1 Report on Visit of TRIUMF Lab (H.Laskus, P.Schacht)

1.1 General Comments

The infrastructure available for board production and module assembly is rather impressive. The various procedures are well defined and organized, the quality of the final products is excellent. The QC is handled in a professional way and guarantees the high quality in the production process.

1.2 Special Comments

1. The HV test of a stacked layer (module assembly) seems not to be the most efficient way of doing this test - eventhough it does guarantee the HV quality of the layer. A simple connection of all signal tabs (ground) and HV tabs (HV) might be faster and simpler than the method using the special gadgets.

2. The alignment of the notches for the connecting bar should be checked at each plate during the stacking process.

3. The ground connection of the stack to the assembly table should be isolated to avoid the risk, that single small pieces of wires will break off from the wire mash and cause some HV problems later on.

4. At present there is no capacity measurement done, in contradiction to the officially accepted QC procedure. It is obvious, that this measurement makes only sense, if immediate feedback is available so that disconnected pads can be identified. A reasonable high frequency range should be available. Also a direct comparison to a 'standard' value for each channel should be available. The cable capacity related to each channel has to be subtracted. Given the fact, that this is not available at present, the first capacity measurement can be done only after the module arrival at CERN. This QC comes rather late. The disadvantage is, that a pad might not be grounded during the HV tests, increasing somewhat the risk to damage a pad board. Therefore on the long run this QC step should be added to the standard procedure. Meanwhile the visual inspection of the signal tab connections should be done with as much care as possible.