FTK first production commissioned

Final prototypes ready

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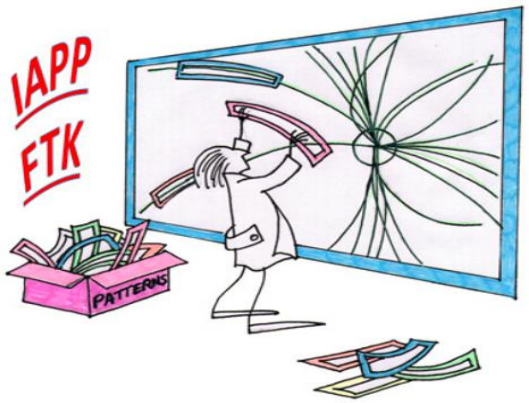
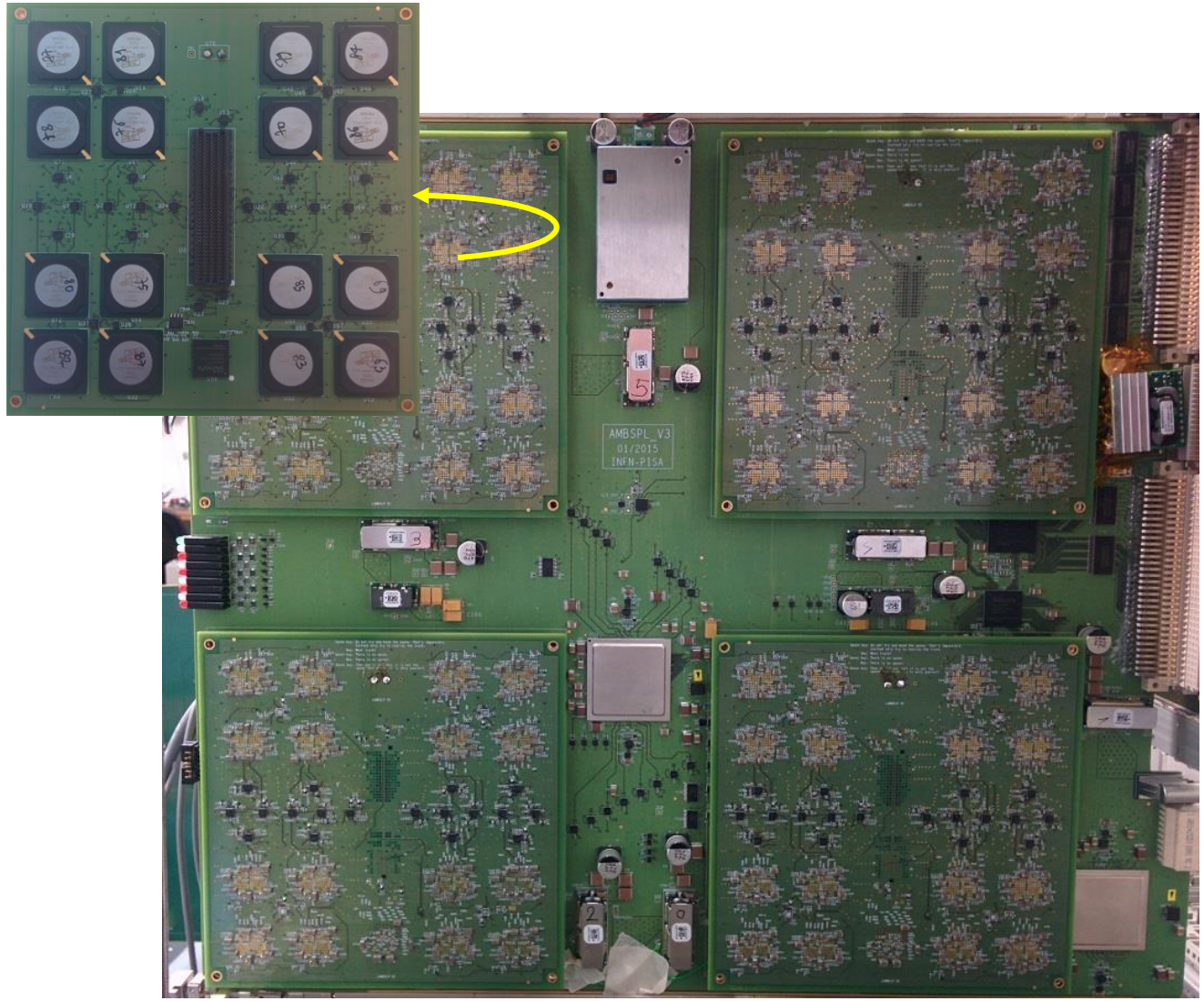
IAPP Project number: 324318



EB meeting, Pisa 12/11/2015

AMBSLP - LAMB

- Serial Links @ 2Gb/s
- VME 9 U
- Clock @100MHz
- Supply Voltages:
  - 2,5V
  - 1,8 V
  - 1,2V
  - 1V
- Power consumption:
  ~ 250 Watt



AMBSLP: changes in the final prototype

- After the FTK AM board design review (CERN, may 2015) we have done the following improvements in the AMBSLP:
  - 1 DC/DC converter per LAMB (AMchip core). Before was 3 DC/DC in total
  - Power on sequence: as requested, first low voltages, then the others.
  - We can program the LAMBS firmware in any slot of the AMBSLP. We do not need to put a Lamb in a specific slot to perform the JTAG programming of the FPGA.
  - Added level shifters to be compatible with the in/out signal voltage levels of the AUX board (AUX board: 3.3V; AMBSLP: 2.5V)
  - Fixed some errors

LAMB: changes in the final prototype

- After the FTK AM board design review (CERN, may 2015) we have done the following improvements in the LAMB:
  - New AMCHIP06 pinout
  - Added 2 temperature sensor per LAMB
  - No road signal. The Lamb detects when there are no more roads identified

Status:

- Final prototype of the AMBSLP under assembly in this days.
  Should be in Pisa at the end of November.
- Final prototype of the LAMBSLP already in Pisa
  (we can already use it with the “old” amchip05 with a pinout adapter)

Next:

- Test of the new part of the boards.
- Validation of features never used before: Flash RAM (firmware for test under development)

Then:

- Production of 20 AMBSLP (with 4 LAMBs each).
  16 will be installed in summer 2016 (USA15 – FTK)

Thanks