

Minutes of ATLAS Level-1 Calorimeter Trigger Phone Conference – 26th July 2007

Birmingham: Dave Charlton*, Stephen Hillier*, Gilles Mahout, Simon Pyatt, Xen Serghi, Pete Watkins*

Heidelberg: Hans-Christian Schultz-Coulon, Eike-Erik Kluge

Mainz: Uli Schäfer*

QMUL: Eric Eisenhandler**

RAL: Bruce Barnett*, Ian Brawn, Tony Gillman, Viraj Perera, David Sankey, Weiming Qian

Stockholm: Christian Bohm*

* at CERN **at RAL

1. Birmingham

- A second CP crate has been fully populated with 14 CPMs in USA15. Some TTC-related problems were encountered (faulty TCM-CP/JEP, and TTCdec – now returned to RAL). Des1 timing has been carried out in the crate, but Des2 timing still has to be finalised.
- A further 16 CPMs, sufficient to populate a third CP crate in USA15 (plus two spare modules) have been sent to CERN.
- Simon, Xen and Alex will be at CERN for the week beginning 6th August for further installation work.

2. Heidelberg

- Installation of LVDS cables has been completed on two of the PPr crates in USA15.
- PPM front-panels are being replaced this week on the A-side, and the retaining screws in the analogue input cable connectors are having spacer washers added, in order to ensure correct fitting.

3. Mainz

- Commissioning work has been continuing on the JEM crates in USA15, with two PPr crates operating into one JEP crate.
- One LVDS link is not working on one of the new production JEMs; investigations are continuing (module and cable swaps, *etc*).

4. RAL

- The first batch of four CPMs from the remaining eleven modules has had the surface-mount work completed. Board inspection is now being carried out, and if satisfactory the modules will go to *Harting* for assembly of the press-fit connectors. It is hoped that the boards will be ready for JTAG testing by Richard Matson at eEMS by the middle of next week (~1st August).
- The two pre-production RODs that have been sent to CERN have been partly tested. A further three modules have completed testing at RAL and are ready to send to CERN today. Approval to manufacture the remaining 20 RODs (including two modules for the ZDC group) is imminent.
- The 19 production S-link RTMs have passed inspection at RAL, and three of them will be sent to CERN with the next three RODs. The HOLAs are available for mounting on to them.
- The first three CMM RTMs have been inspected at RAL and will also be sent to CERN today. A further ten boards are currently being assembled.
- Adam is testing the 14 production TCM-64 modules at RAL, and a few will be sent to CERN as soon as they are ready.

- The batch of pre-production CMMs was sent in error by the assembly company to UCL! Attempts are being made urgently to recover them and forward them on to Birmingham for system tests.
- An RFQ has been issued today for the short (3m) G-link fibres.
- Ian is making some firmware changes relating to address space of the ROD; Bruce will issue a corresponding “Change Request”.
- The final Processor backplane has been shipped to *Erni* for connector replacement.

5. *CERN*

- Tests of the firmware updates made by Adam to the TCM-CP/JEP have been satisfactory so far, but are not yet complete.
- Tests by Weiming and Bruce last week of the ROD sampling firmware went well.
- There is now firm evidence that the ROD crates oscillate when more than three RODs are powered.
- Re-pinning of the 128 TileCal Extended Barrel trigger cables (to correct the connectivity errors) is under way and is expected to take at least two more weeks. Signal testing to confirm that the new pin-out is correct has begun.
- The week beginning 20th July will be used for work on the JEP calibration software by Markus, and for commissioning of the next CP crate by Gilles.
- The next cabling week is the week beginning 6th August. The retaining screws on the later (non-*Nexans*) style of analogue cable connectors are slightly too long for the studs on the PPM connectors, causing either insecure connections or broken screws/studs from over-tightening. The proposed solution is to fit spacer washers to all of the retaining screws, at least for the PPM input cables. It is at present unclear whether the connectors on the cables connecting to the Receivers and the various types of Patch-Panels also need this modification.
- A bent FIO pin has been identified on one of the CP crates installed in USA15. Some pin replacement tooling will be sought from *Harting* in the UK in order to carry out a repair, having first uncabled the crate and removed it from its rack.

Next Phone Conference – Thursday 9th August 2007 at 11:00 (10:00 in UK)

Tony Gillman