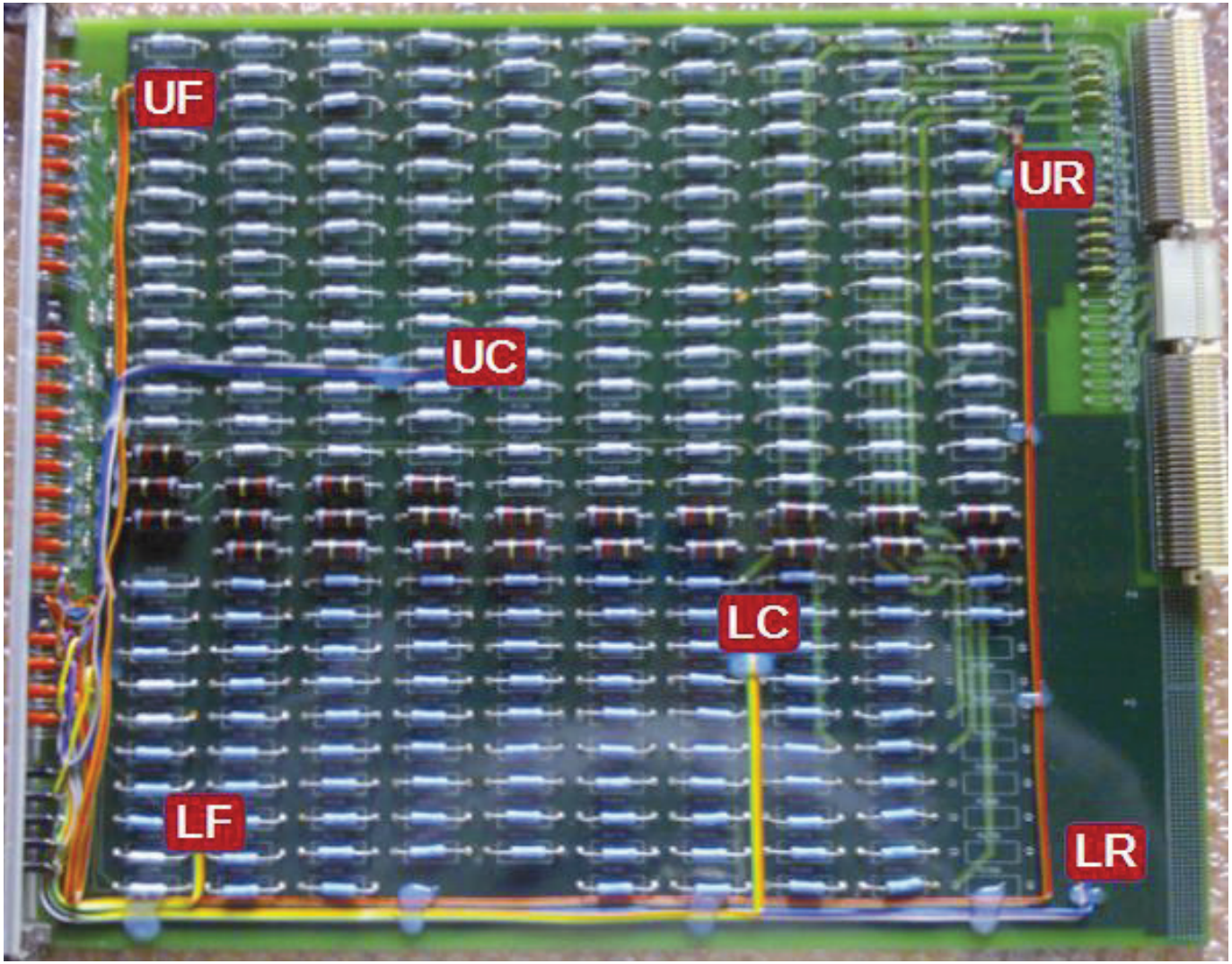
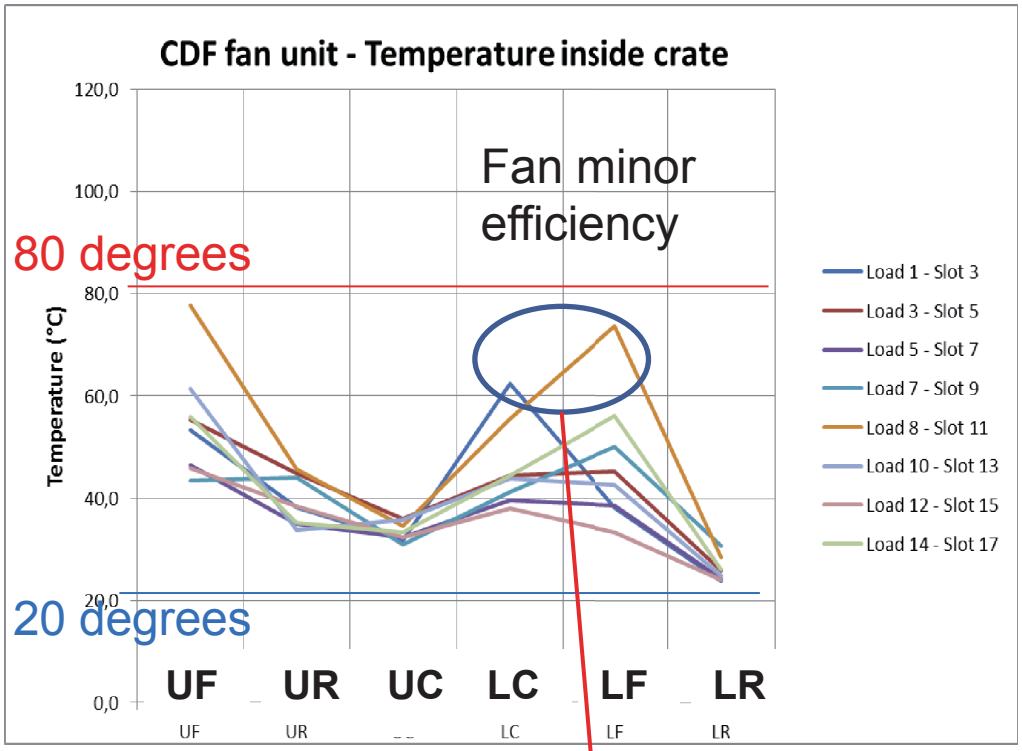
Cooling Test

- VME board 9U full of resistors
- 6 temp sensors:
  - Upper Front
  - Upper Rear
  - Upper Centre
  - Lower Front
  - Lower Centre
  - Lower Rear

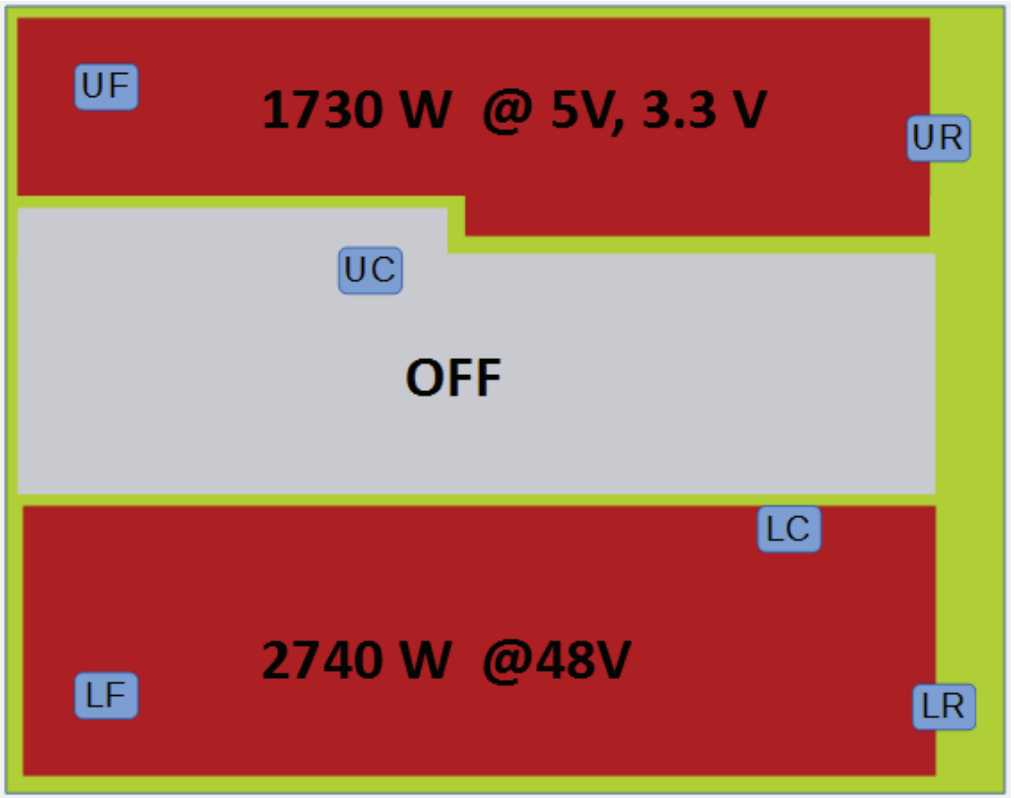


Cooling Test

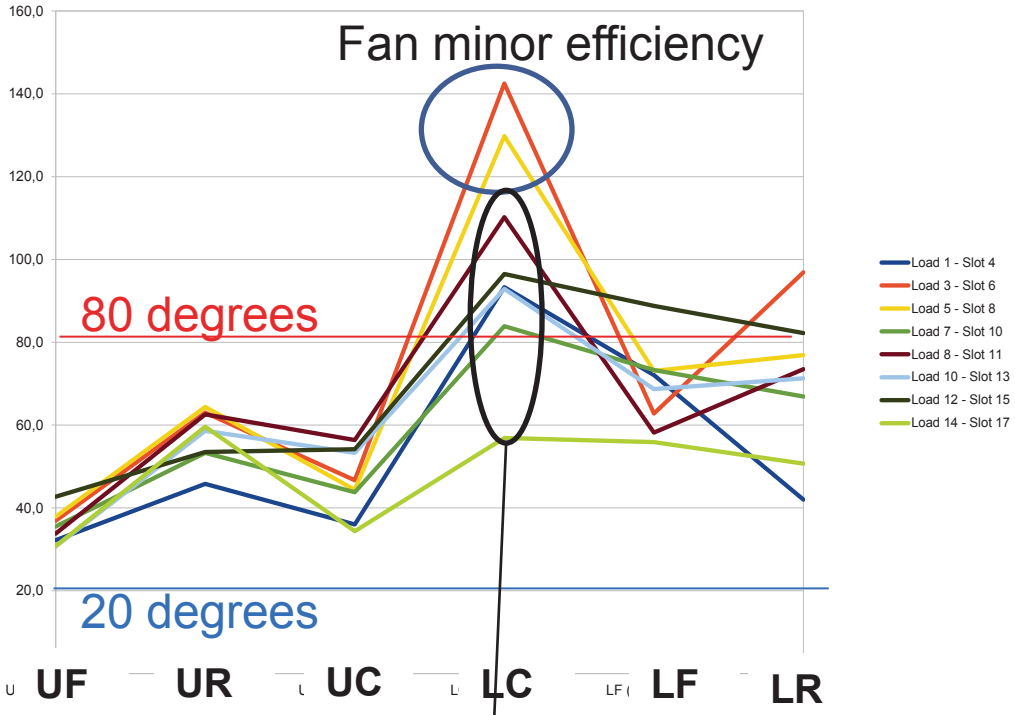


Missing wheel

- 2013 measurements:
- Test set up in Pavia
- TOT. WATTS ~4470 in front of crate
- ~298 W per board (15 boards)

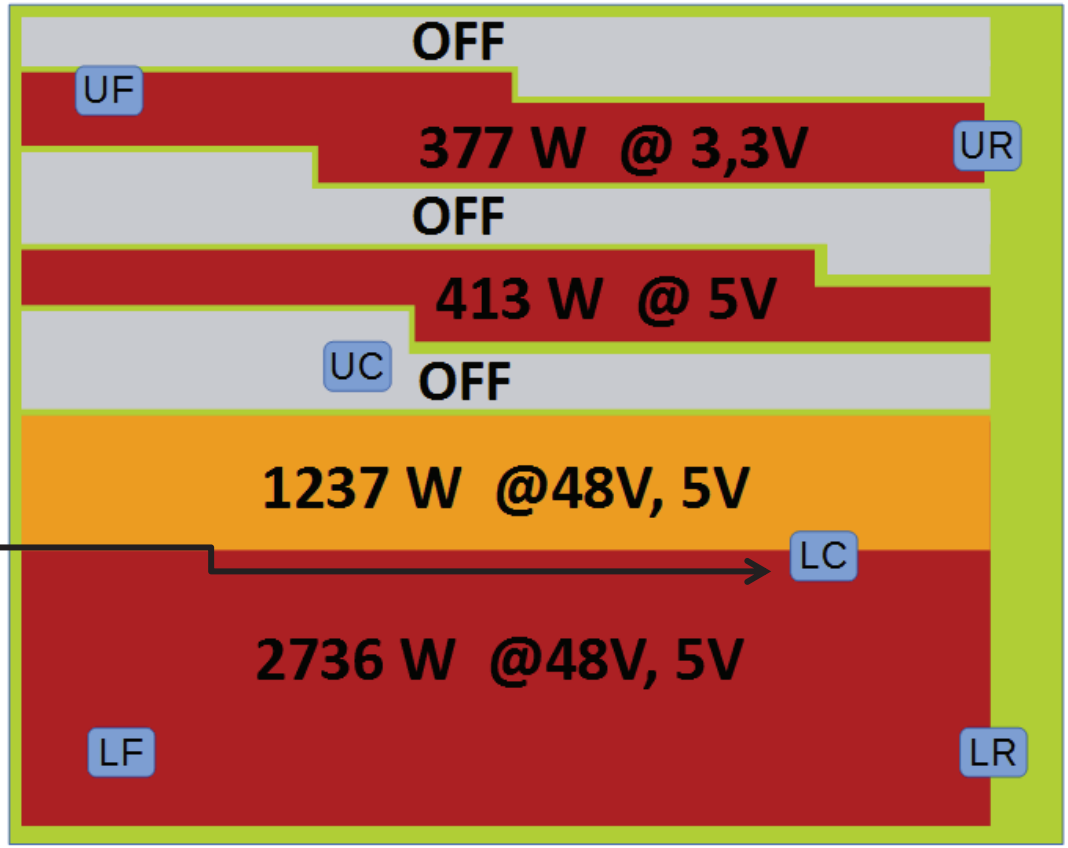


Cooling Test



- 2014 measurements:
- Test set up in USA15
- TOT. WATTS ~4763 in front of crate
- ~318W per board (15 boards)

Goes to previous Values if we turn Off the central region



Cooling Test

What we have understood and future plan:

- Heat transfer from PCB-resistances to air is minimum and air is cold, PCB Hot.
- Good air chilling and small area of heat exchange
- The board full of resistors does not emulates the AM boards behavior properly
- In this week we are repeating the test with boards that are more similar with the final boards
- We asked to IMEC also Temp Simulations to optimize the heat exchange capability of the AM chip06