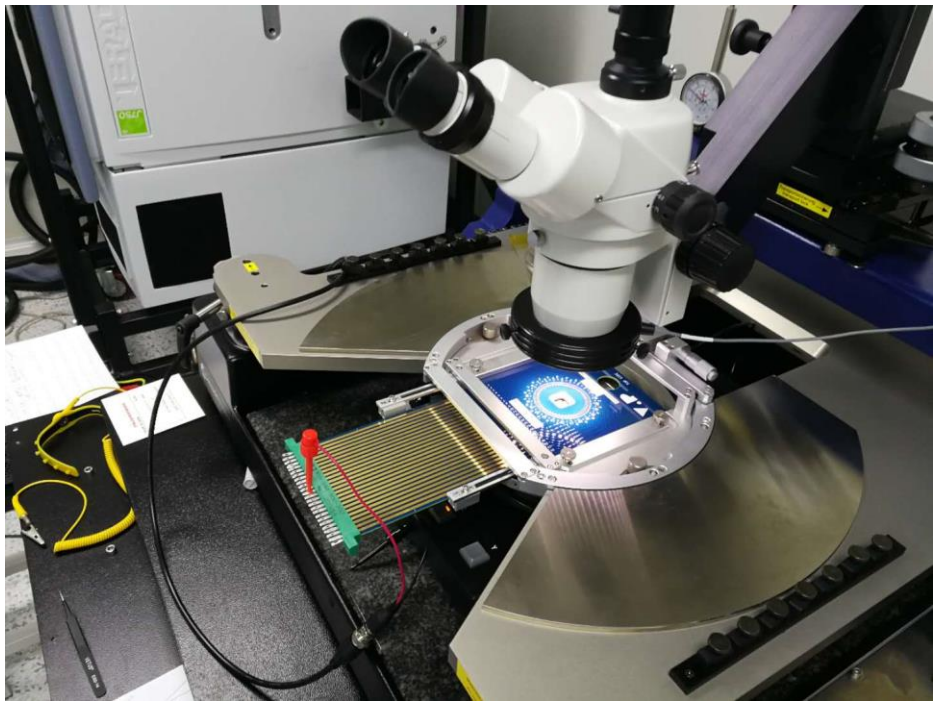
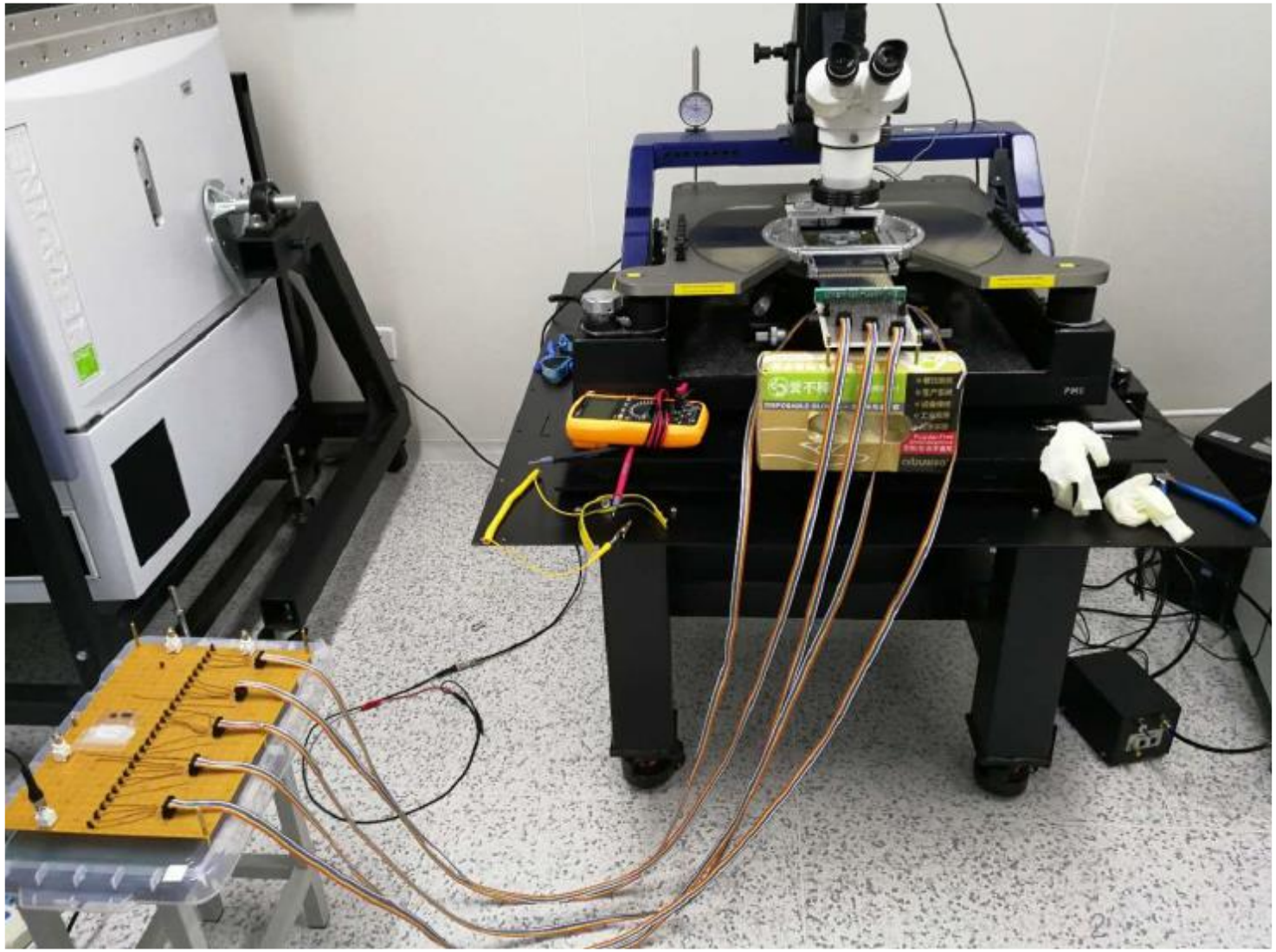
About the array test using a probe card

06/10/2019

Pictures : testing 5x5 with probe card





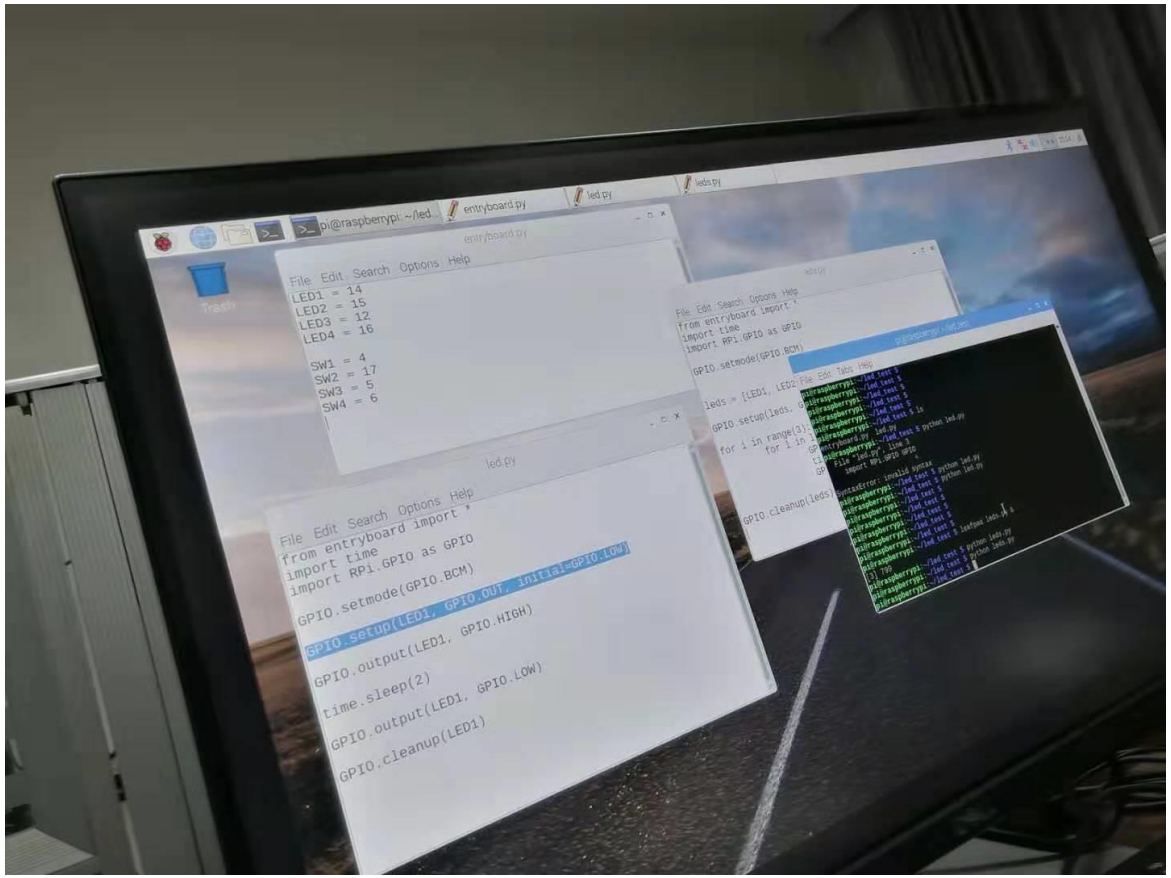
Status

- Testing array LGADs, especially 5x5, we have used a probe card to attach all of pads at the same time.
- So far, we have successfully measured I-V on several types. One issue here would be that the probe card can fit to the probe station belonging to the “electric group” .
- It took more than 5 hours, depends on the sensor’s break down voltage, to finish the scan for a sensor. If we are going to test 15x15 arrays in future (if a new probe card is available), that’s would be much harder.
- We have considered alternative solution to develop a channel switcher controlled remotely from a PC.

Status -- an investigation for the switcher --

-- Current fluctuation level was O(several*10)pA as seen in the photo.
==> this level is acceptable for test with the probe card.

Fig : Since a resistor of 1MΩ is inserted, 1V/1MΩ = 0.01 μA is the nominal current.



Raspberian Desktop

Comments

・ If the total amount of arrays is small , current “manual” way would be find for testing I-V at room temperature.

・ As the next step for the switcher, we need to design a prototype and test it.

・ Further comments/suggestions are appreciated !