

BI-Linac4 meeting of Monday 3rd September 2007 Minutes by K.Hanke

Present: M. Pasini, K.Hanke, U.Raich, B.Mikulec

Agenda:

1. Design of SEM grids for Linac4
2. Specifications for scanning slit emittance meter
3. Working drawings of the pick-ups
4. Slow wire scanners, status
5. AOB

1. After a first rough estimate for the length required on the beam axis by U.Raich (15cm) K.Hanke has contacted C.Vuitton and found that only about 4cm are needed. Now a drawing is needed in order to proceed with the lay-out of the inter-tank and inter-module areas which house quadrupoles, steerers and diagnostics (and possibly vacuum equipment, bellows, etc). The specs for the SEM monitors in the linac have so far been specified as follows: wire spacing 0.5mm/24 wires. U.Raich will make sure that working drawings are made available.

action: U.Raich.

The beam size at the SEM grid locations is needed in order to confirm the size and resolution of the grids given above. K.Hanke and M.Pasini will find out this information.

action: K.Hanke, M.Pasini.

The large diameter of the Linac4 tanks makes the mechanics rather delicate. U.Raich requests a drawing of the areas of the linac where the profile monitors are foreseen. Drawings can be obtained from Y.Cuvet.

2. R.Scrivens has drafted the specs for the emittance meter, but it must be made sure that the device is designed such that it can also be used at 3 MeV and 12 MeV (DTL tank 1). K.Hanke has edited the table and added columns for 3 MeV and 12 MeV which need to be filled in. The beam in the LEBT is much larger (about 9 mm) than at higher energy (about 3-4 mm). The step width is correlated with the slit width which is in case of the LEBT 0.2mm. At higher energy 0.1mm seems more appropriate. This is considered feasible. The thickness of the slit material needs to be defined. K.Hanke will iterate with R.Scrivens.

action: K.Hanke

3. A drawing of the pick-up exists. L.Soby will get in contact with T.Zickler in order to make sure the pick-up can be integrated inside the quadrupole/steerer magnets. T.Zickler has promised to resume the magnet design in week 37.

4. The mechanics exist for the 2 devices in the chopper line (old LIL equipment). As for the electronics U.Raich has discussed with E.Bravin. The old stepper motors driven by G64 power supplies are considered obsolete. For the controls and signal read-out nothing exists. U.Raich will follow up the controls and read-out.

action: U.Raich.

K.Hanke reminded that no rack space has been requested so far for the wire scanners. This information needs to be sent urgently to C.Rossi.

action: U.Raich.

5. K.Hanke has a very good student who wants to do a PhD in electronics. Funding can probably be found. U.Raich will think whether there is a thesis topic in the frame of Linac4 diagnostics development.

This series of meetings will be transformed in a new Diagnostics Working Group in the frame of the Linac4 project. The meetings will be chaired by K.Hanke. The organizational structure of the Linac4 project will be presented in a Linac4 meeting on Tuesday, 4 September.

-- KlausHanke - 13 Sep 2007

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