

Minutes of WP-meeting 258

Attendance:

DESY: Ralf Diener, Ulrich Einhaus, Oleksiy Fedorchuk, Leif Jönsson, Claus Kleinwort, Uwe Krämer, Paul Malek, Felix Müller, Dimitra Tsionou

Vidyo: Paul Colas, Keisuke Fujii, Takahiro Fusayasu, Qi Huirong, Jochen Kaminski, Tomohisa Ogawa, Ron Settles, Akira Sugiyama, Jan Timmermans

News from the groups:

Leif reported on the progress of the SALTRO electronics. The problems with the connectivity of the chip and the chip carrier had been reported before and were investigated further. X-ray images of an SALTRO chip bonded to the chip carrier had been done at PETRA, but they were inconclusive. Therefore, Leif contacted the Fraunhofer institute in Izehoe. They could provide better X-ray images showing that several of the bonding wires had no loop. There were also cracks and air bubbles in the glob visible. This is most likely because of different expansion coefficients of the PCB and the epoxy of the glob top causing breaks in wire bonds without sufficient loop. Leif is now investigating two other options for covering the chips: One company offered a smaller packaging size (12x9mm²) for an acceptable price. Also a 3D printing gives the option of producing capsules with sufficiently thin walls. The heat conductivity has to be studied but should be similar to standard packaging.

Dimitra has updated the DD4HEP model of the ILC-TPC as discussed in a previous meeting. Last time it seemed, that no cathode was implemented. This turned out to be untrue. However, the implementation was wrong and Dimitra corrected this. Also, she corrected the layer sequence and layer thicknesses of the inner and outer field cage. Still, some questions about the gas mixture and its implementation in DD4HEP remains and Dimitra will look into this.

Paul mentioned, that Keisuke will be in Saclay next week. Paul will prepare his presentation for INSTR17 in Novosibirsk soon and give a rehearsal talk before the conference.

Paul also mentioned that there is an ILD confluence website with a TPC part.

<https://confluence.desy.de/display/ILD/Tracker>

Paul has put already some information, but more input would be welcome.

Akira reported that earlier today there was a Japanese LCTPC meeting and it was discussed that results from the Japanese module with gating GEM will be presented by someone from KEK at the MPGD2017.

Finally, the list of things to be done for a TDR and a technical decision was discussed in detail. Some modifications were suggested. Jochen will place an updated list on the webpage of the next WPmtg.

AOB:

The next workpackage meeting will take place on March 2nd.