*Weekly AT-TPC meeting*

Thursday, April 1, 2010

9:30-10:30 am EST at Nuclear Conference Room

Attendees: D. Bazin, M. Ford, M. Holten, W. Mittig, W. Lynch, F. Montes, D. Suzuki

* Micromegas design submission (Mike)

Mike reported on the submitted design of Micromegas PCB. The segmentation of the anode plane is identical to the former one, but the new design includes other important components.

Below is the list of updates.

* The thickness of the PCB is 5 mm.
* A ground plane. The ground plane was put in the middle of the PCB (2.5 mm from the surface).
* A terminal for the mesh voltage.
* A terminal for the ground plane.
* Four residual pins of the anode multi-pin connectors were connected to the ground plane.
* Countersinks for the threaded standoffs.
* Countersinks for the flat head screws places outside of the anode plane.

Related documents:

Multi-pin connector; [8900MS Series](http://www.kel.jp/english/product/Half_8900/8900ms.pdf) by KEL

Terminals for the ground plane and the mesh; [SMT .025" SQ POST HEADER](http://www.samtec.com/documents/webfiles/pdf/TSM.PDF) by Samtec

Threaded standoff; [TYPE SMTSO ReelFast® SURFACE MOUNT STANDOFFS](http://www.pemnet.com/fastening_products/pdf/kdata.pdf) by Pen Engineering

To do

* Ester will contact Mike early in the next week.
* Test field cage (Wolfi)

Wolfi confirmed the feasibility of the ring electrode concept for the field cage. 3/16”-diameter rods were bent to form a 10.5”-diameter electrode. The rod ends were welded together.

The usefulness of the basic principle has been confirmed.

The tensile strength of the metal was found to be important for the ease of bending. 4043 series aluminum have a weak tensile strength, which enables us to readily bend the material.

The issue to be addressed is the accuracy of the ring shape as well as that of the planarity.

To do

* DS should contact Quality Roll (2090 Perkins, Saginaw, MI 48601; Tel 989-759-1023; Fax 989-759-1024) for the fabrication of rings.
* Project management (DS)

DS reported on the project management of the Prototype AT-TPC project.

* The Preliminary Project Plan has been drafted in March.
* Kickoff meeting has been held on March 25, 2010.
* The Project Plan has been published on March 29, 2010. The file is available at [I:\departments\projectmanagement\Projects\AT-TPC\prototype\PP\_PrototypeATTPC\_v0.pdf](file:///I:\departments\projectmanagement\Projects\AT-TPC\prototype\PP_PrototypeATTPC_v0.pdf)
* The Preliminary Safety Assessment Document is now being reviewed.
* The Planning Estimates-P4 is being undertaken. First of all, we should obtain an estimate for the design.
* The preliminary estimate of the design is 200 – 300 hours.

To Do

- DS will contact Jack Ottarson to obtain the detailed information of the preliminary estimate.

* Forthcoming events (Wolfi)
  + A French student will join us for 5 months from next week
  + An additional production of the T2K electronics (FEC, FEM) is under consideration.
  + Nathan visited CEA-Saclay, France, last week. He will report on his visit in the next meeting.