

The 192Ch-GBP under X-ray

A complete set of six sensors has been tested.

192Ch-GBP sensors

6 PCBs are available in Padova (*three groups of two cards each*)

Wuppertal:
W1 and W2

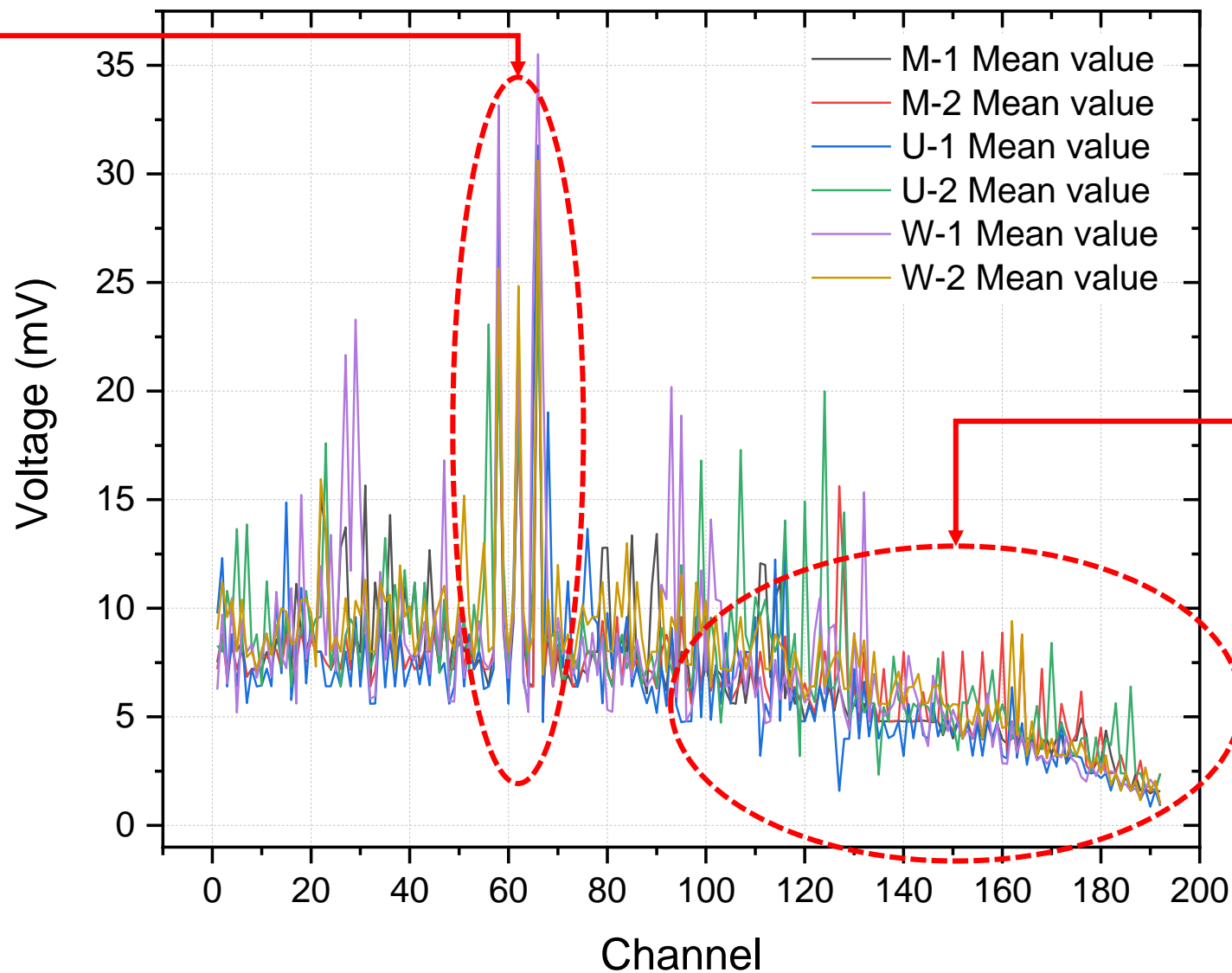
University:
U1 and U2

Monocrystal:
M1 and M2

The response of ^{192}Ch -GBP-W2 under X-ray irradiation

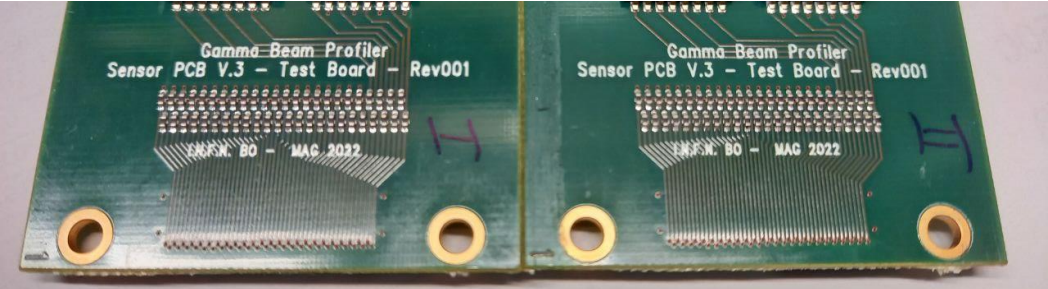
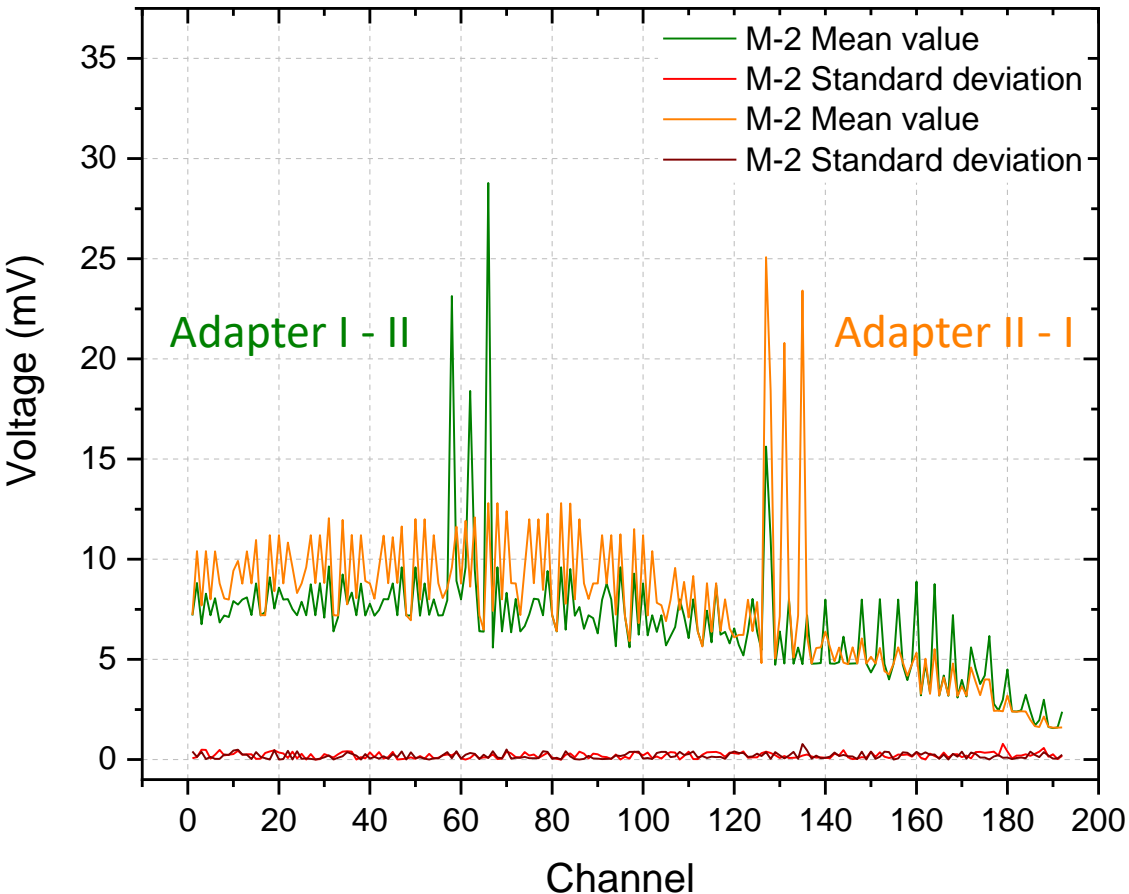
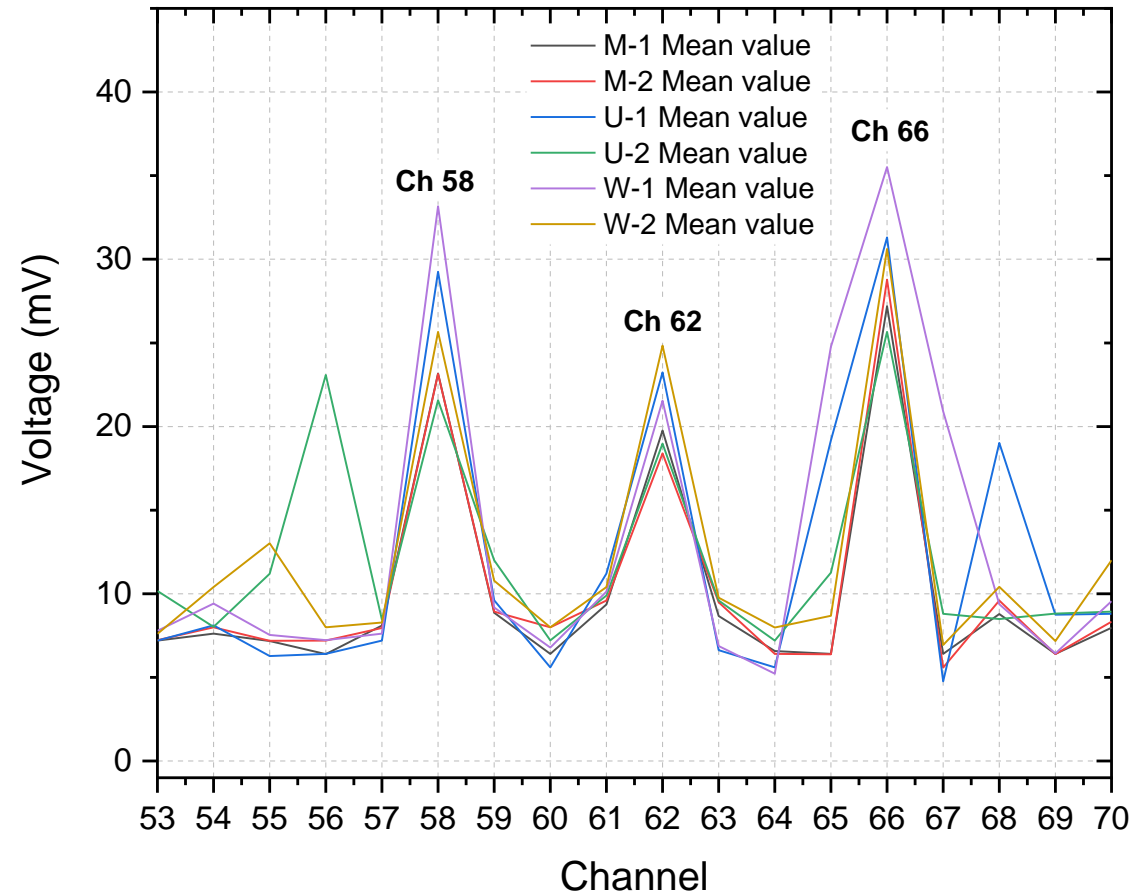
X-ray (W) tube: $U = 40 \text{ kV}$, $I = 50 \text{ mA}$; HV bias = 500 V

Peaks repetition



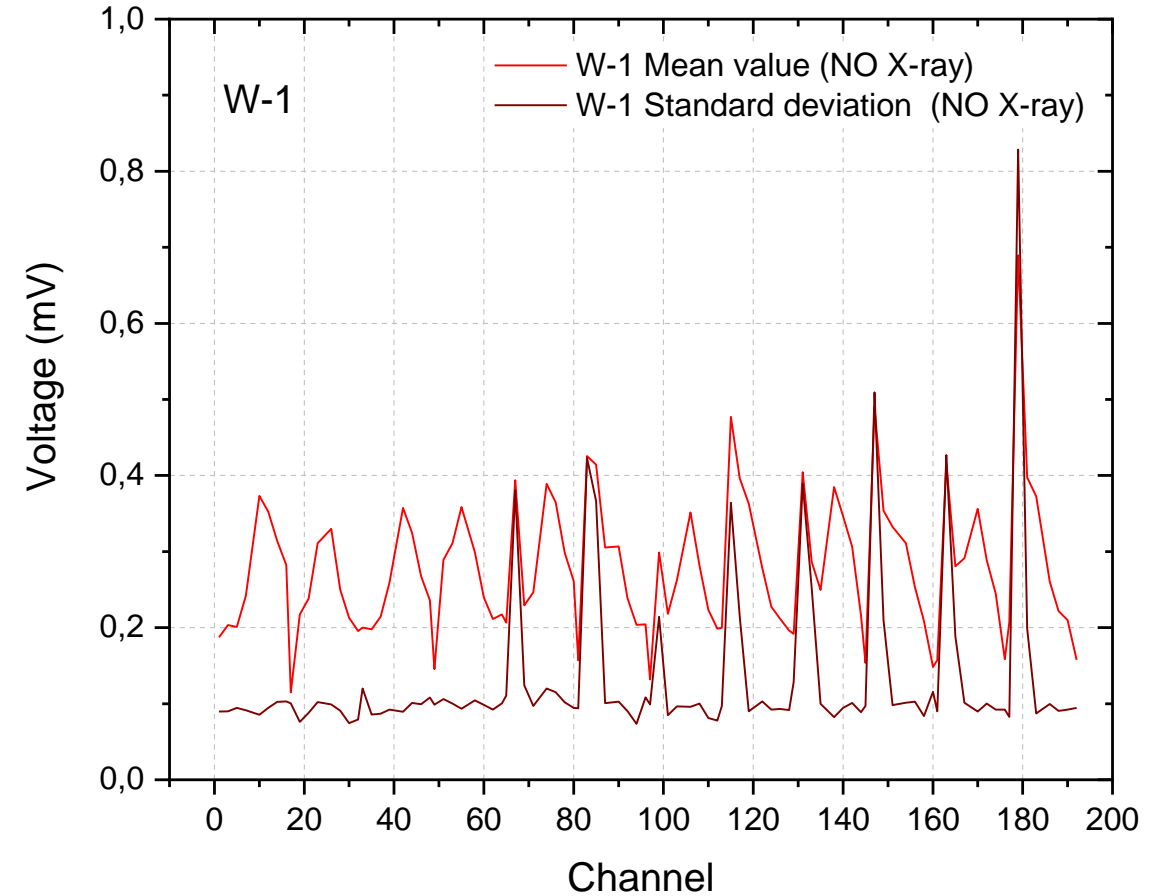
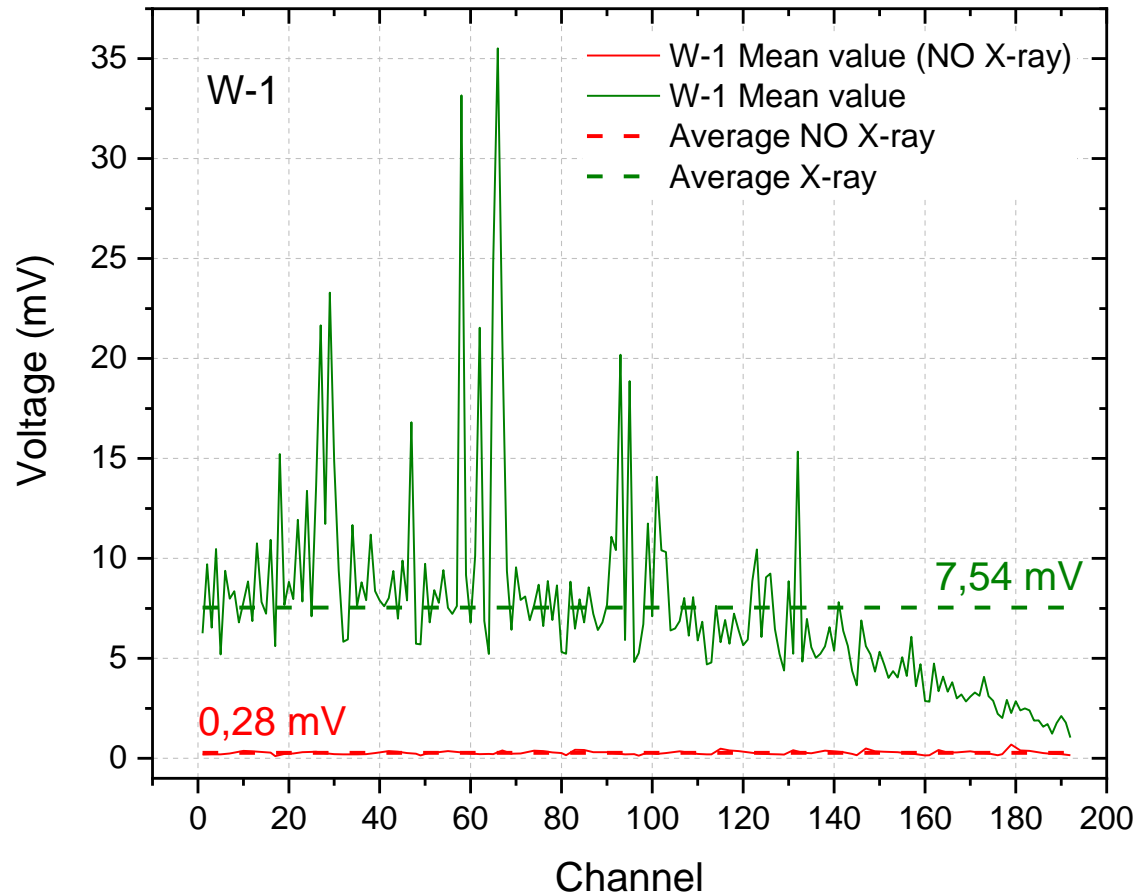
Slope

The peaks repetition



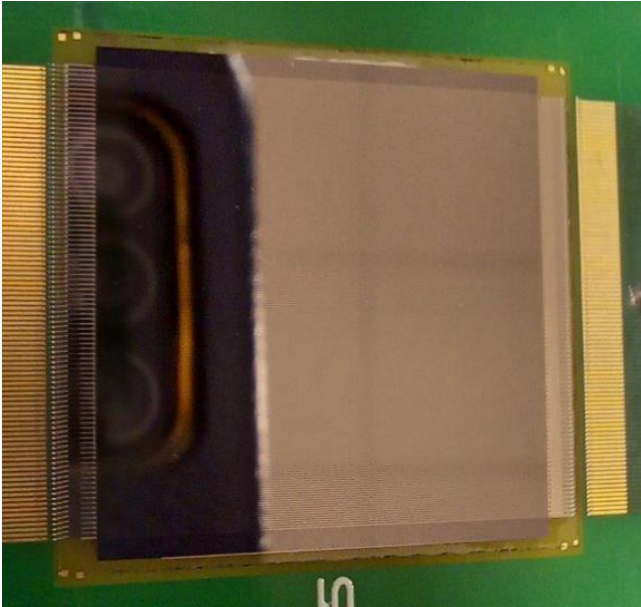
The GBP voltage output under X-ray

X-ray (W) tube: $U = 40 \text{ kV}$, $I = 50 \text{ mA}$; HV bias = 500 V

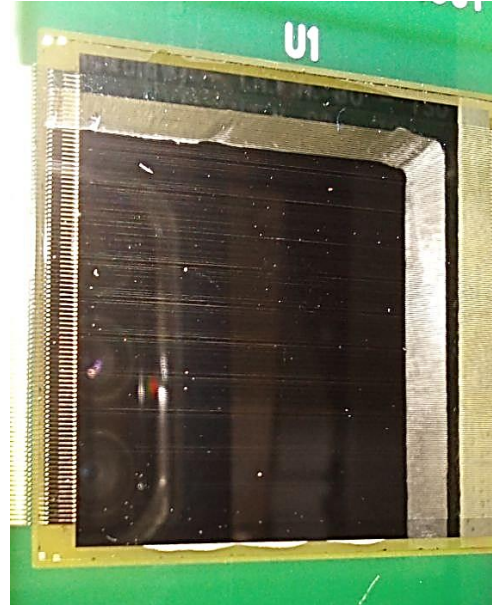


The surface condition after tests

Initial



After the X-ray tests



The alternating dark and white lines appear, which coincide with the location of the strips after the X-ray treatment. The line's pitch is not regular and large than the pitch of the GBP stripes.

- The surface change has been observed for all six sensors.
- The surface condition depends on the radiation exposure time.
- Additional radiation damage tests are needed.