

Electronics status

Reports from the Labs

Padova

MC components

- One TRB-Θ (final version) fully tested and operational.
- Final CCB design, “shared” part is now being integrated with SB in Bologna.

FE components

FEBs: we now have about 2000 parts in Legnaro as first production batch from Novatel; these boards have now their label with number related to the database of test results. For the preserie till now we found 2 faulty FEBs out of about 100, we are investigating on what happened at Novatel as the defects should have been detected by test procedure.

Waiting for similar results from other labs. The firm Novatel says that their yield is around 99% after burn in.

Procurement of material necessary to complete the order of ~12000 boards is almost finished.

As a reliability test we are "taking profit" of COMPASS experiment with more than 5000 MADs mounted and working since end of Aug. We are anyhow carrying on accelerated ageing of 20 FEBs and Slow_Ctrl feedthru's (about 7-8 years already accumulated)

Signal feedthru's: technical problems with the PCBs (wrong cut by the factory) has delayed delivery of about 3 weeks.

Slow_Ctrl feedthru's: we've prepared about 100 pieces and waiting for components and PCBs to complete other 100 before end of year, the rest for beginning of 02.

Test pulse feedthru's and splitters: waiting for delivery of processed coax cables to start assembly. We have now enough to equip the production foreseen for 2001.

Slow_Ctrl internal bus and predecode bus: the first item is now in full production by external firm that has already delivered 10% of total quantity (tested and approved); another similar delivery will occur within 15 days. We are waiting for the flat cable from CERN to start production of the second bus that needs just one connector/cable.

Ground BeCu profiles for Al cover: Matteo is detailing the supply (quotations already arrived), delivery foreseen within 6 weeks after order.

Mounting instruction: in progress.

Deliveries: the reason for delaying the delivery of further material to all labs is the delay of signal feedthru's that stop SL manufacture. Matteo hopes to solve the problem this week and start deliveries next.

Electronics status (cont.)

Bologna

TSS

- 30 ASIC prototypes chips received and tested positively for radiation tolerance (as presented in last DT meeting)
- the prototypes are currently under full speed test in order to get final validation
- if everything will be ok, start production of full batch by end of the year using the Small Volume Production by Europractice (the technology is Alcatel 0.5 micron); delivering expected by spring 2002.
- The test of the devices will be done in Bologna using our test jig.

ON SCHEDULE

TSM

- all the pASIC needed for full system have been already delivered last July (as reported in last DT meeting)
- TSMS programming ready
- TSMD programming currently in simulation phase

ON SCHEDULE

Server

- final board design of the full board (including TSM and Control components) is ready and the master (14 layer) is currently under preparation

ON SCHEDULE

Trigger Links (LVDS)

- National LVDS serializer/equalizer/deserializer were tested with a cable of 28 m up to 40 MHz with positive results (more details in Fabrizio's presentation)

Electronics status (cont.)

Madrid

HPTDC / ROB

- The final ROB-128 with 4 HPTDC v1.0 was tested at GIF (more details in Mary-Cruz and Cristinas's presentations).
- We received 160 HPTDC v1.1 (very final version). It includes high resolution improvements and 3.3 V inputs.
- Production of 30 ROB's with HPTDC v1.1 has been launched. They will be installed in preseries minicrates.
- Radiation test of HPTDC v1.1 at UCL is in preparation for December.

Test jigs

- Development of boards for ROB test jig and RO-minicrate tests in well advanced. Expected to be ready by end 2001.

Planning

Baseline Milestones (March 2001)

- RO-minicrate prototype Dec 2001
- Full-minicrate prototype Apr 2002
- Chamber minicrate Sep 2002

**Madrid is committed to deliver
one RO-minicrate prototype to each site,
starting Jan 2002.**

RO activities during 2002

ROB production

- Acquisition of missing components: ~ 100 kCHF
- PCB production (1500 units)
- Development of test programs for ROB production
- Assembly and test of 750 boards (rest during 2003)

ROS-Master

- Tests on prototypes (8 channels)
- Development and production of the final unit