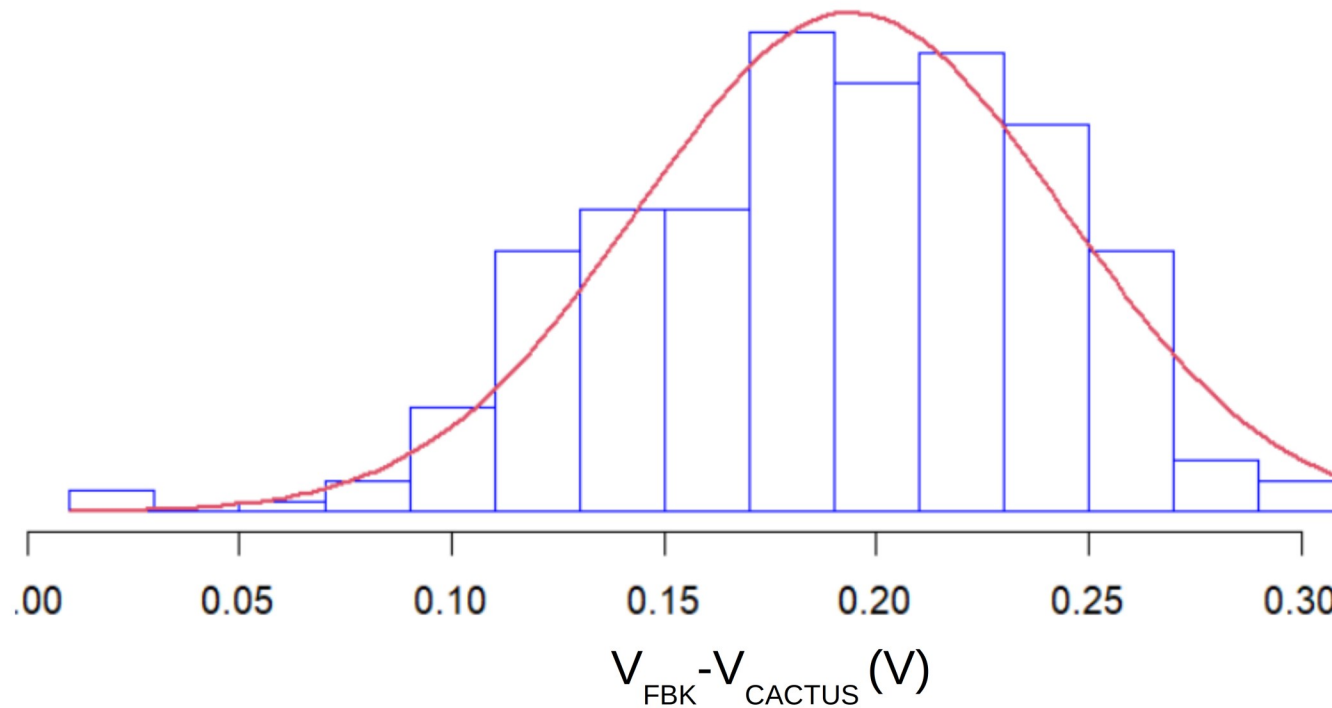
# FBK preprod

- CACTUS Data example



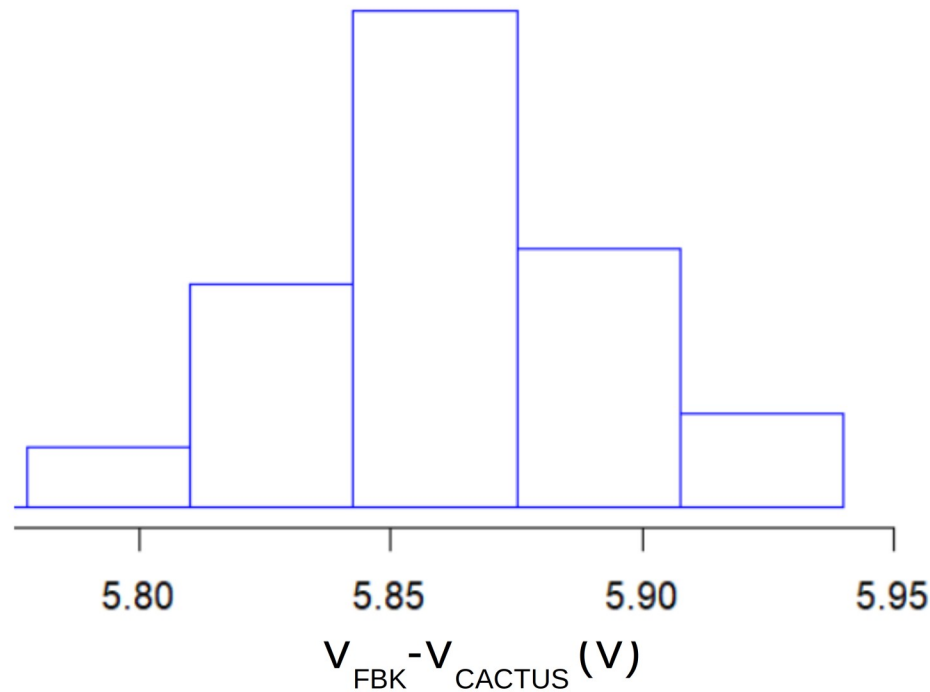
# FBK preprod

- Differences between FBK data at Room T and CACTUS data at Room T. 200mV shift due to differences in temperature



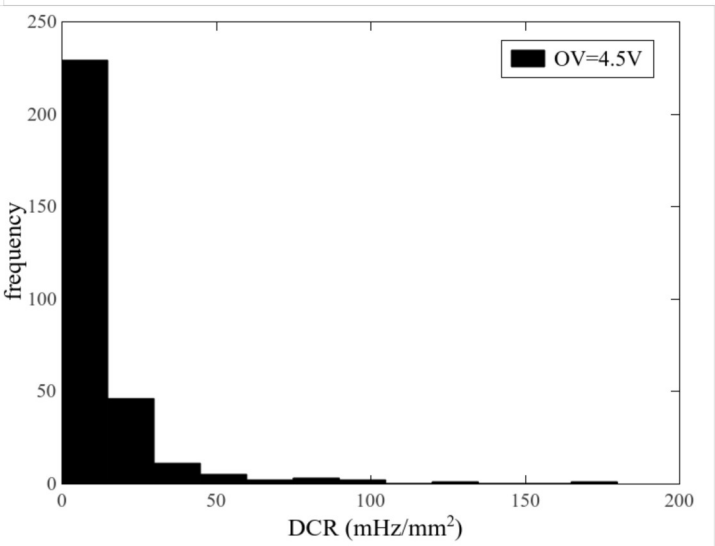
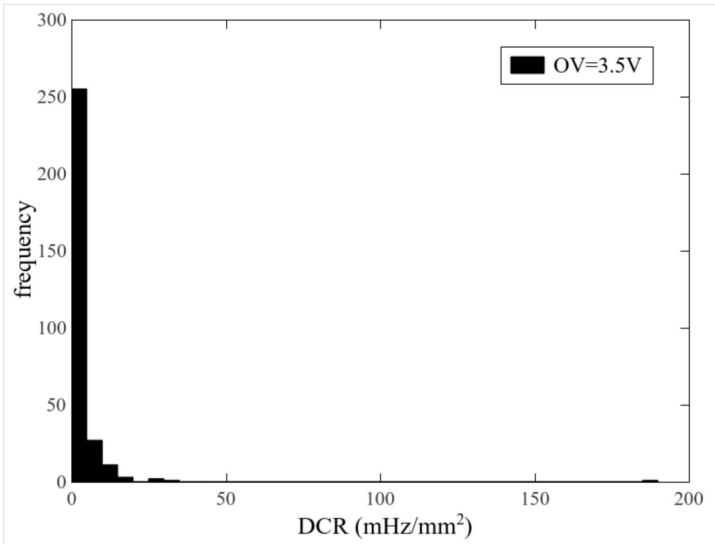
# FBK preprod

- Differences between FBK data at Room T and CACTUS data at LN2 (in this way we reduce fluctuations due to differences in room T here in Ferrara). Distribution width=150mV





# FBK preprod

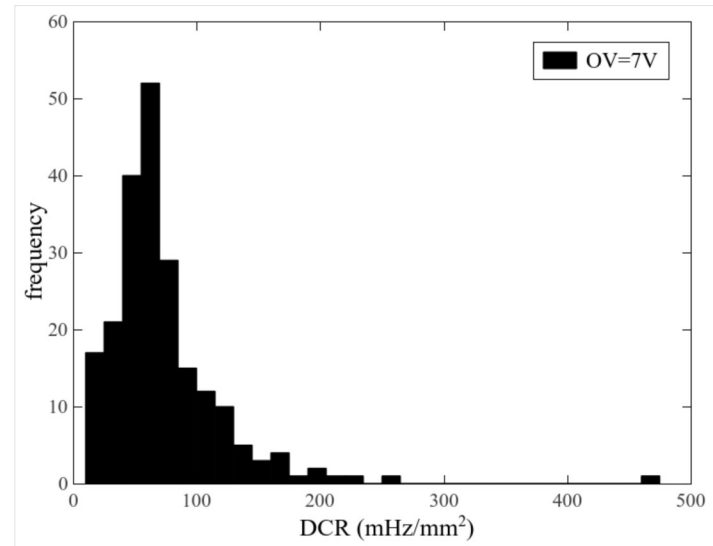


DCR:

OV=3.5 → all <200mHz/mm<sup>2</sup>

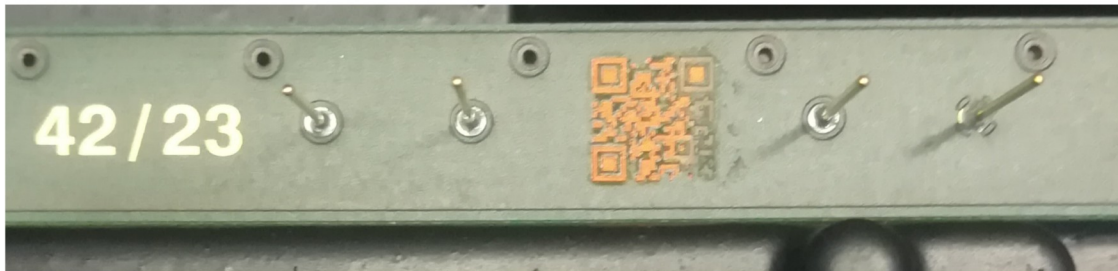
OV=4.5 (nominal operation) → all <200mHz/mm<sup>2</sup>

OV=7 → 4 sensor >200mHz/mm<sup>2</sup>  
(probably burst)



# FBK preprod

- There are still problems with the QR print:



In 13 strips (on 50 total), part of the QR code is not well printed: in some case it is not possible to read it with the QR scanner.

# Conclusions

- FBK data only at Room Temp.
  - FBK only few data points per SiPM
  - Good agreement between FBK and cactus data
  - DCR ok
  - QR print not well readable
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- Send back to Antonio @ Madrid in the next shipment