



# First results of testing SwicherB



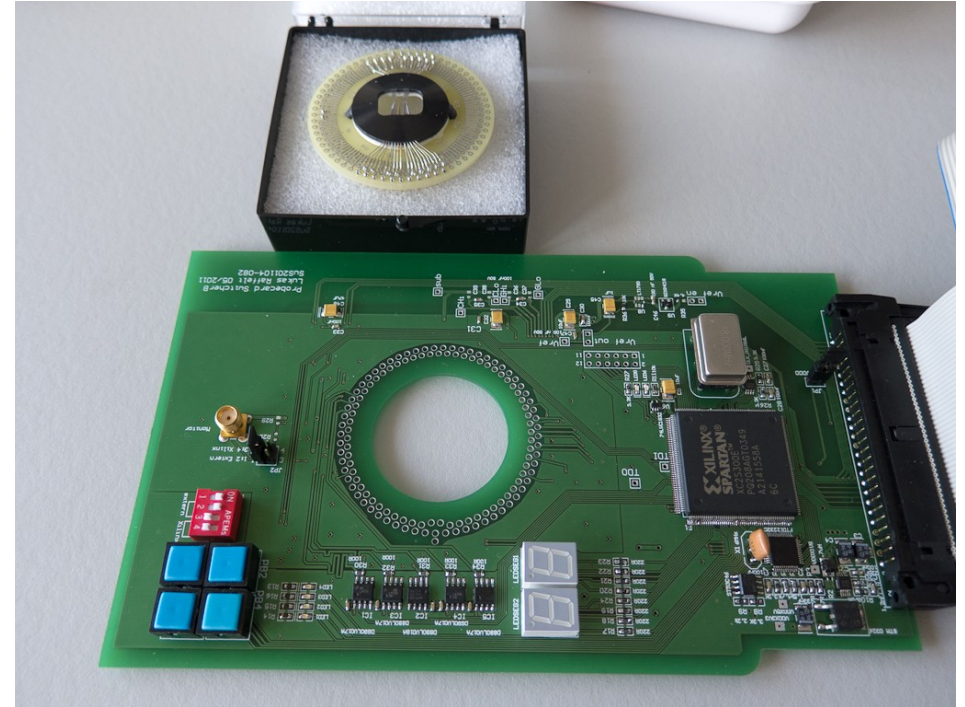
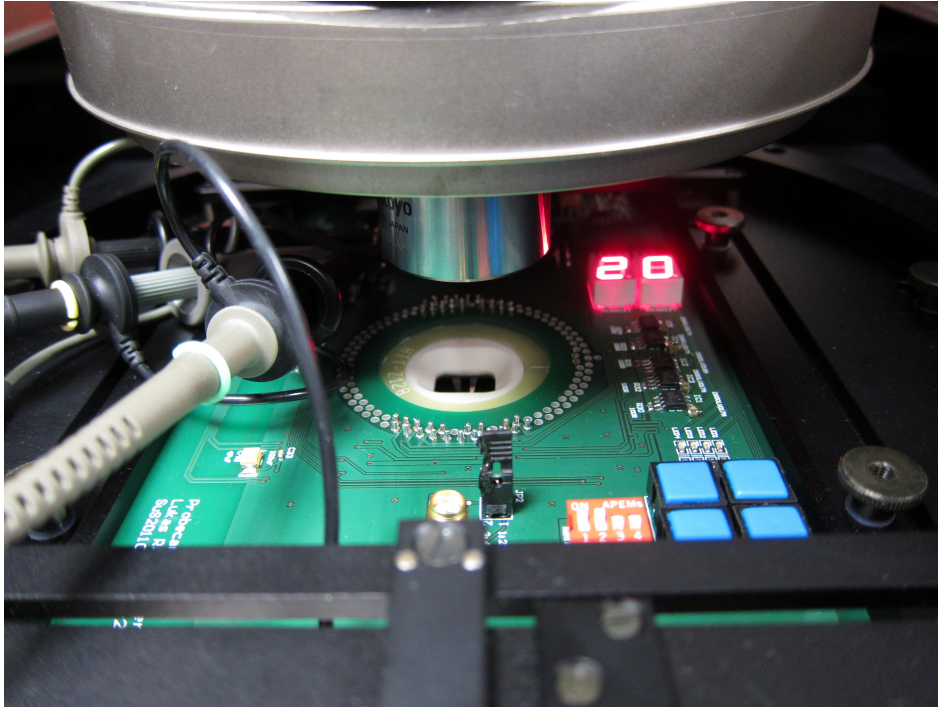
Lukas Raffelt

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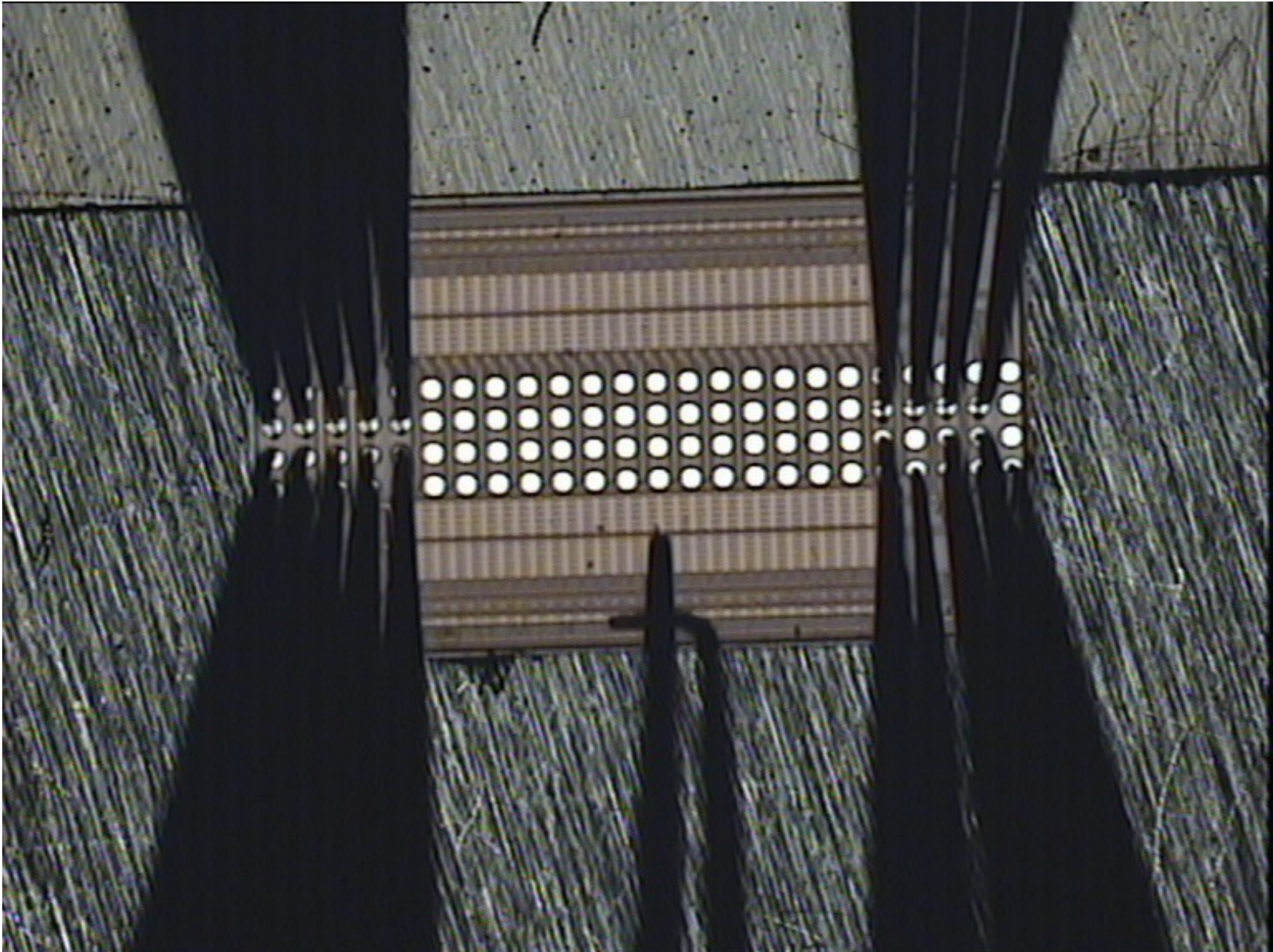
Mannheim

25th July 2011

# Probecard PCB with FPGA

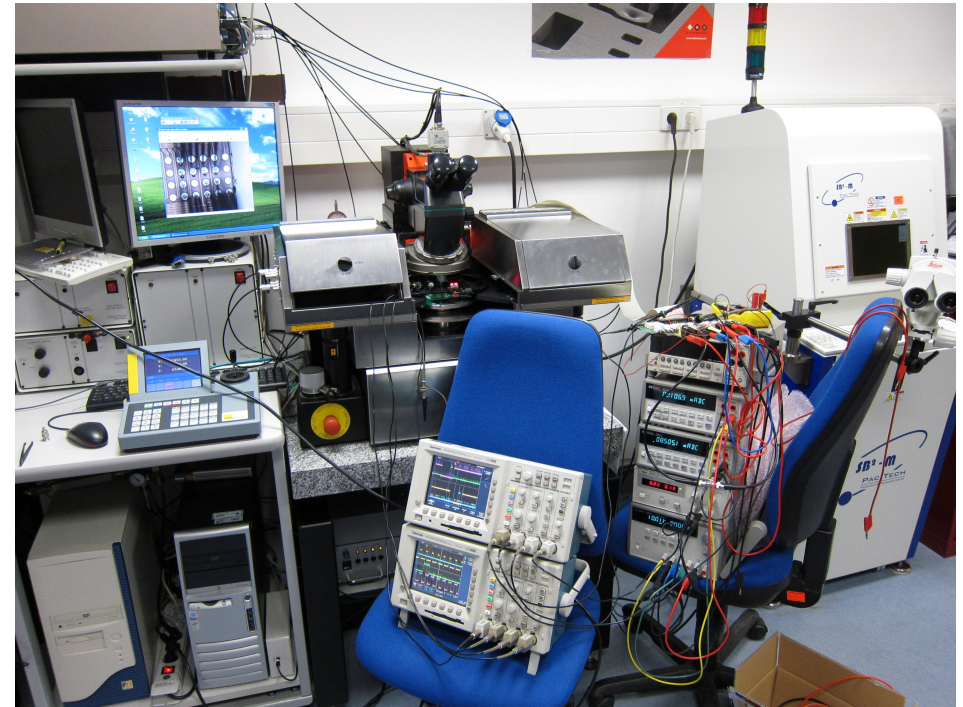


# Chiptesting SwitcherB



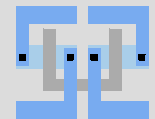
# Chiptesting SwitcherB

- Direct chiptesting is working
- Some contact-resistance problems solved by cleaning
- Operated at  $\mu\text{s}$ -level because of PCB limitations
- Full JTAG functionality tested
- Normal operating mode tested in two configurations (overlapping and non-overlapping)



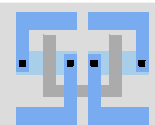
# Results of SwitcherB chiptests

- 2 Sets of Switcherchips: bare chips and chips with goldstuds
- Out of 12 bare chips all 12 are working (100% yield)
  - With goldstuds full test still ok for all 12 chips
  - 2 chips show some unexpected behavior in overlapping mode (under investigation)
- Out of 13 chips with goldstuds 11 are working (85% yield)
  - 1 chip has too high current and no response via JTAG or normal mode
  - 1 chip is poorly working in automatic mode (slow and noisy), only some JTAG modes work
- Caution: low statistics



## Future plans

- New probecard capable of connecting to new 1.8V SwitcherB already ordered
- New epoxy-needle-ring to test flipped SwitcherB ready at the institute
- New probecard can test 1.8V and 3.3V SwitcherB in 3 configurations: bare chips, with goldstuds and flipped



Thank you!