

Minicrate Meeting Summary

Bologna, June 28, 2002

Attendance

Marco Bellato
Lorenzo Castellani
Flavio Dal Corso
Marco Dallavalle
Cristina Fernández
Fabrizio Gasparini
Ivano Lippi

Gaetano Maron
Alessandro Montanari
Fabrizio Odorici
Riccardo Travaglini
Carlos Willmott
Pier Luigi Zotto

Agenda

- Slow Control links: Tracker proposal. Short discussion, followed by video conference with CERN people.
- Hardware status and component delivery terms: Trigger & RO. Schedule.
- Minicrate based DAQ layout for production centers and test beam operations
- Calibration, synchronization and test beam operations

Electronics Meeting (cont.)

Slow Control links

- Tracker proposal has been discussed and in principle rejected. It would imply redesign of the CCB which will suppose at least one year delay, and discard most of the material that has already been bought. We are fully satisfied with our system and moving to a different solution would be only justified to achieve an homogenous CMS Slow Control system.
- A videoconference with CERN people (S. Citolin, F. Glege) took place and it has been agreed that Marco Bellato will assist next week to a presentation of tracker proposal and in end-July to an informative session.

Hardware status and component delivery terms

- Madrid reports there are enough ROB-128 (with HPTDC v 1.1) to equip two full minicrates.
- Final ROB-128 design will be verified in short time and 10 more boards will be available. Assembly of boards with final HPTDC will not start until late this year.
- The company designing ROS-8 prototype PCB has reported routing problems and is delayed. The final board for MC operation is expected by September. Preliminary operation has been described.
- Another two boards useful for test jigs are described: pattern unit (2 units available, 10 can be produced in short time) and control-x (2 boards available and other 2 in short time).
- Two MB1 minicrate mechanics are ready at the moment, two MB2 are in process.
- Padova reports that one CCB will be available in mid-July. A second unit could be ready in September.
- There are two TRBs at the moment and they are expected to be irradiated at LNL. The final PCB design is in preparation. Once ready the contract for production can be signed (in September) but first 50 TRBs will only be available after four months. It is proposed that ten TRBs would be assembled manually as soon as possible.
- There is one TTC system at the moment in Padova and Madrid has ordered another through CERN Pool and could be available in one month.

- Bologna reported there are enough SBs for tests and they have boards to test them. They can provide also pattern generator units for MC testing.

Minicrate based DAQ layout

- A Minicrate layout proposal has been studied and the necessary elements for its operation have been analysed. Minimum requirements for its testing have been defined.
- As soon as they will be available, all necessary items will be added to complete the final system.
- Different necessities have been established depending on the finality of the system: test beam operation, minicrate testing and calibration, tests for minicrate production or chambers testing.
- Software necessities have been also discussed and preliminary information of data formats and register access for ROS-8 prototype has been showed.
- Software requirements for slow control have also been established.

Calibration, synchronisation and test beam operation

- Necessary elements for test beam operation with one chamber and two chamber have been established.
- Gaetano Maron has reported the status of the XDAQ for readout and control.
- Trigger data monitorization synchronised with readout data has been discussed. Access to readout data can be done without global L1A, so both trigger and readout data can be available when desired for calibration system proposed by Pier Luigi Zotto.