

Omega

**Summary of
CALICE/EUDET
electronics meeting
in Orsay june 1st**

9 September, 2008

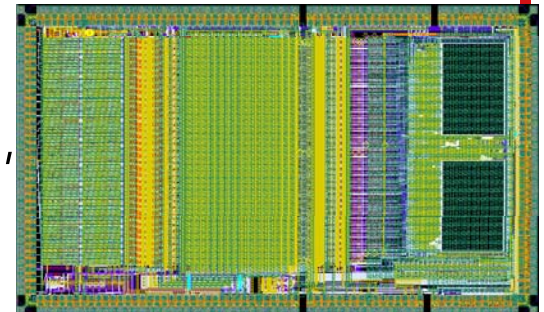
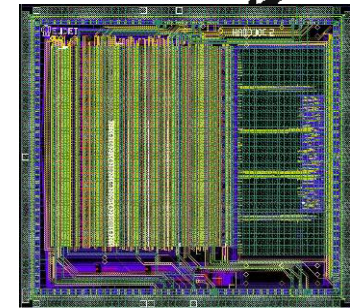
Orsay MicroElectronic Group Associated

- Summary of issues :
 - Hardroc, Spiroc and SKIROC results and plans [Omega,LPCC]
 - ASIC Production issues
 - ECAL ASUs and signals distribution [Cambridge, Manchester, LAL, LLR]
 - AHCAL HBUs [DESY]
 - DHCAL ASUs and DIF [Lyon, LAPP, LLR]
 - Power supplies considerations [DESY]
 - 3rd generation R&D [Omega,LPCC,LPSC]

News from 2nd generation ASICs

Omega

- HARDROC2 and SPIROC2 submitted in june 08
 - HaRDROC2 (june 08) final prototype before production. No major change, 3 thresholds, new package TQFP160 [June talk by N. Seguin-Moreau]
 - SPIROC2 (june 08) : fixed ADC and slow control bug. No change so far in analog part, measurements still going on, new package TQFP208 [june talk by L. Raux]
 - Updated digital part inside ASICs, common to all chips, VHDL code available [june talk by F. Dulucq]
 - expected end september 08 (one month additionnal delay)
- SKIROC2 : [see talk by Julien]
- SPIROC1 tests : [see talk by Wei]



- ECAL ASUs
 - Good progress on board stitching : kapton bridges [see talk by M. Goodrich]
 - Demonstrator in design [see talk by J. Fleury]
 - Delay and difficulties on FEV5
 - EUDET PCB milestone will be FEV7 with SPIROC2
- AHCAL HBUs
 - Also ready to go for 1st prototype [see talk by M. Reinecke]
- DHCAL PCB (ASU)
 - PCB in hand, assembly next week [see talk by I. Laktineh]

- Hardware coming in
 - ECAL boards : coming in [see talk by B. Hommels]
 - DHCAL boards : 10 in hand since July [June talk by J. Prast]
 - AHCAL boards : design proceeding [talk by M. Reinecke]
- Firmware to synchronize
 - Avoid duplications and long debugging
 - Interface to USB and LDA
 - Pieces already existing
 - VHDL repository : where ?
- Issues to be discussed in this afternoon meeting
 - More information sharing needed : profit from regular e-meetings animated by R. Cornat
 - Documentation not to be neglected

- R&D on low power ADCs
 - Measurements on Wilkinson [see june talk by L. Royer]
 - New developments of pipeline 12bit ADCs [see talks by L. Royer and F. Rarbi]
- R&D on digital architecture
 - Wait for 2nd generation results !



- TO BE DONE :
 - PCB stitching (in progress)
 - Tests of bonding chip on board for ECAL (in progress)
 - DIF prototypes (in progress)
 - Tests of power budget with existing chips and boards
 - Tests of power pulsing with Imad's boards
 - Integration issues (in progress)
 - Design of Power distribution
 - HV distribution and robustness
 - Testbeam with 2nd generation detectors
 - MEASUREMENTS, MEASUREMENTS, MEASUREMENTS