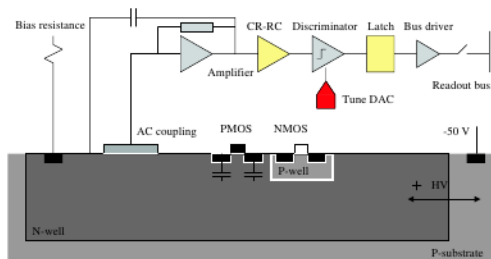


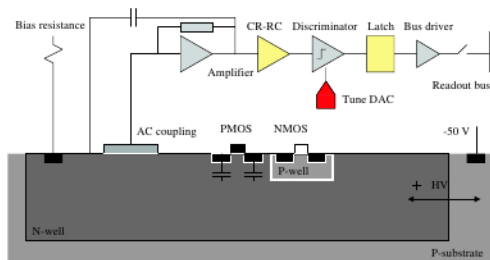
# Update on hardware activities

Tobias Weber

11.09.2012

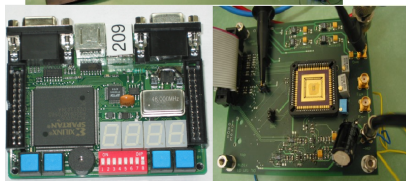
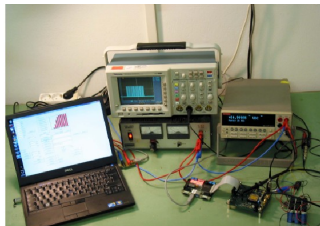


- ▶ high radiation tolerance
- ▶ fast charge collection
- ▶ thickness of 50  $\mu\text{m}$
- ▶ low power consumption



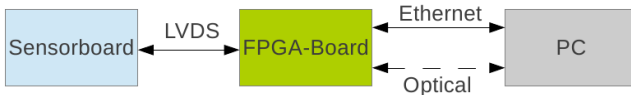
- ToT measurement
- self triggering (planned)
- readout frequency of 20-40 MHz (planned)

# HV-MAPs test @ Heidelberg



- ▶ data readout by FPGA-Board (Spartan 2)
- ▶ connection to PC via USB-Port

# HV-MAPs test @ Mainz



- ▶ start with boards developed at Heidelberg/Mannheim
- ▶ replace FPGA with ML605:
  - slowcontrol via ethernet
  - data transfer using optical link (SIS1100-Protocol)

Optical Connector



## Ethernet

- tri-speed ethernet interface (thanks to Simone Esch)
- UDP-Protocol implemented for sending data to PC
  - automatic calculation of IP-Header checksum
  - no checksum for UDP-data
- work on receiving of UDP-packets in progress

## Optical link

- connection between FPGA-board and pc
- first tests successful