

ATLAS

Level-1 Calorimeter Trigger Meeting

Stockholm 2002



PPrASIC and MCM status and test plans

First ASIC Tests

- Power
- Temperature

MCM

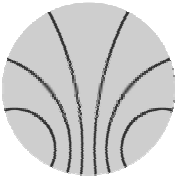
- Mounted MCM
- MCM-Test Parts
- Mounted MCM-Test Setup
- MCM status and test plans

ASIC

- ASIC-Test Parts
- Mounted ASIC-Test Setup
- ASIC-Test Installed
- ASIC test plans

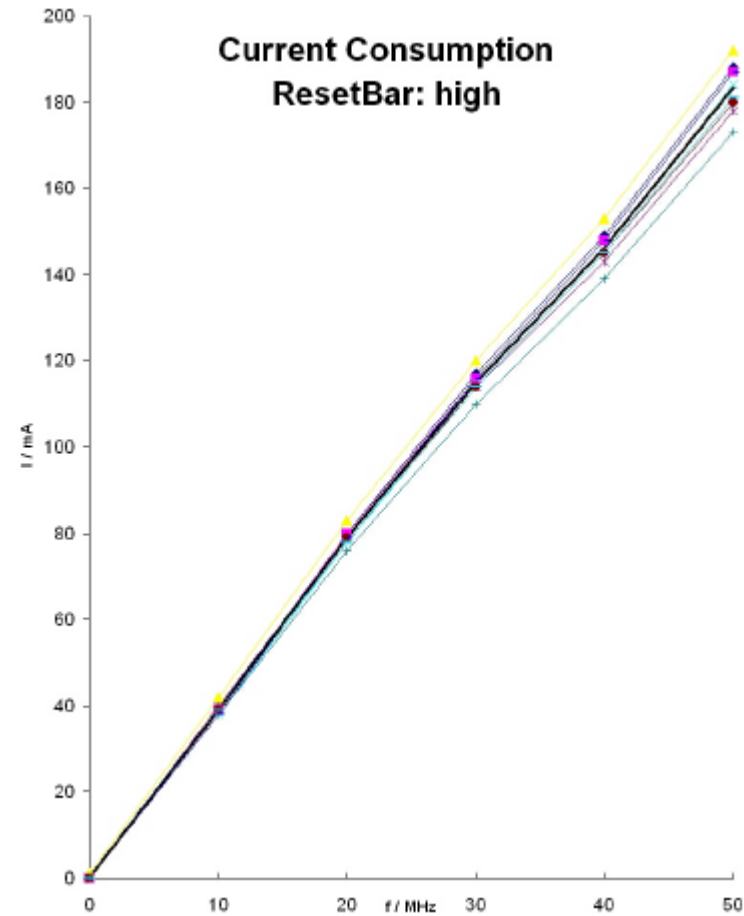
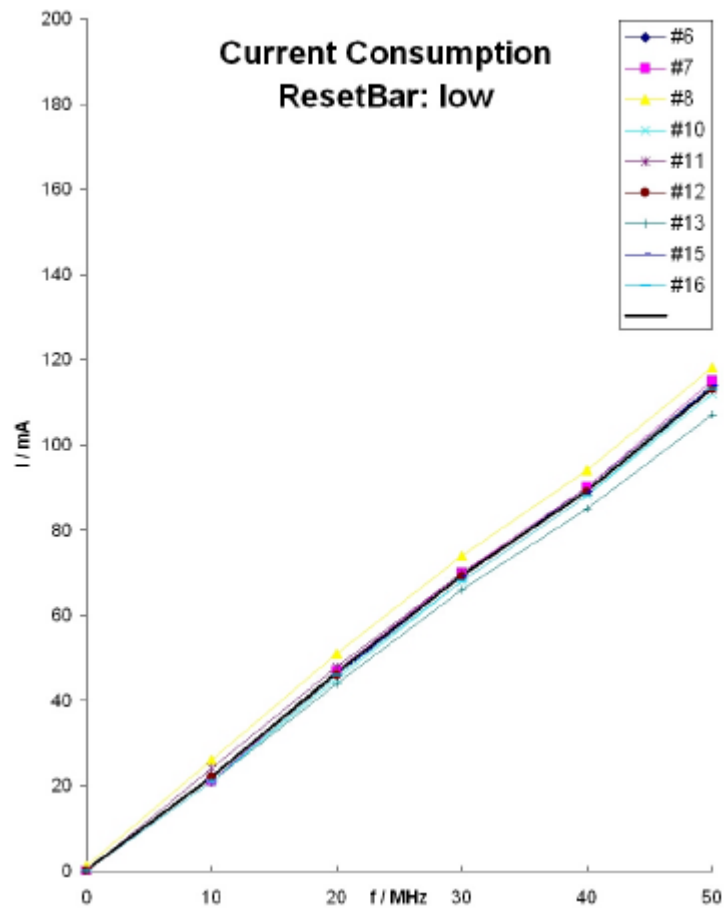
Outlook

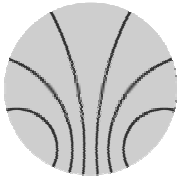
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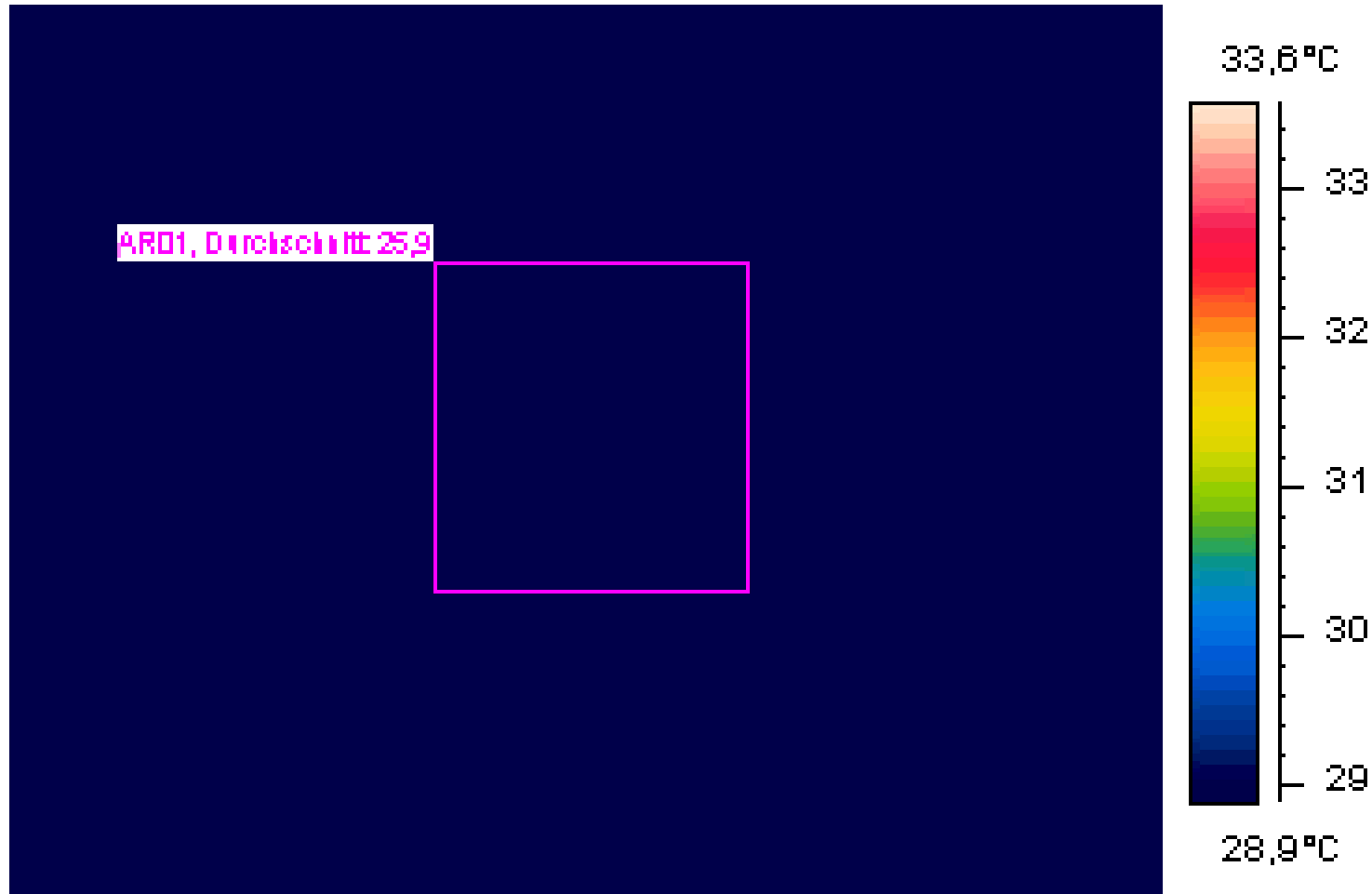
First ASIC Tests

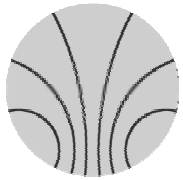
Power





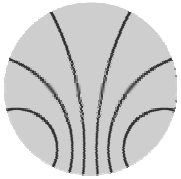
First ASIC Tests Temperature





First ASIC Tests Temperature



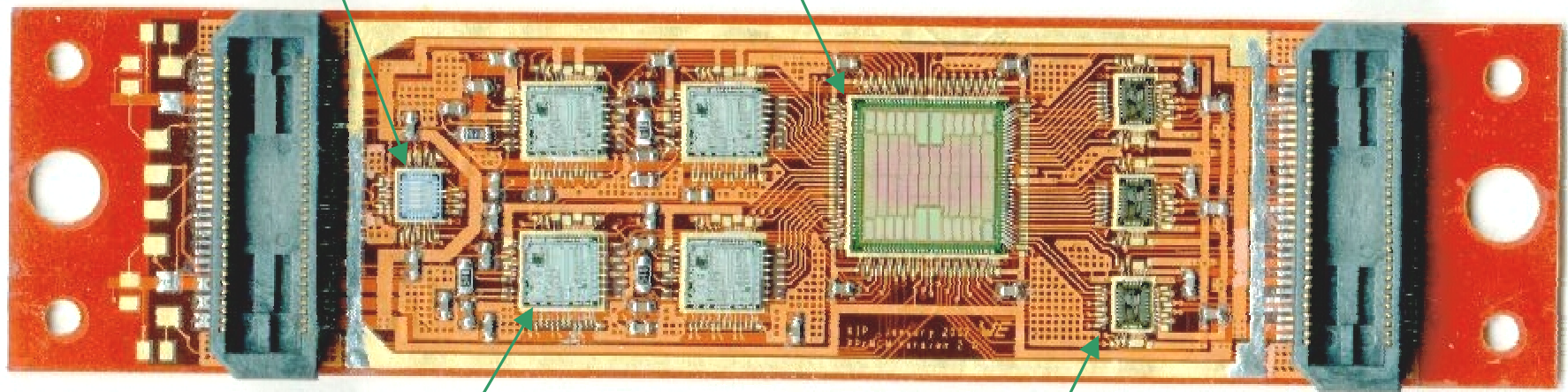


Mounted MCM



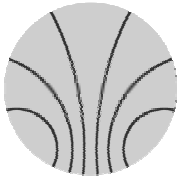
Phos4

PPrASIC

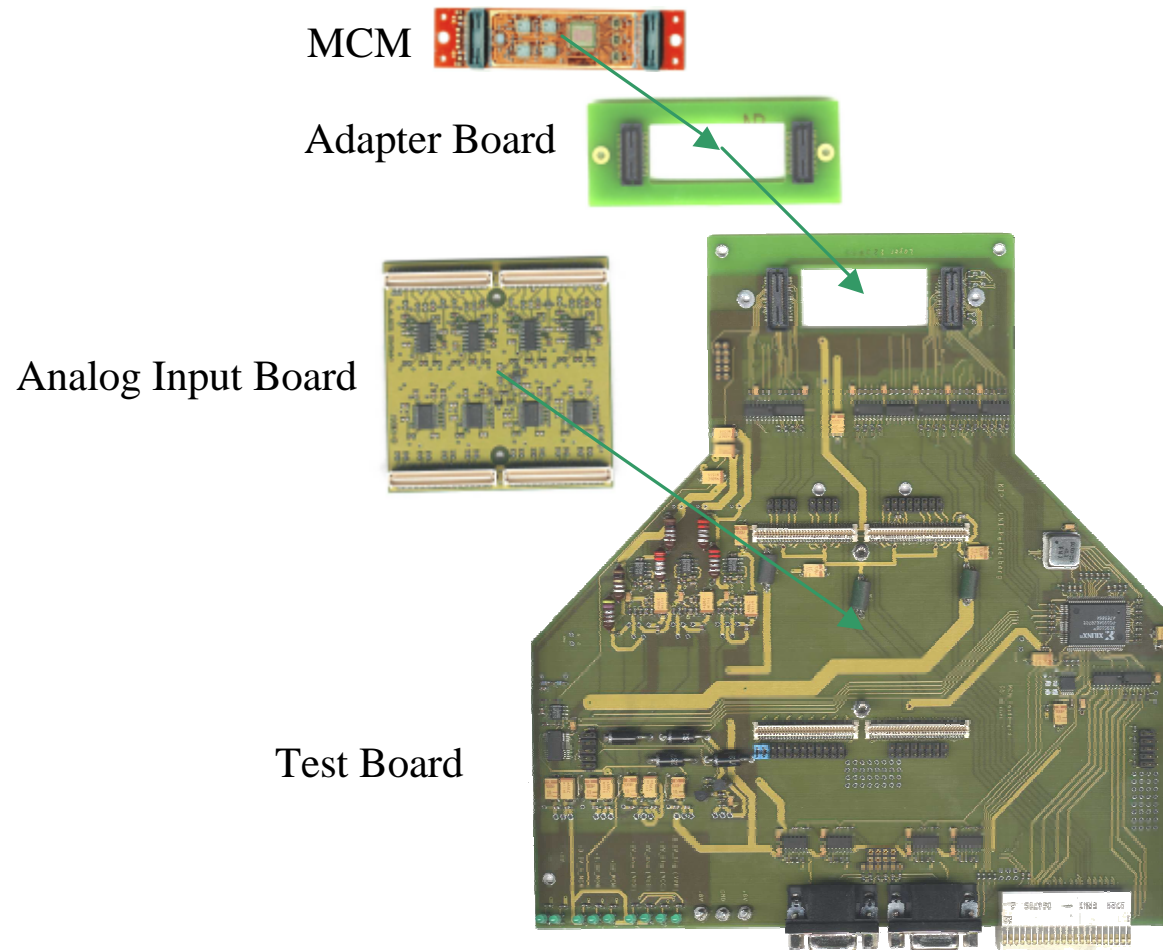


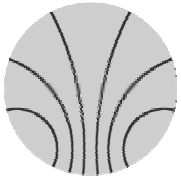
ADC

LVDS Serialiser

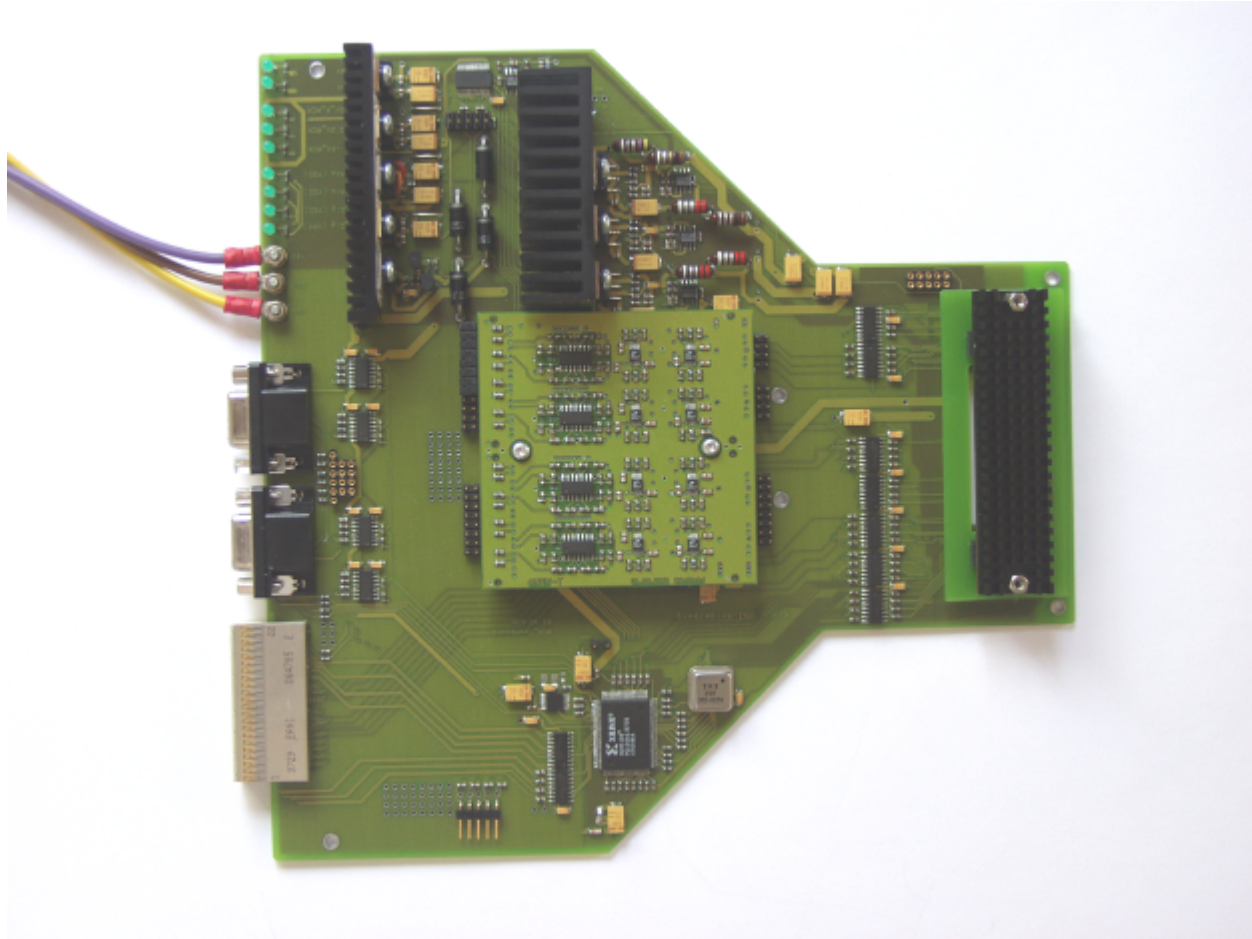


MCM-Test Parts

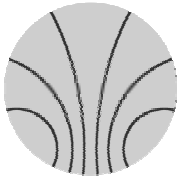




Mounted MCM-Test Board



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MCM Status and Test Plans



Temperature: $<60^{\circ}\text{C}$ @ Cooler, passive

Power consumption:

310mA @ $3.3\text{V}_{\text{digital}}$

450mA @ $5\text{V}_{\text{analog}}$ for ADCs

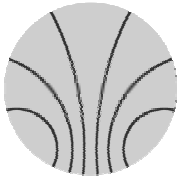
7mA @ $3.3\text{V}_{\text{analog}}$ for LVDS

Overall $\sim 3.3\text{W}$

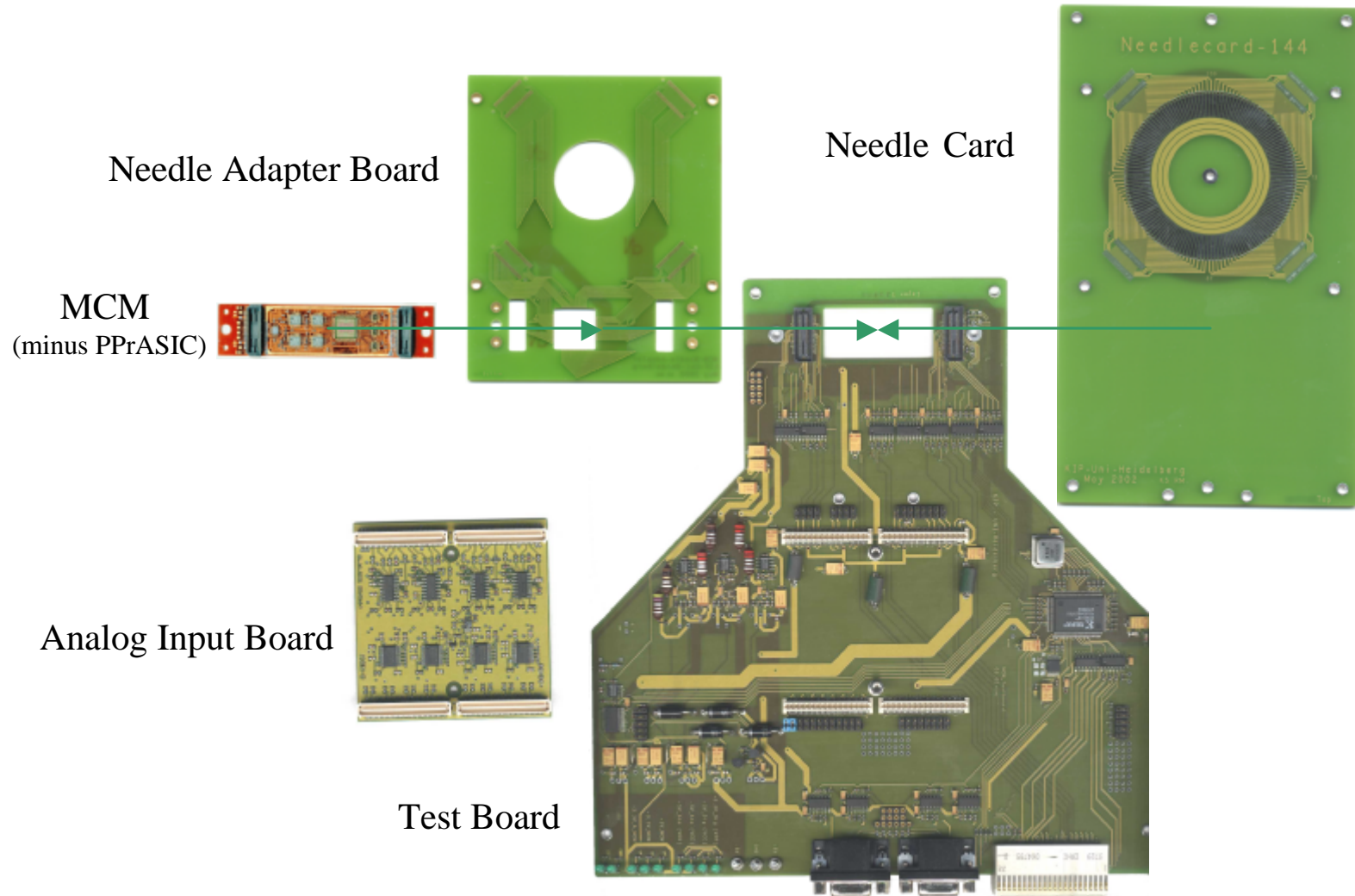
First signs of life of the MCM, see KPs talk

Next Steps:

- Mounting of a 2nd MCM, with the fast LVDS serialiser.
- Completing the minimum setup of the test system Software/Firmware
- Learn to understand MCM-output
- ...

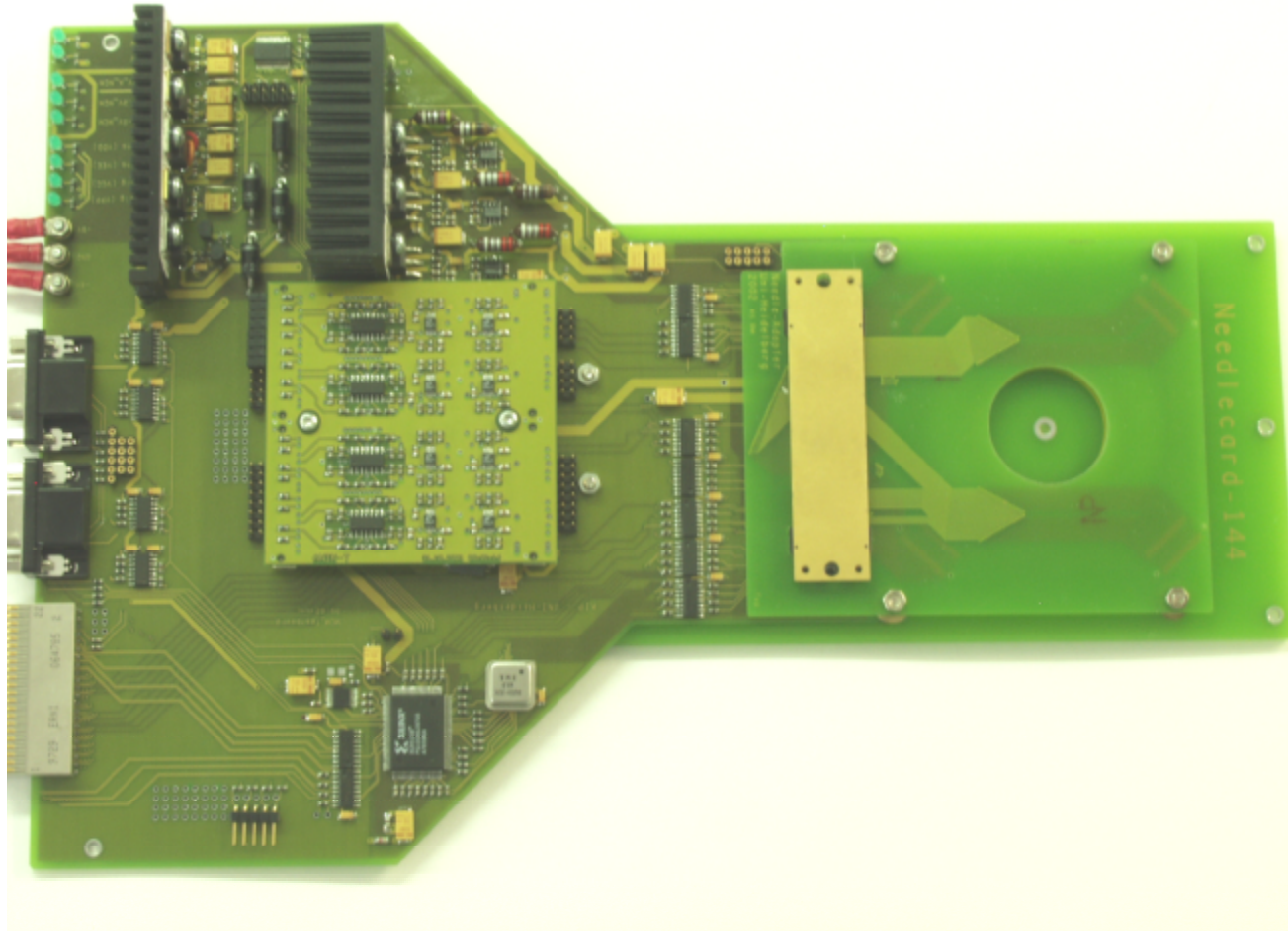


ASIC-Test Parts

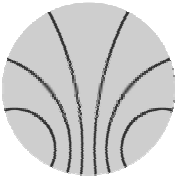




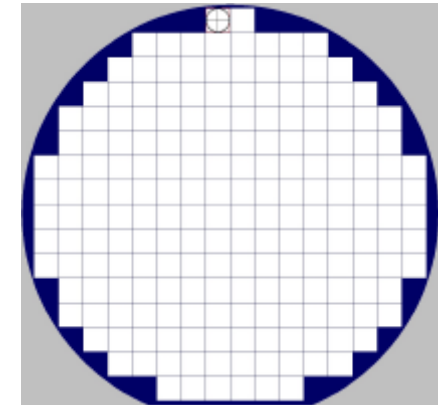
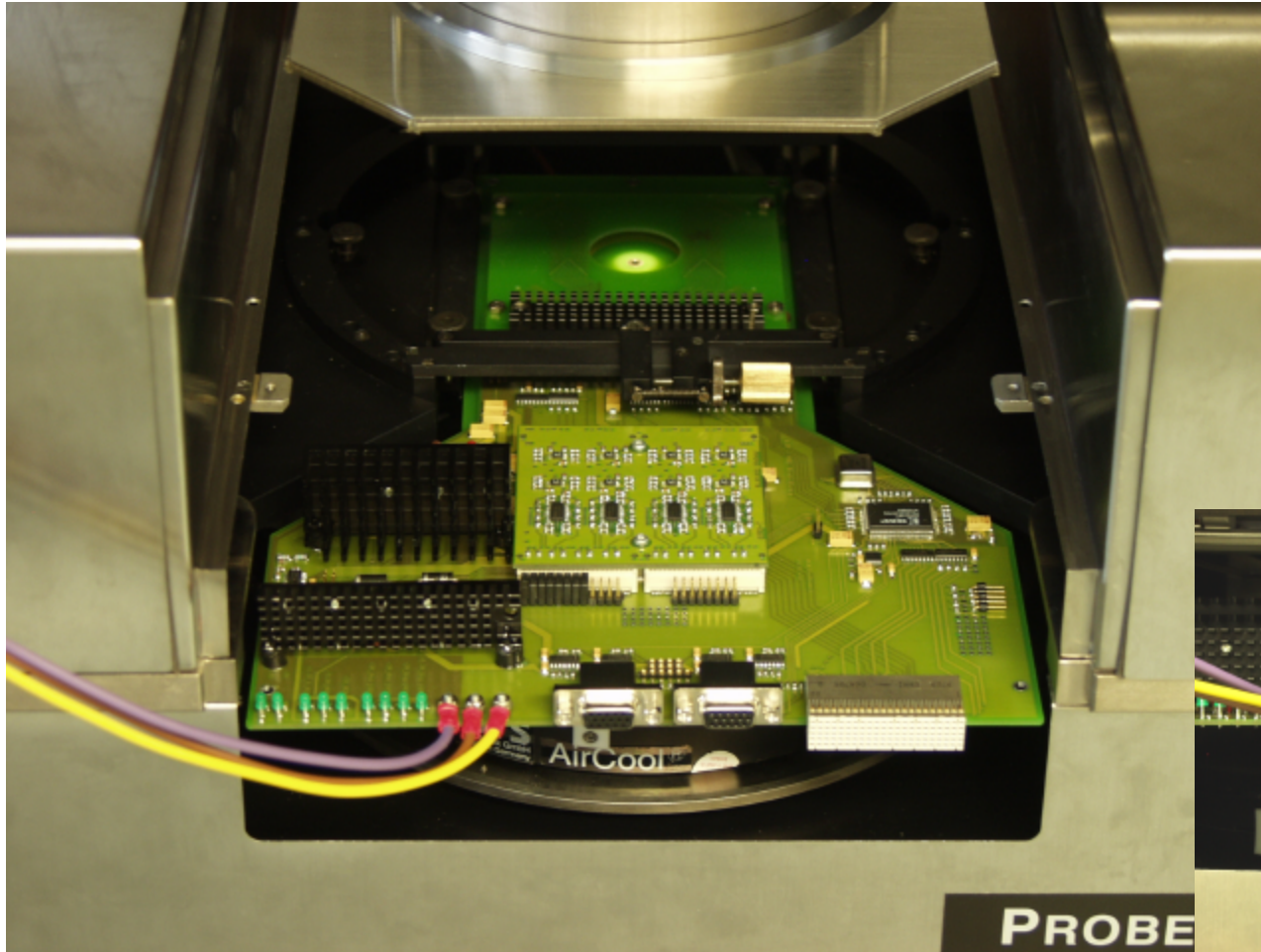
Mounted ASIC-Test Board

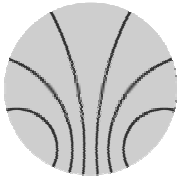


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ASIC-Test Installed



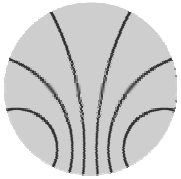


ASIC Test Plans



Next Steps:

- Mounting of an MCM without PPrASIC, but with the Needle Adapter Card.
- First “Die Probing” with ASIC-test System.
- Implementation of automatic MCM test in Waferprober system.



Outlook



Automatic test of MCM & ASIC must include

- Power test
- Data path output verification
- Configuration of ASIC
- Control path output verification

Additional MCM tests features

- Tolerance margins for output
- Phos4 test
- Bad component identification

The green light