

Detector integration

Proposal by Yan

hypothesis

- 15 layer detector
- 500 μm Si sensors, $\sim 90 \times 90 \text{ mm}^2$, $\sim 5 \times 5 \text{ mm}^2$ pads
- Tungsten planes have a flatness less than 100 μm

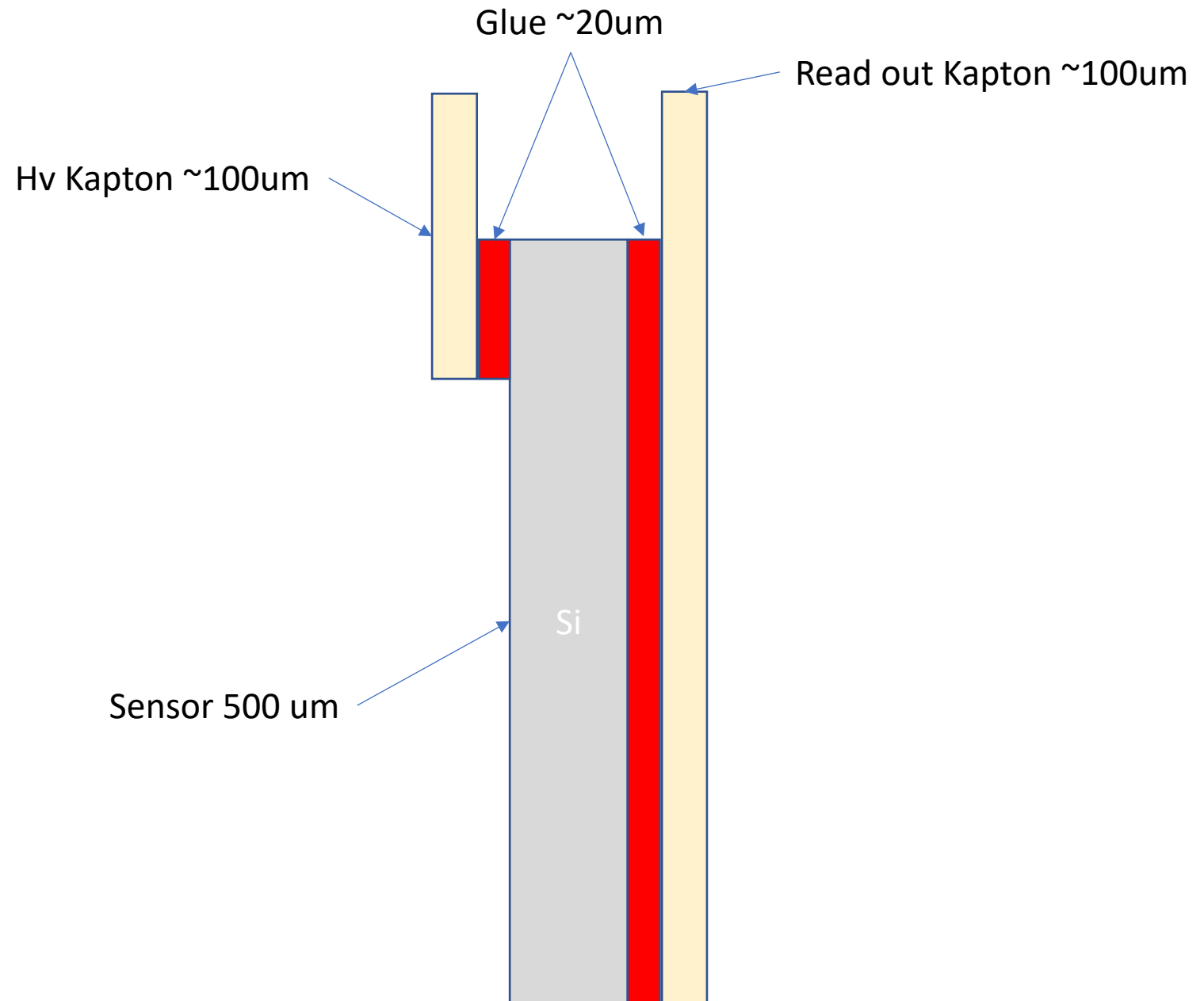
sensors

- Readout : using flex pcb which is glued on the sensor. On top of the flex, a dedicated connector (after agreement with Marek/Jakub). The sensor is fully connected
- HV : a flex pcb which will be glued (maybe partially) on the back of the sensor (the connector will be decided after discussion with Marek/Jakub)

FEB boards (proposition to be discussed with Marek/Jakub)

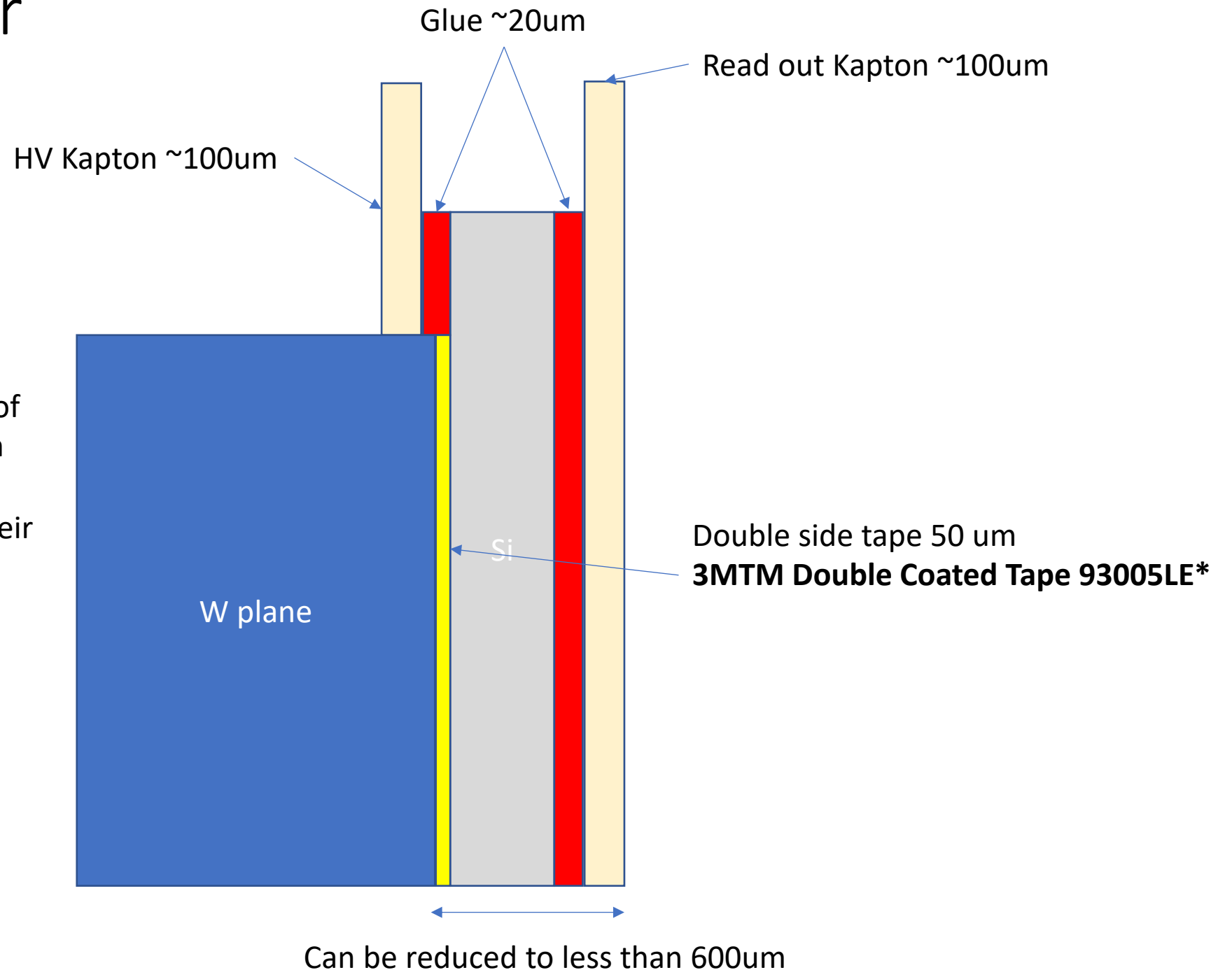
- One FEB board will be connected to one sensor
- Size needs to be discussed
- Thickness needs to be discuss asap so we will be able to start the mechanical design

Sensor gluing



Gluing the sensor on the tungsten

If we can reduce the thickness of the gluing of the sensor, we can release the planarity of the tungsten planes ie, decrease their price



Frame : 15 vertical drawers

Each drawer contains:

- 6 or 7 sensors
- One tungsten plane
- FEBs

