Electronics Meeting

Padova, January 23, 2001

Participants:

Marco Bellato	Fabrizio Gasparini	Marina Passaseo
Lorenzo Castellani	Franco Gonella	Matteo Pegoraro
Sando Centro	Meng Guang	Carlos Willmott
Flavio Dal Corso	Anna Meneguzzo	Pier Luigi Zotto
Marco Dallavalle	Alessandro Montanari	Gianni Zumerle
Marco De Giorgi	Fabrizio Odorici	

Agenda

Approval of December meeting summary
Traco
Distribution of tasks
Milestones

December Meeting Summary

It was approved with some corrections.

Traco

It is necessary to move from 0.5 to 0.35 um (faster technology), in order to have some timing margin, and to cope with the unavoidable delays introduced by the library translation. Translation to Atmel 0.35 is almost finished. Simulation could start in one week with results expected by end of February. This is the only library available at the moment, and it is a good way to check the feasibility of this project. In any case the experience gained with this exercise will be helpful when the final library/technology will be chosen.

However, first informal enquiry with Atmel gives as cost upper limit: non-recurrent cost 80 k$ and 55$ per piece. This quote is for 5.000 pieces (70 kgates, 1k RAM, 240 pin pkg, 4 metal layer). The total cost of 355 k$ is a factor 3 with respect to the original plan.

A similar question to Samsung gives: NRC 50 k$, 15$ per chip. This offer would be for 10.000 pieces (0.35 um, standard cell).

The conclusion is that we need to investigate real costs, and because this is not just a technical issue, CMS management must be involved.

With respect to possible modifications / upgrading of present design, it is decided that it is preferably not to delay the present plan of "blind" library translation. Only in case this would fail, we would reconsider a review of the design, or the whole system.

Task distribution

We made a status review of the different items. For most of them a responsible can be identified.

Traco

Traco is being taking care, from the technical point of view, by Meng Guang, Marco Bellato and Sandro Centro. Involvement of CMS management is required to decide on financial issues.

BTI

On January 16 arrived the expected BTI modules. The question now is what and how to test them. It appears evident that a person is needed to set up an automatic test system. This person should be hard-software oriented. For the moment there is no candidate.

TRB

Before proceeding with the second prototype we need to solve a few problems: AMP connectors, pigtail connectors and Traco package.
An aging test procedure must be established.
It is not clear how we are going to check production. And again, what is going to be tested. A person is required (same as for BTI?) to set up a test system.

CCB & SB

Next step is to rearrange CCB and to merge both designs (Control and TSM). Marco Dallavalle and Lorenzo Castellani are already organizing how to do it.
Duplication of control functions does not seem convenient or practical. There is no place on MB1 for such duplication and it would only be possible to implement on MB2, MB3, and MB4. But in fact, what is crucial for the trigger is MB1. Therefore we decided to make a thorough study of CCB to identify weak points. Then improve reliability, if necessary, by appropriate actions: for example, the use of specially selected components, etc.

Slow Control

Marco Bellato volunteered to look after slow control issues and therefore he will work together with Paolo Giacomelli and Hans Reithler in the definition of the interface with DCS.

The session was closed because of lack of time.