

Barrel Module Assembly: Site Qualification work for US and Scandinavian Clusters

At the Barrel Module Working meeting on December 10th 2002 it was agreed:

The US and Scandinavian Clusters had both made important progress towards final SQ, as shown in their recent documentation, and in their presentations at the meeting. It is now necessary for them to complete their SQs in efficient programmes, and then move to continuous Series Assembly.

The proposals are:

1. For the Scandinavian Cluster:
 - a) 10 modules should now be assembled with Series components, to be completed during January 2003. The results of these (mechanical and electrical) will be made available regularly to the committee, and particular importance will be put upon maintaining the mechanical tolerances to be within the specifications, and electrical performance to be demonstrated using the improved readout systems now existing in Bergen and Uppsala
 - b) the committee would be updated on their plans for baseboard-wafer assembly transport, and for final module boxes, as needed for transport to Oxford for mounting.

2. For the US Cluster:
 - a) Module assembly progresses with series components, paying particular attention to achieving:
 - I. improved leakage current performance after bonding
 - II. close checking for verification of no glue emerging from wafer edges or junctions, as the community agrees to allow this Cluster to use a modified glue pattern if this can continue to be shown to be successful in large scale production.
 - III. reducing damage, for example from surface scratches of wafers, during assembly
 - IV. all mechanical tolerances being maintained within the BM specifications.
 - b) The stated aim of the Cluster is to move rapidly to assembly of two modules per day, as the initial target. This should allow completion of around 40 quality modules in 5 working weeks. It is suggested that after this number of completed modules there is a review by the committee to help the Cluster agree its future workplan and to assess yields and performance.

Information considered in the review will include:

- I. ability of jigging schemes and bonding quality to meet the necessary specifications
 - II. consideration of the total time for assembly and QA, from start to final checked and approved module ie available for shipping to UK for mounting
 - III. with breakdown of times needed to carry out sub-items of this chain.
3. From the module assembly rates estimated by the Cluster it is expected that the review should be scheduled for mid-February 2003.

Dated : 13th December 2002

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