

Status of plans for pixel detector ladders at RIKEN/CERN

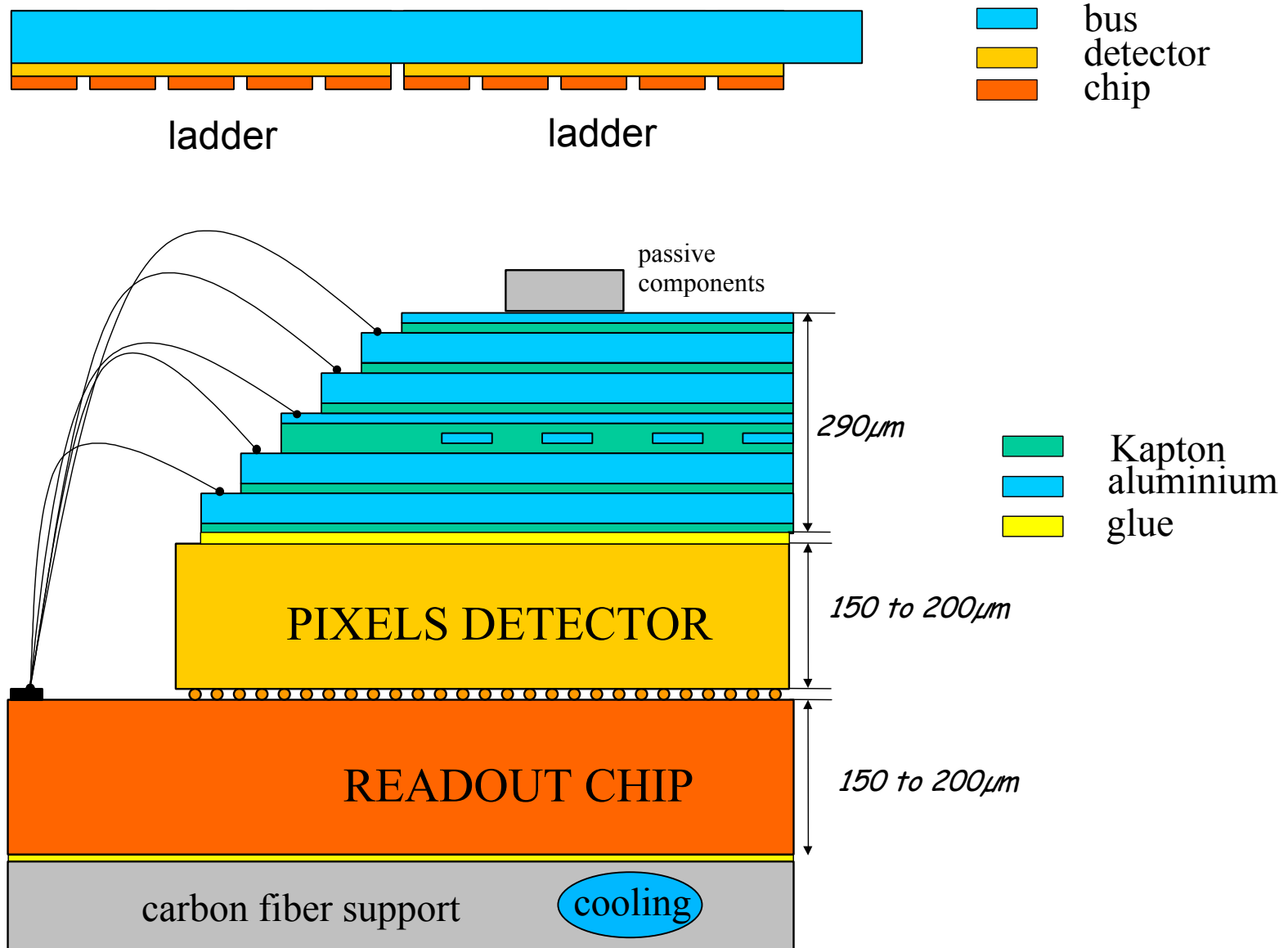
PHENIX Silicon Upgrades Meeting
27 February 2003

Johann M. Heuser, Hiroaki Ohnishi

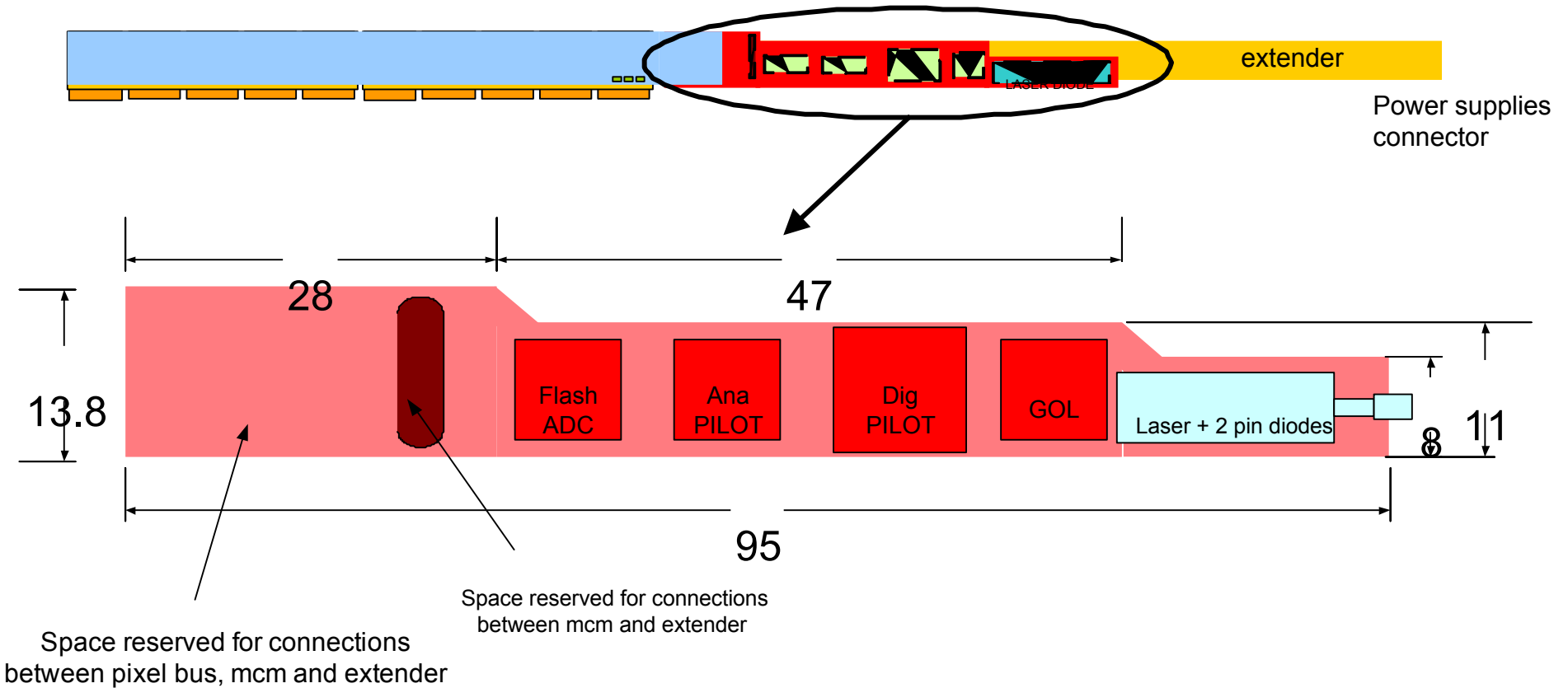
RIKEN - Radiation Laboratory



Pixel bus

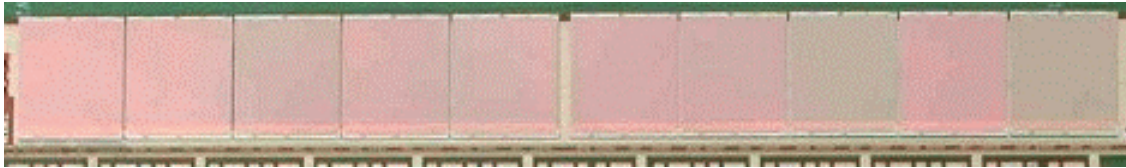


Pilot MCM

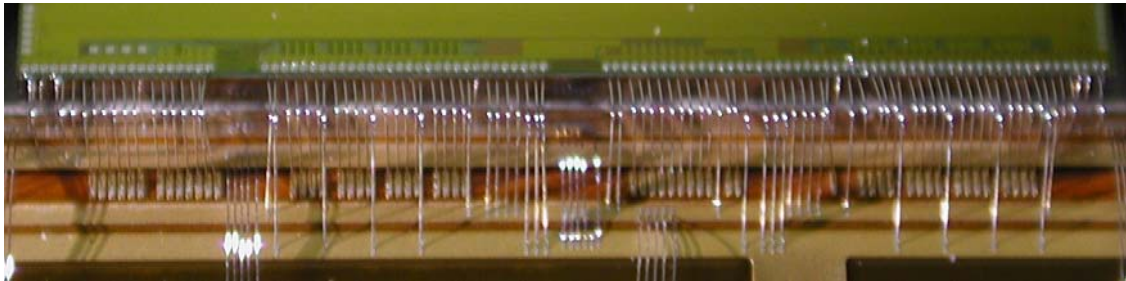


ALICE Pixel Detector

Some impressions from the comprehensive ongoing prototype testing:

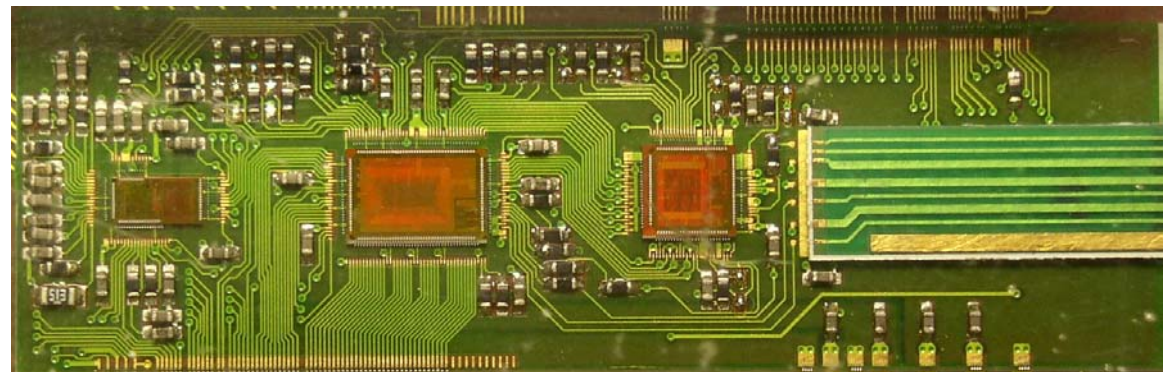


ladder/half-stave prototyping



bus prototyping: Cu → Al/Kapton

pilot MCM prototyping



analog pilot

digital pilot

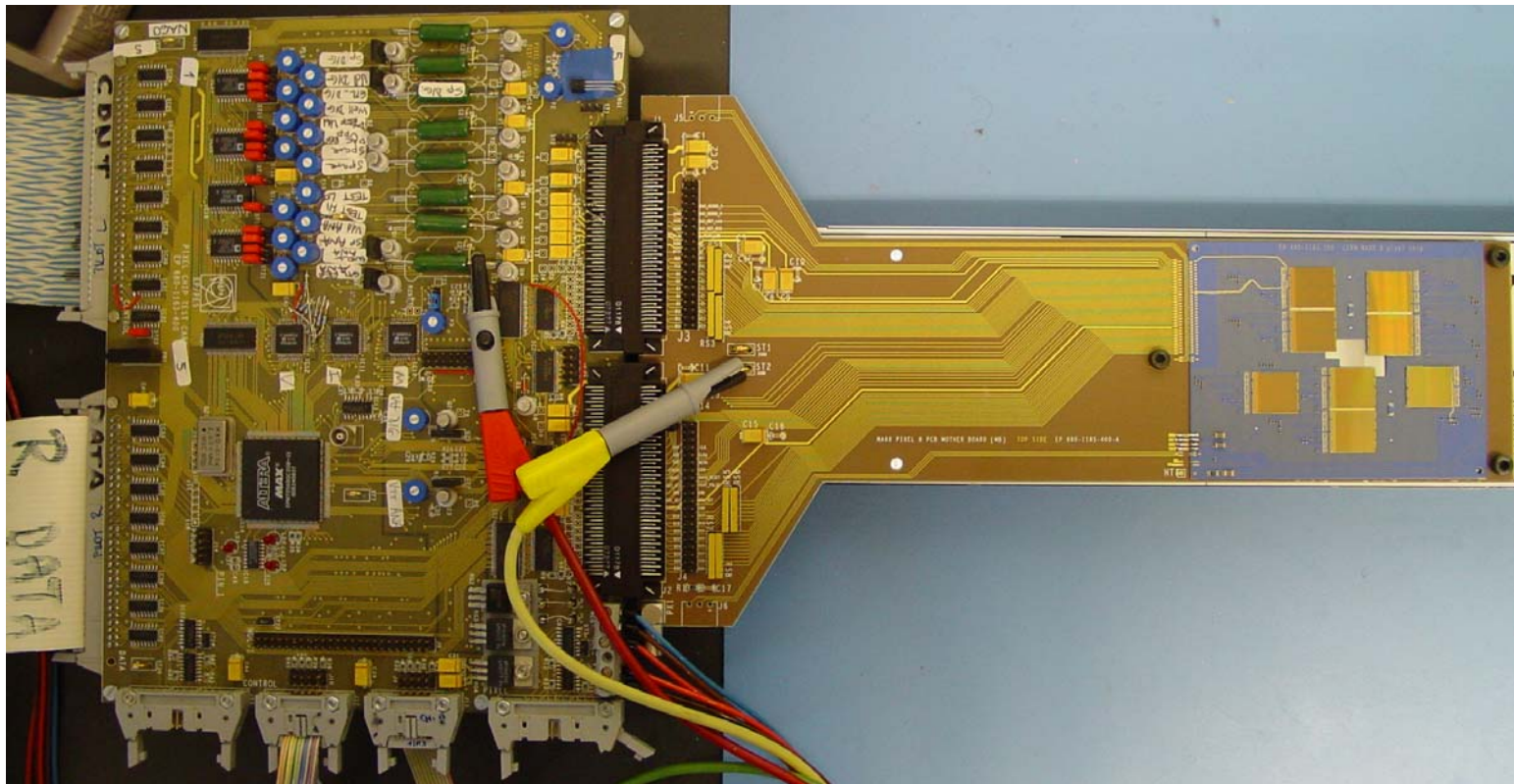
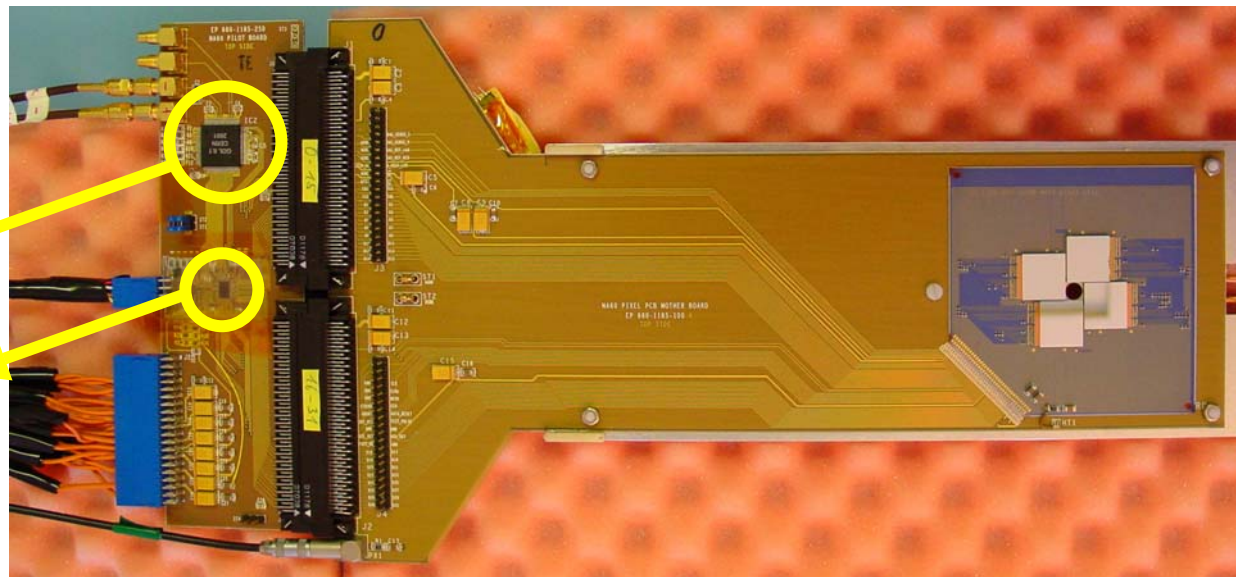
GOL

NA60 Pixel Detector

GOL

digital pilot

4-chip plane with **new**
pilot-GOL type control.
Feb. 2003: **Works!**



8-chip prototype
plane with **old**
“MB” type control.

RIKEN plans

- We know how to use this pixel detector technology.
- We know the requirements for a PHENIX application.

- Private discussions on technological issues and approaches were started with the ALICE pixel and CERN Microelectronics groups.
- To arrive at a RIKEN plan on how to build a Pixel detector module for PHENIX using CERN pixel technology, we will first discuss inside RIKEN to consolidate ideas and approaches. Those will be discussed in PHENIX.