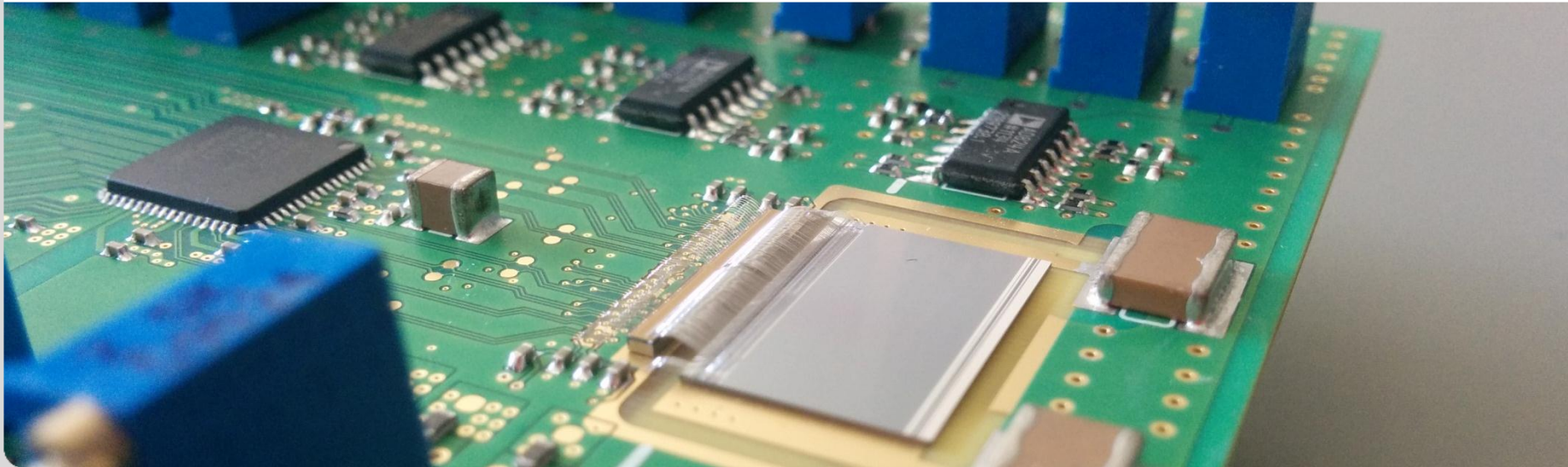


Status of the Ultra-Fast 1D Detector Development

L. Rota, M. Caselle, N. Hiller, P. Schoenfeldt, S. Walther

KIT, Institute for Data Processing and Electronics (IPE)



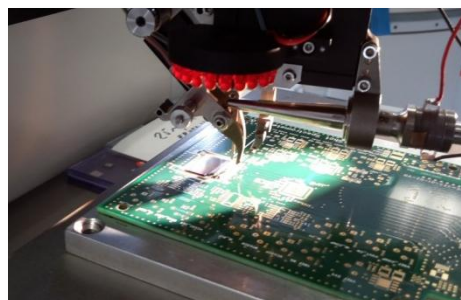
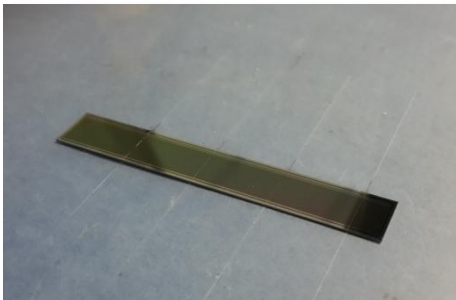
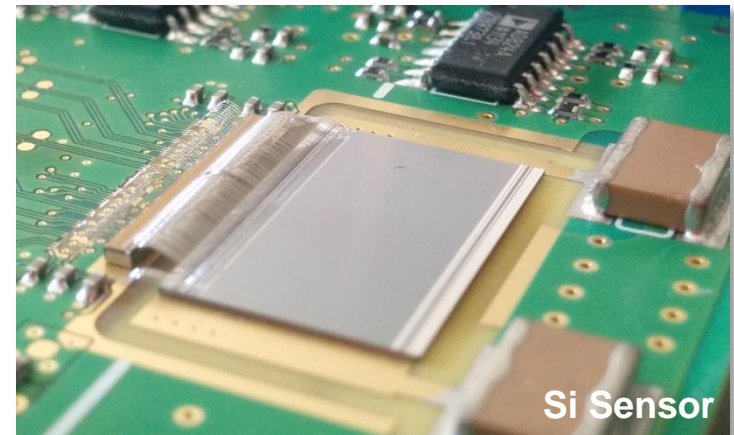
1 Mfops version: production status

Fully assembled:

- B0: Si-sensor (KIT) (tested)
- B1: InGaAs-sensor (KIT) (prel. test)
- B2: Si-sensor (DESY) (prel. test)

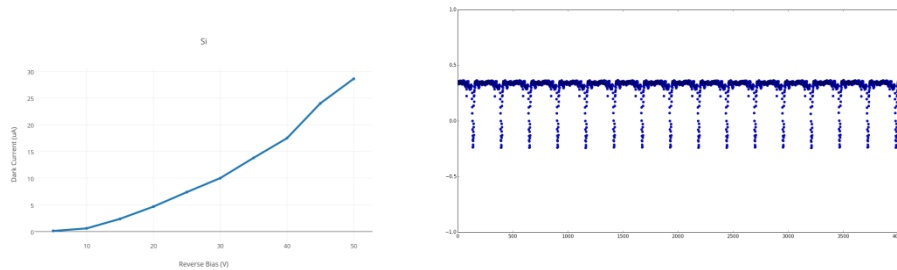
Under production:

- B3: InGaAs (DESY) GOTTHARDS glued
- B4: Si (ELBE) GOTTHARDS glued



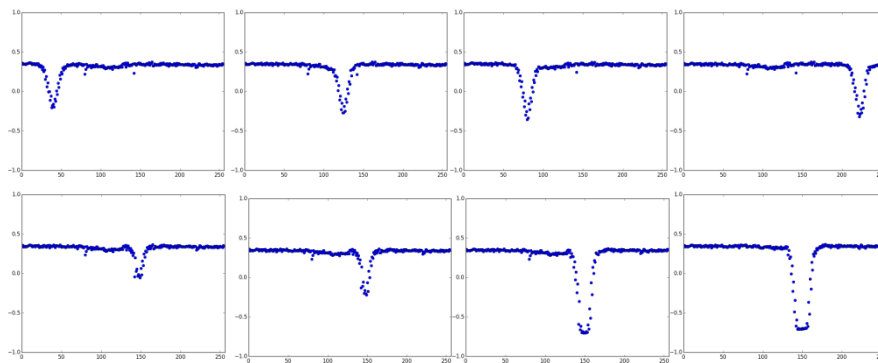
1 Mfps version: sensor characterization

Si sensor



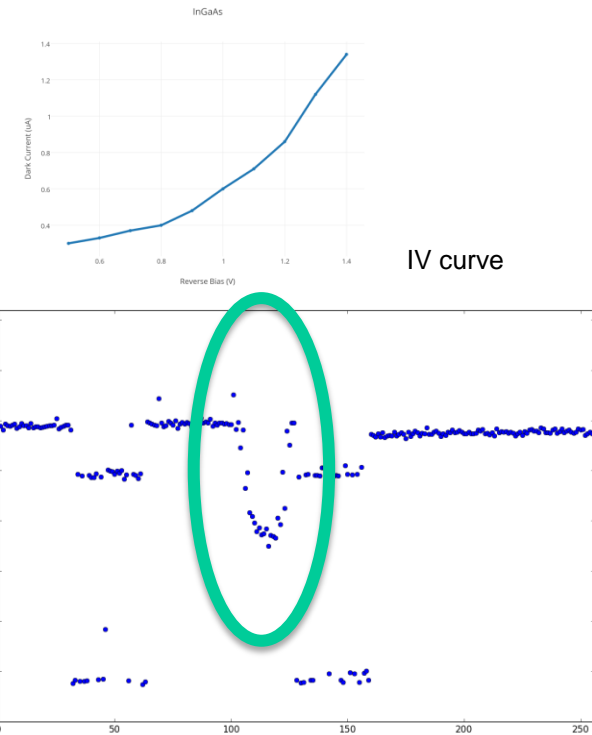
IV curve

Multiple pulses acquired



Pixel linearity, calibration, etc.

InGaAs sensor



IV curve

Laser signal **visible**, GOTTHARD chip is suitable for InGaAs sensors!

Towards 2.7 Mfps: next steps

- Test-board for GOTTHARD KIT-version: assembled
 - Only a ~20 pixels connected
 - Test basic functionalities, chip never tested before
- New PCB design for GOTTHARD KIT-version
- Start design after tests with current version

