

## TRT Barrel Electronics Video-conference minutes, Jan. 4, 2005

### Agenda Items:

- Irradiation of boards
- Update on Burn-in
- Type 2 repair status/plans
- Board production update
- Priorities/plans for 2005

### Irradiation of Boards:

There are two methods of connecting the front end to the back end that have been proposed. One is to make a small harness out of small twisted pair that would connect the front-end directly to the existing backend cables (existing patch panels are not rad-hard and thus can't be used). The other is to use CAT5 or CAT6 wire and run this directly from the paddle card to a backend connector. It was agreed that the first solution is probably more straightforward, and therefore easier. Ole thinks that we have all of the parts already as well. Rick says that he will buy 4 coffees for everyone in attendance (Fido, Philippe, Alex, Anatoli, Ben, Ole) if we manage to get all of the polarities right the first time.

We will need a single board computer and vme crate as well. the test beam crate is available for a short time. It has a SBC that does not have a hard disk. this will need to be set up to boot off of a laptop if we want to use it. It was suggested that we could check if the pool has any SBCs with disks that have come back since the summer.

The scheduled date is the 26th of January. We will need to arrive on the 25th to set everything up. There is still some question as to whether non-EU people can be cleared to go before that date. If they are not cleared, CMS cannot go on that date (most of their staff is either Russian or American). If that is the case, the TRT would have to pay for the whole test. CMS would likely re-schedule for a few weeks later, when the clearance could hopefully be approved. There is some question as to who would be allowed to go from the TRT in that case. The current plan is for Philippe, Ole, and Ben to go. At least Philippe and Ole will be needed, but Ole, being Norwegian, is not an EU citizen. Still, a Norwegian is more likely to be approved quickly than a non-European (i.e. an American). We will have to wait and see what happens.

### Type 2 repair:

Mitch is focusing on finishing the type 1 repair before he looks at any type 2 boards. All of the broken type 2 boards (22 in total) and currently at PENN. There is no undergraduate staff currently available (winter break), but Mitch reports that there is not much else going on right now that would pull him away from repair work, other than

testing the first 2F boards.

Fido asks what has happened with a repair tracking database. Mitch reports that they now keep a text file for each board that contains a list of all repairs that have been done.

#### Board production:

All of the 2F boards have been received. Godwin is halfway through stuffing one panel for verification of the design. ACAMAS already has the purchase order for the 2F stuffing. The 3F boards are expected back from Coretec any time starting two weeks from the date of the meeting. Rick notes that this has been highly variable in the past due to the difficulty in successfully manufacturing the AR boards. There has been no word from ACAMAS on the 3B pre-series. There is some suspicion that ACAMAS may not have been sent a stuffing kit for this yet. Rick will check on this.

#### Priorities/plans for 2005:

Doug asks if there is a plan to test production harnesses in SR. This is uncertain. We will need the new TTC patch panel because it has a different number of FE connections than the old, and there is currently no plan to make a new TTC PP for the old TTC. Thus, this will be tied to the production of the new TTC, which is expected around August. The harnesses will need to be installed starting in September, so this does not leave much time for testing above ground. It is possible though.

For that and other reasons, it is essential that we have a working set of "final" backend modules by August.

Ben asks Rick if there has been any movement on building a temporary LV patch panel (basically just a bunch of regulators on some sort of breadboard) for system testing in SR. He says there has not, but he will look into it. Ole suggest that while we're at it, we might as well build enough for both sides of 6 modules so as to free up the patch panels that are currently being used for LV in the test beam setup. These will be needed for larger readout in the endcap.