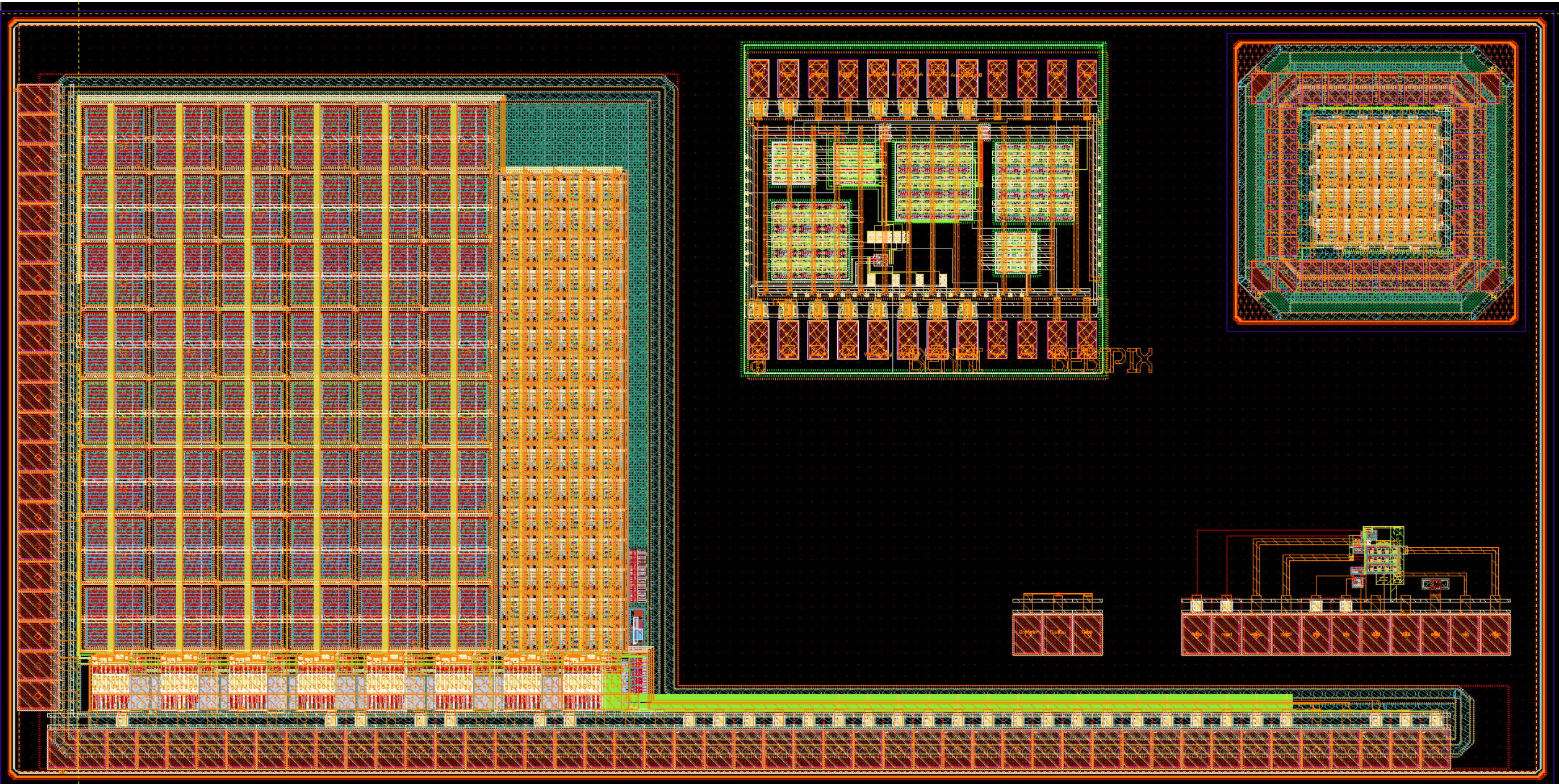
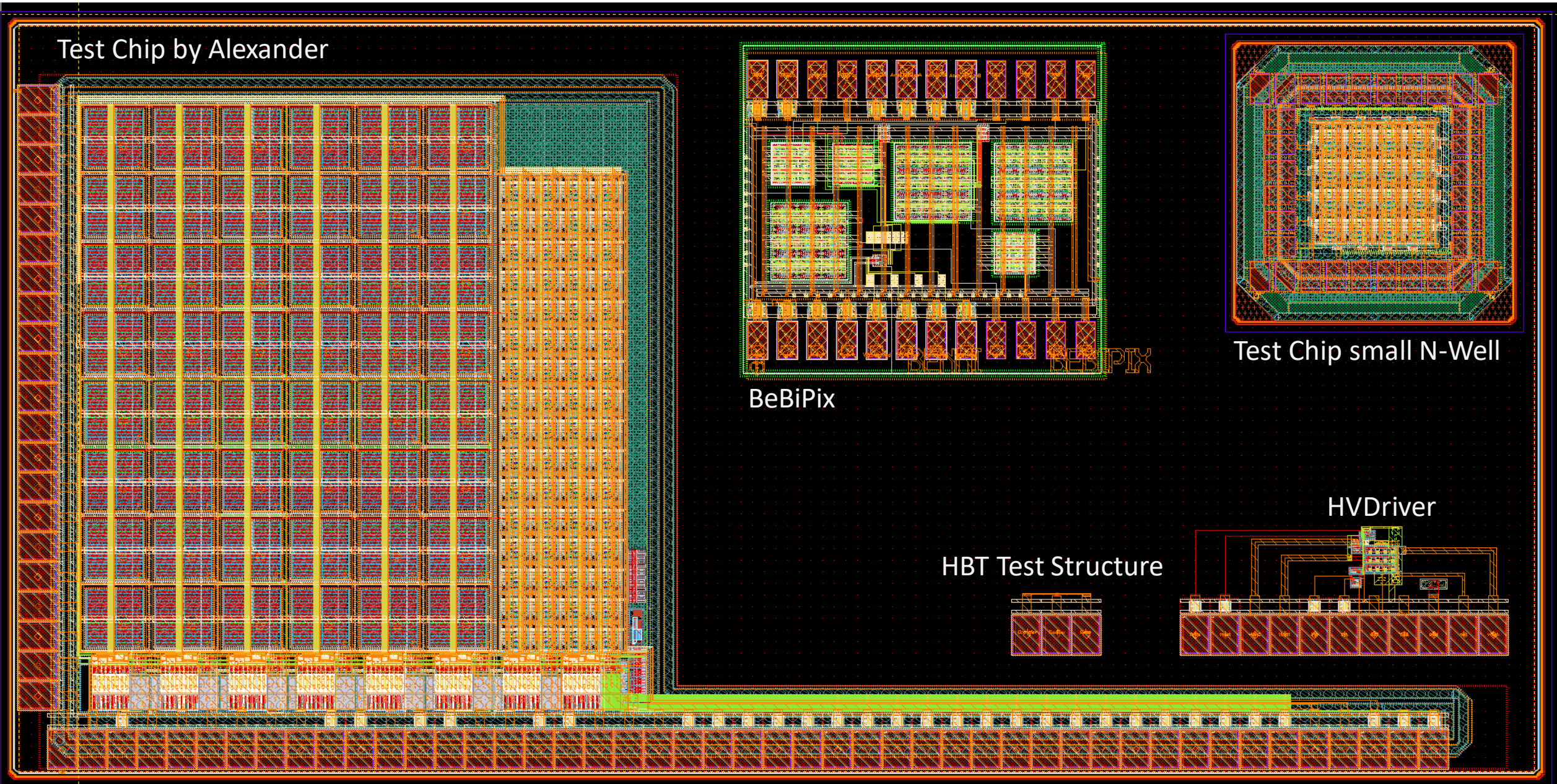

BEPIX


Test Chip by Alexander
BeBiPix
Test Chip small N-Well
HVDriver
HBT Test Structure

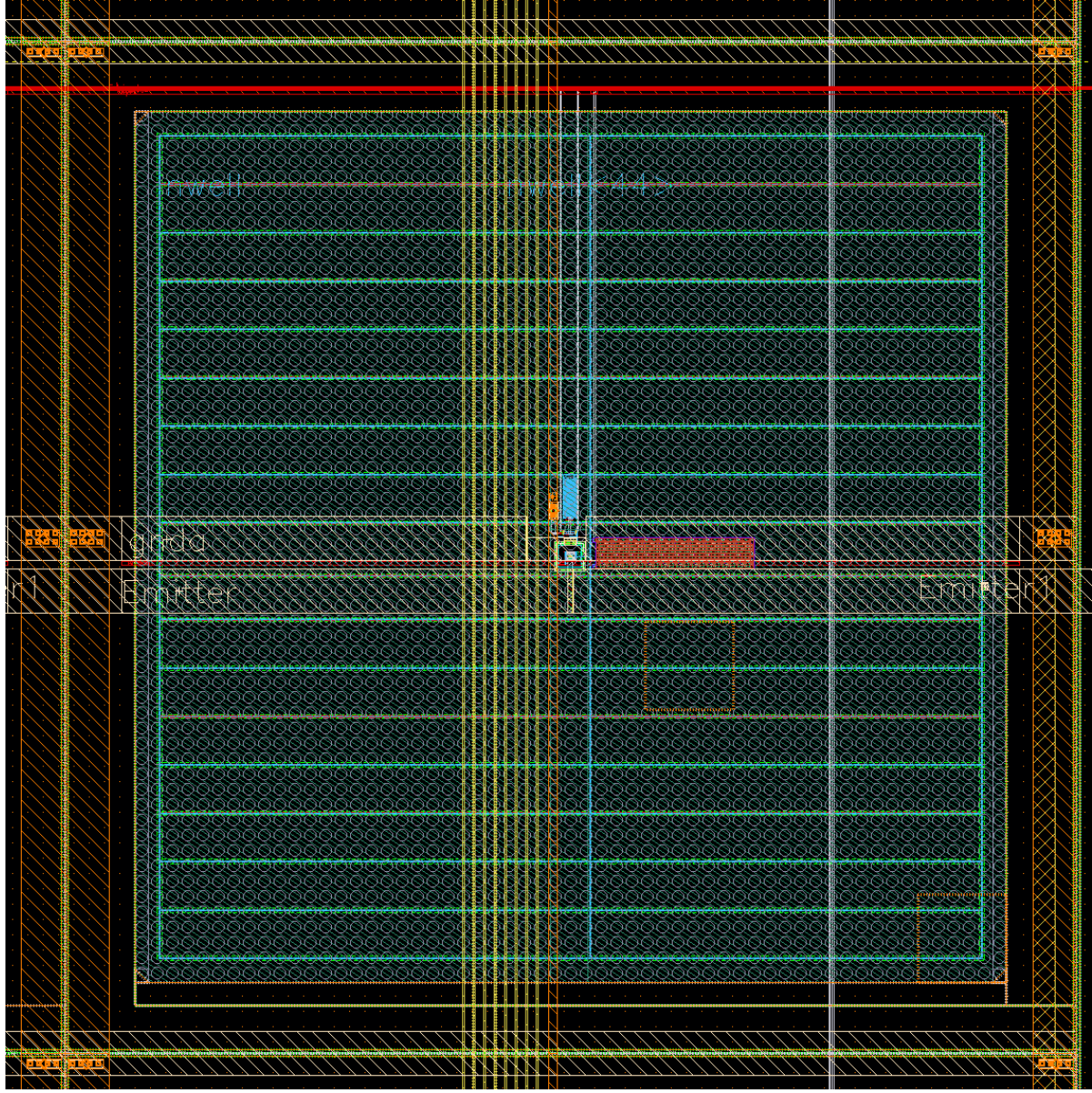
Test Chip by Alexander

2 Pixel design:

- Single HBT in Pixel
- 6×8 large n-well pixels $230 \times 230\ um^2$
- 4×4 small n-well pixels $100 \times 100 um^2$

Periphery:

- Amplifier, Comparator, TDC
- Shift Register, Bandgap



Test Chip by Alexander

2 Pixel design:

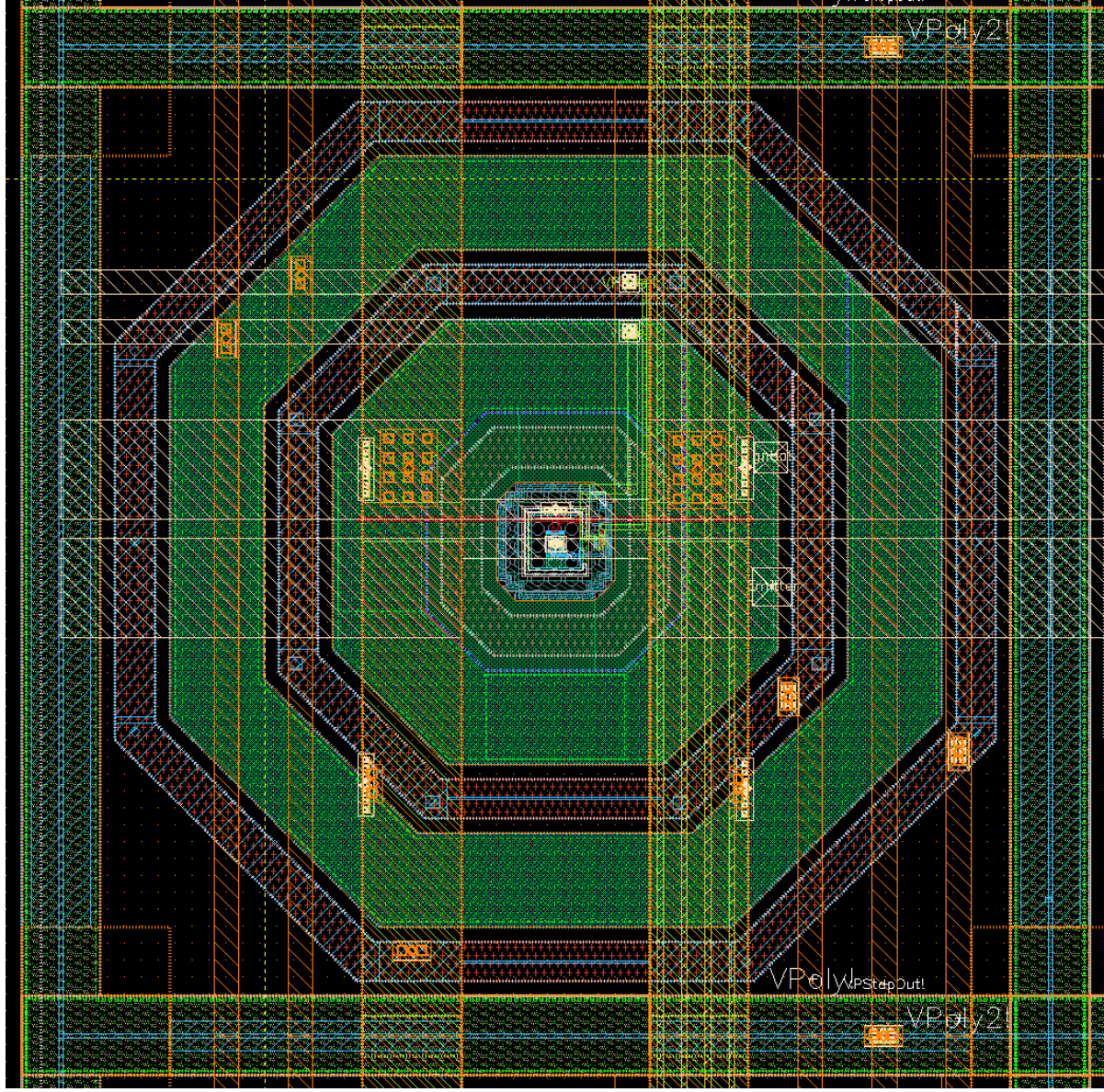
- Single HBT in Pixel
- 6×8 large n-well pixels $230 \times 230\ um^2$
- 4×4 small n-well pixels $100 \times 100 um^2$

Periphery:

- Amplifier, Comparator, TDC
- DACs, Shift Register, Bandgap

Test Chip with small N-Well

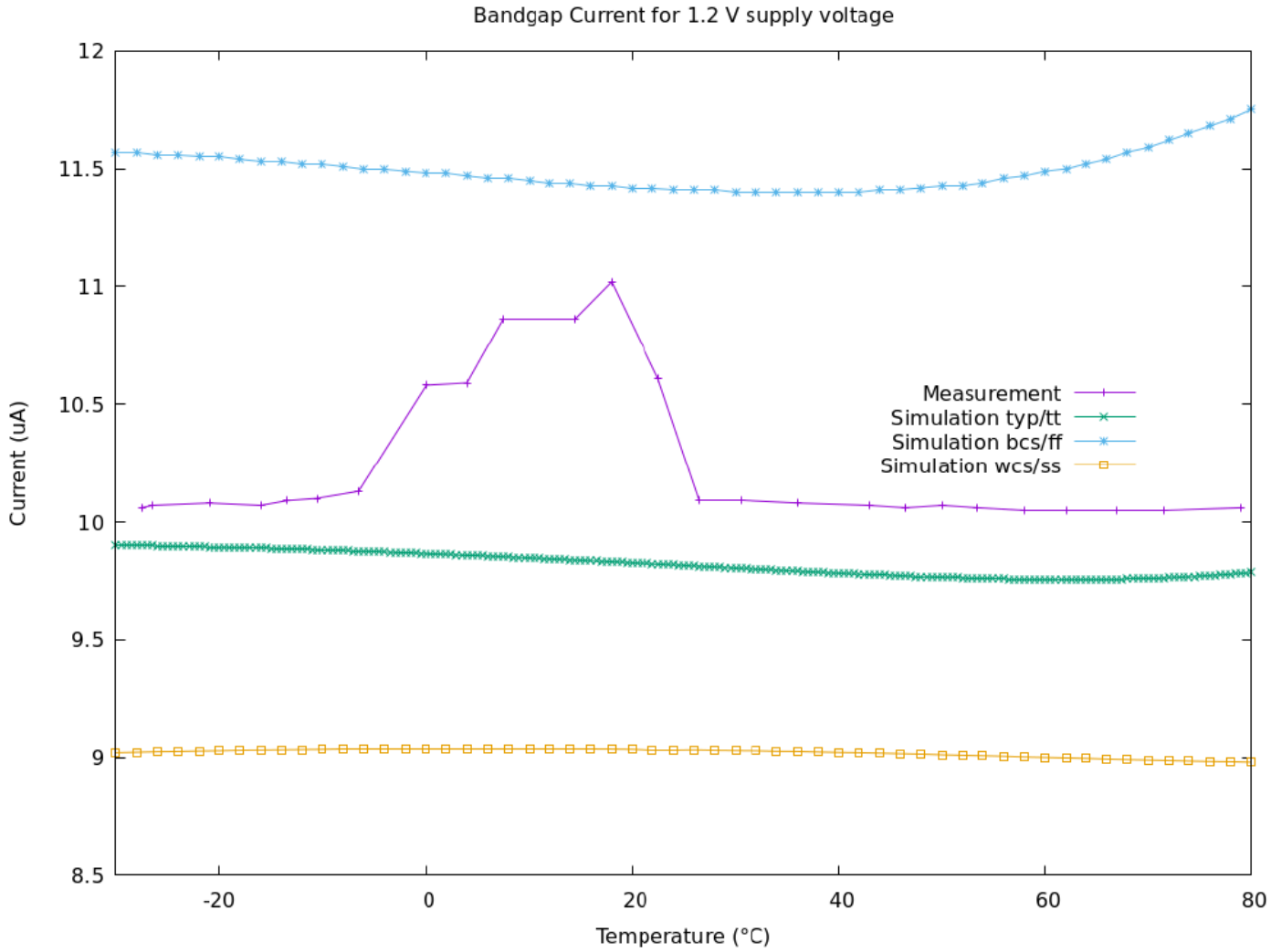
- Similar pixel layout -> analog output



Bandgap Measurements

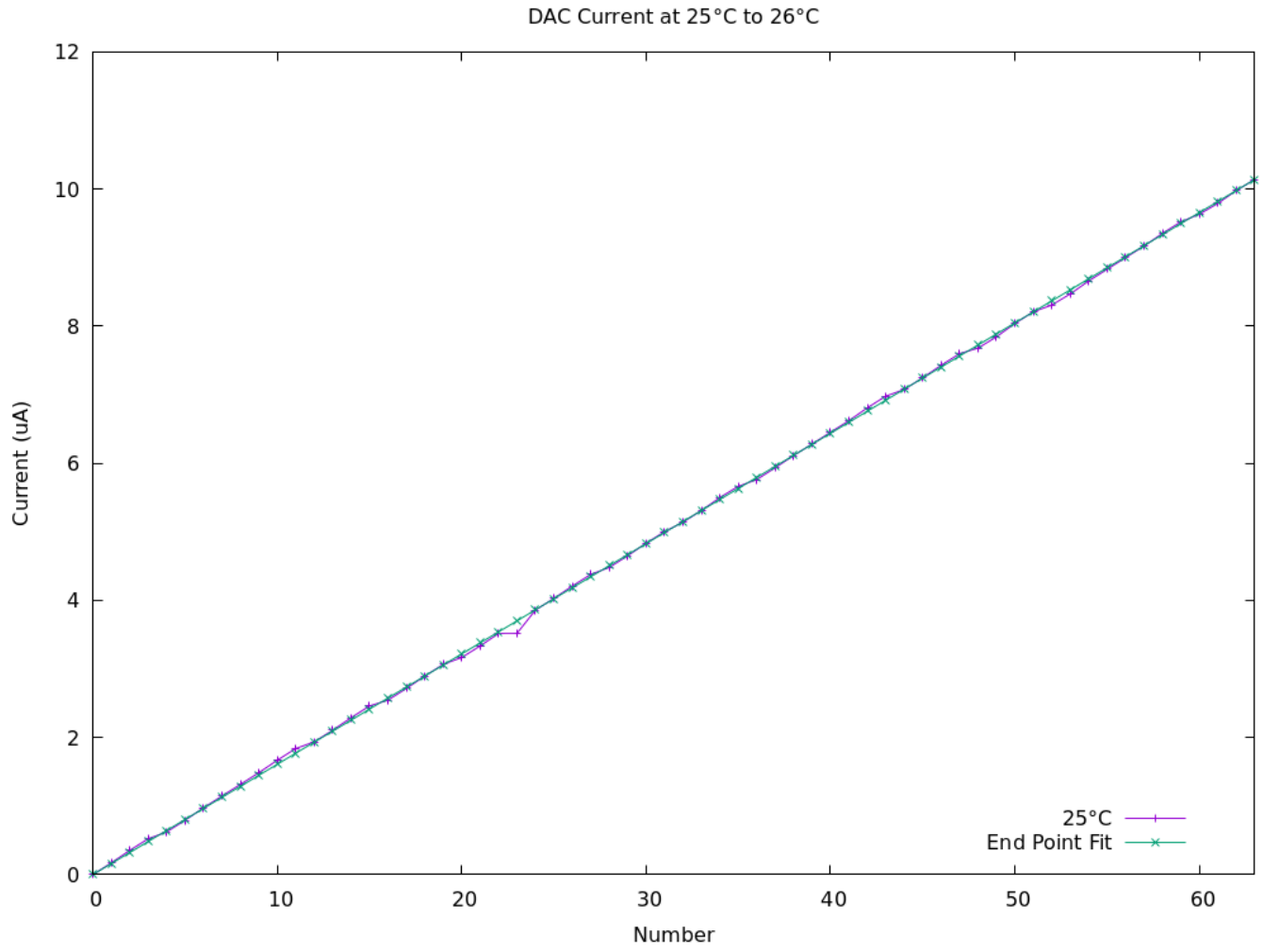
- First measurements show interesting (not expected) feature
- Chip needs to be configured

- Not perfect to observe irradiation effects



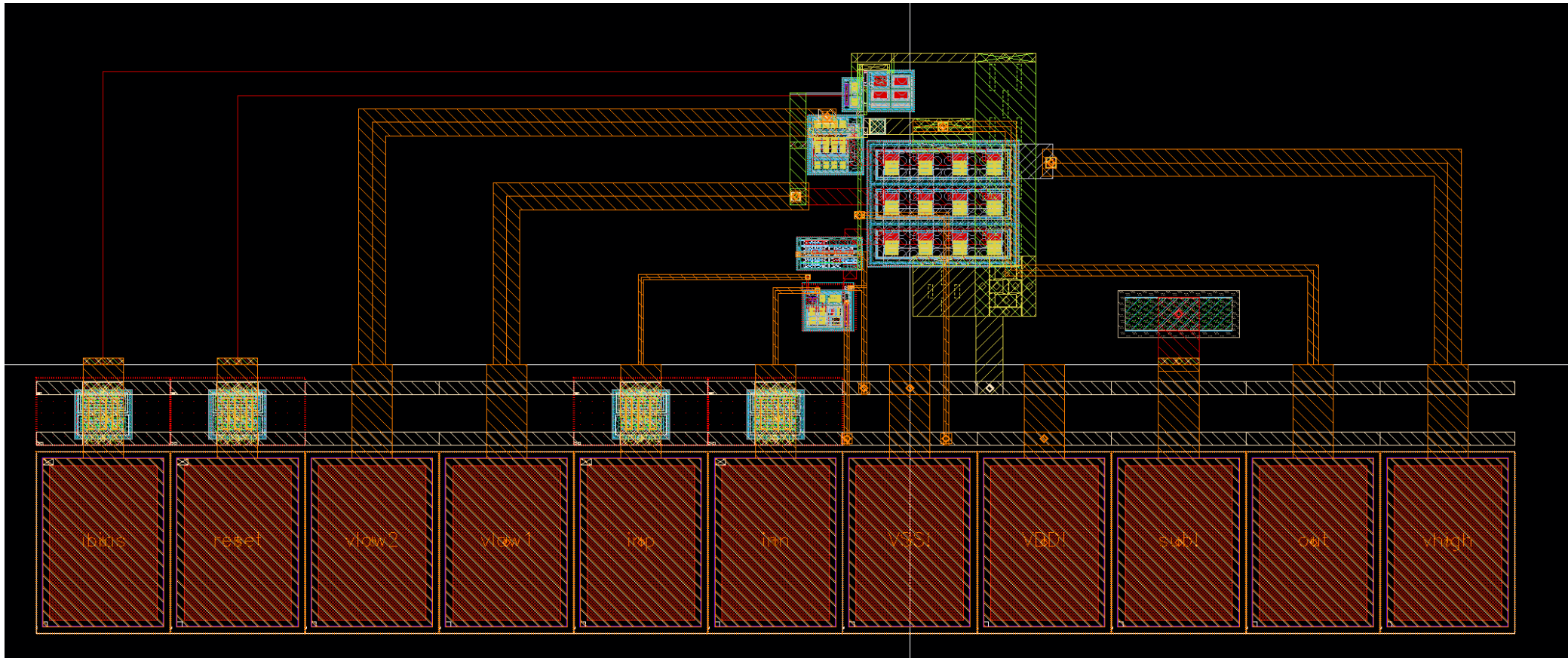
DAC Measurements

- Chip needs to be configured
- DAC shows (expected) linear dependency



HVDriver

- Pure CMOS logic
- No characterisation done yet



HBT Test Structure

- Single bipolar transistor
- Easy to access

