Pisa 5/12/02

Ladder production in G&A Engineering. Start of flight ladders

Up to now only 2 ladders have been encapsulated, #0033 and #0034. These ladders are made with “class B” SSDs, SSDs with current close to specifications but with a change of slope in the IV curve around 165V.
57 ladders have been built and microbonded.
The alignment errors are very good, as shown in fig.1, and the joint thickness between the SSDs is very regular (fig.2)

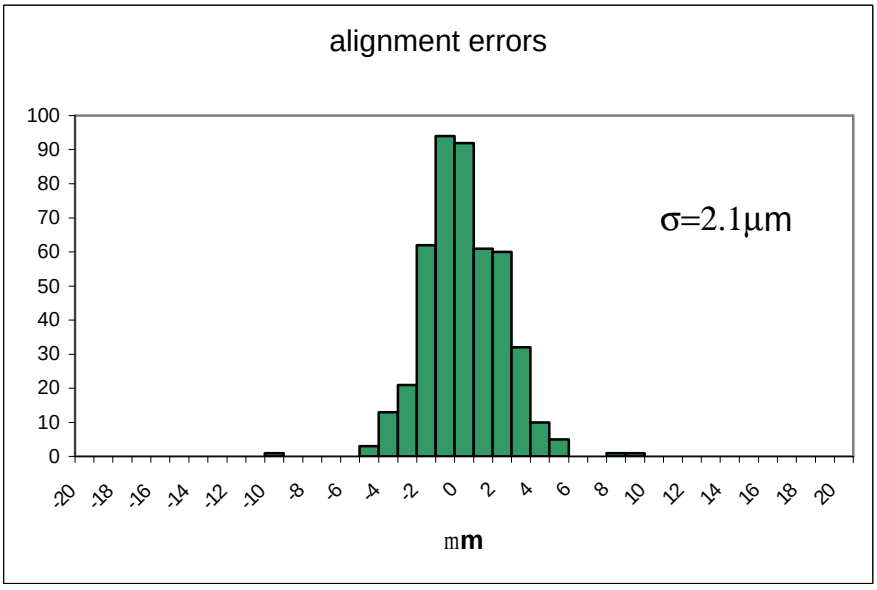


fig.1

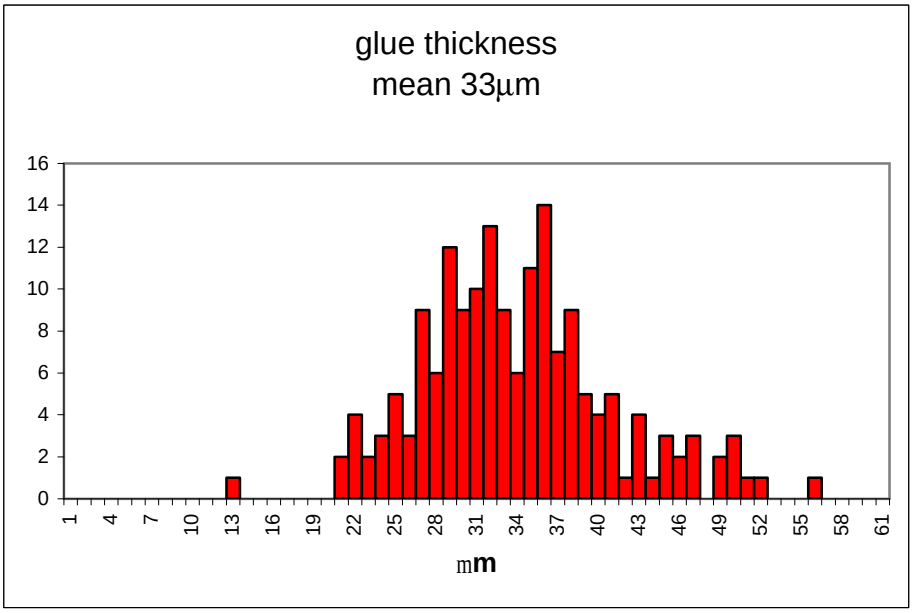
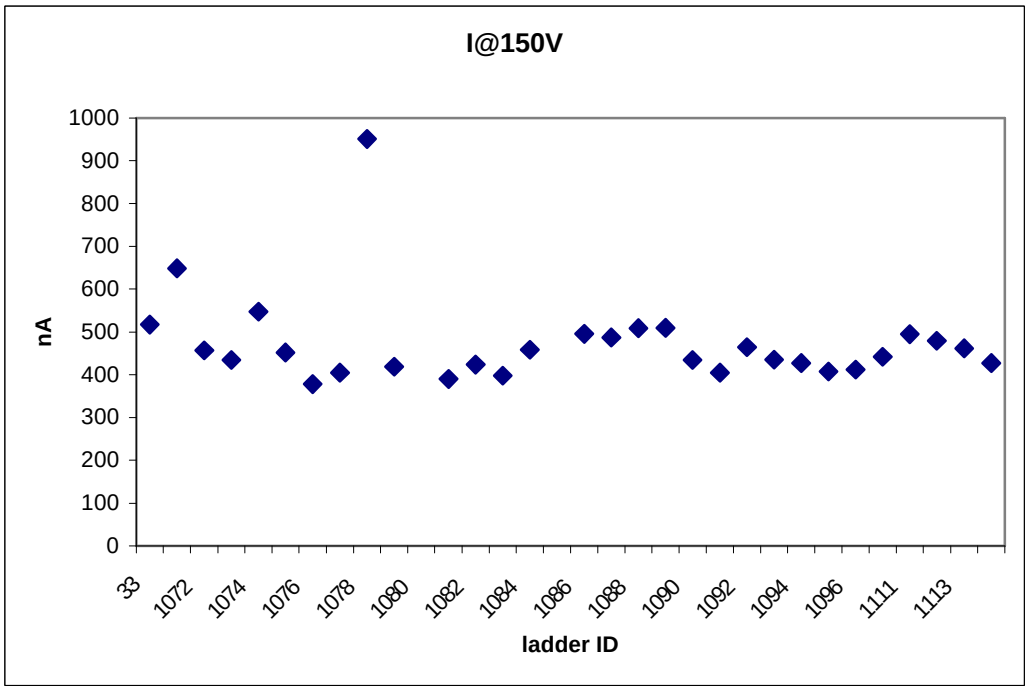


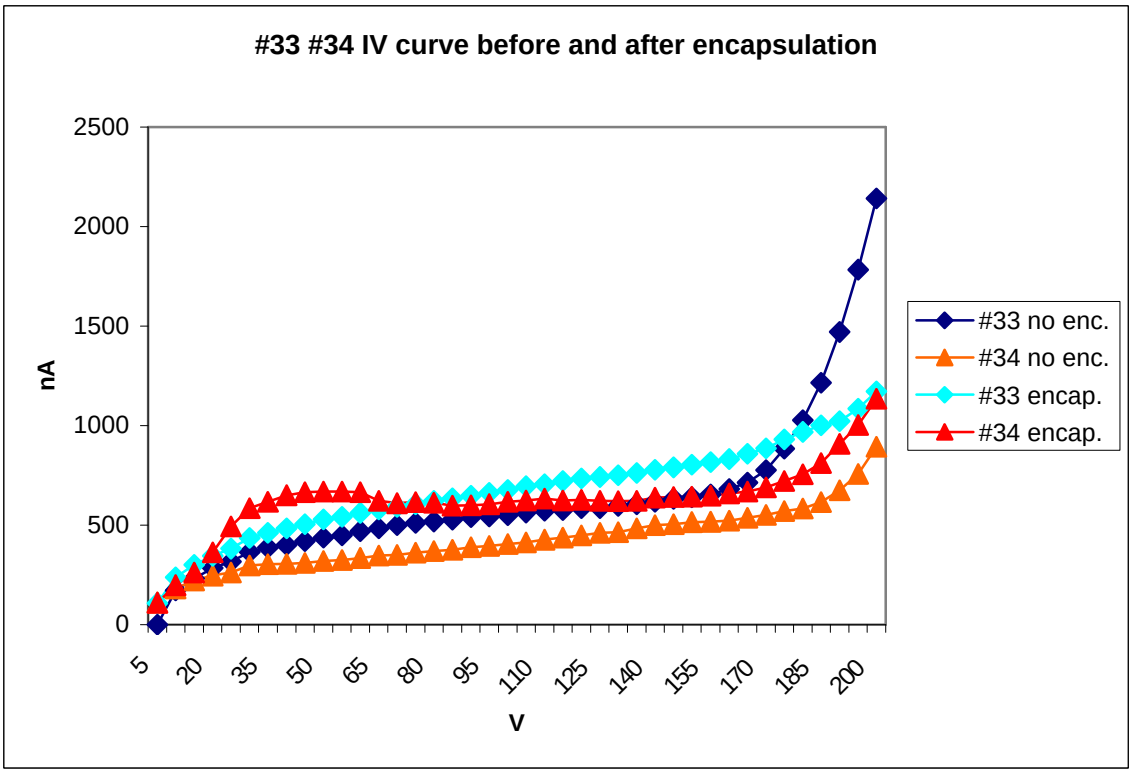
fig 2

On 32 of these ladders the electrical characteristics have been measured.
Ladder 1080 and 1085 showed very large currents without an apparent reason. These two ladders will be investigated next week.
Ladder 1095 suffered a probe station damage: a needle fault down scratching the ladder surface.
Action taken: weekly the operator shall check the needles closure

The other ladders show a quite regular trend around 500nA at 150V



Electrical tests of ladders #33 and #34



As shown in the graph, the encapsulation has little effects on the IV curve that remains well below the accepted currents. The irregularities on the #34 encapsulated curve are probably linked to the large flow of the fill glue over the SSDs on this ladder. G&A is working to avoid the fill overflow.