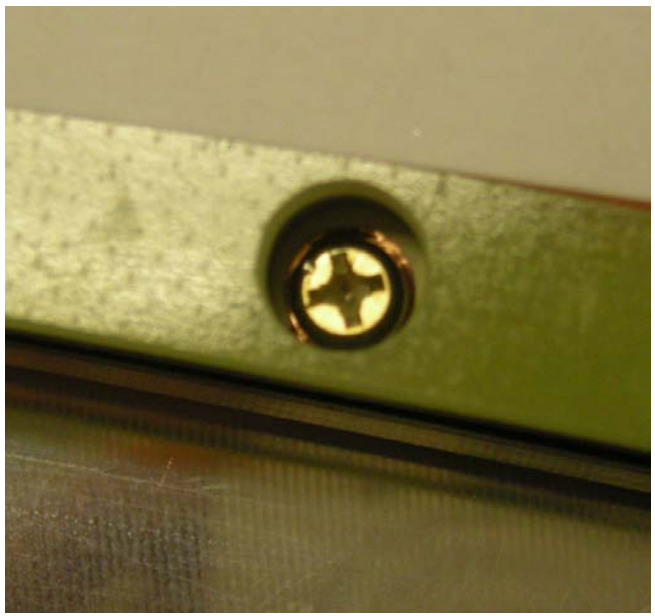
Status of GEM module

HV problem: half of the central module was dead

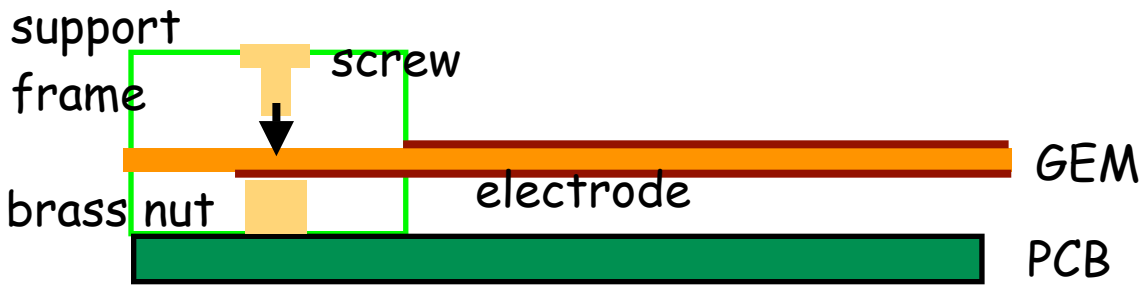
Reason: The lower electrode of bottom GEM has no connection to HV line

Why this happen ?

It never happen before in the test box.



schematic view of connection



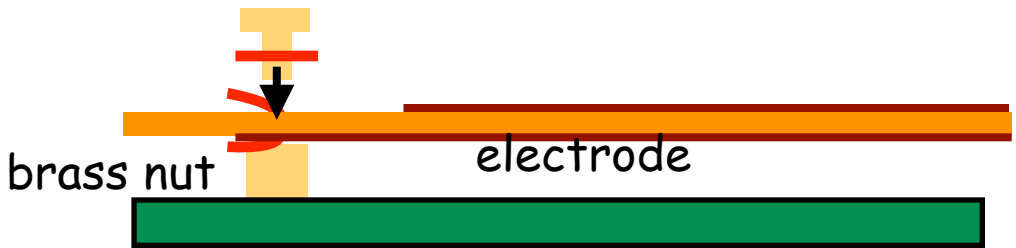
unmounted GEM module show the same problem

once we establish HV connection (just unscrew-screw)

HV connection was OK until we tighten screw of mounting bracket. -> the same problem again

Our module may touch somewhere(dummy module?) in TPC????? and GEM might be displaced a little.

What we did. Tighten the connection inserting Cu washer and piece.



Connection looks OK now.

Distortion : due to insulator facing drift volume

GEM support frame are facing to drift volume

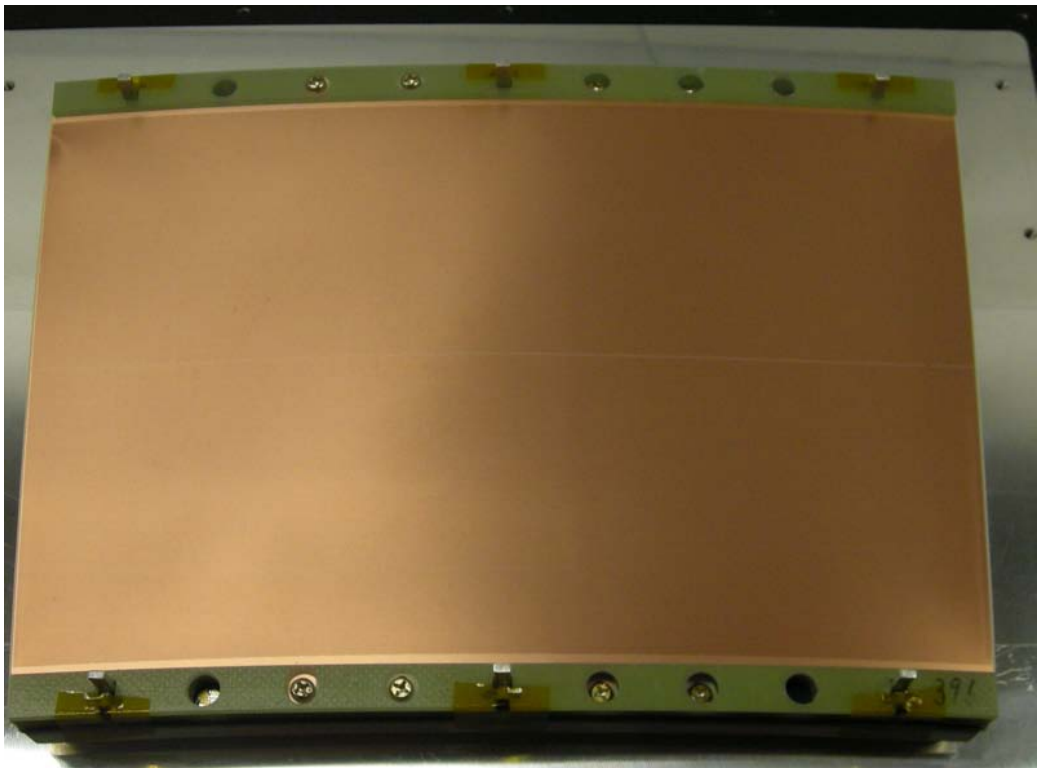
-> charge up -> E field distortion -> ExB near frame

We put Cu tape on frame surface and connect the GEM potential.

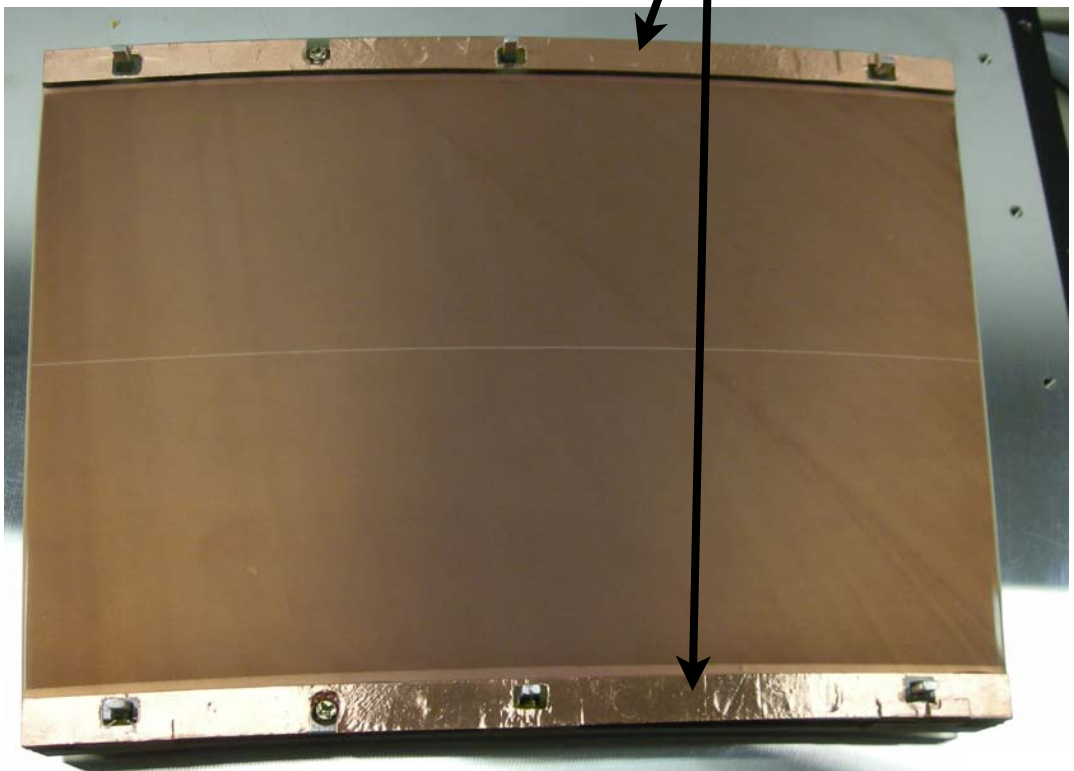
(2mm gap will provide distortion also)

we can apply different potential from reserved HV line for Gate
But we are afraid to introduce new problem after a lot of work

before



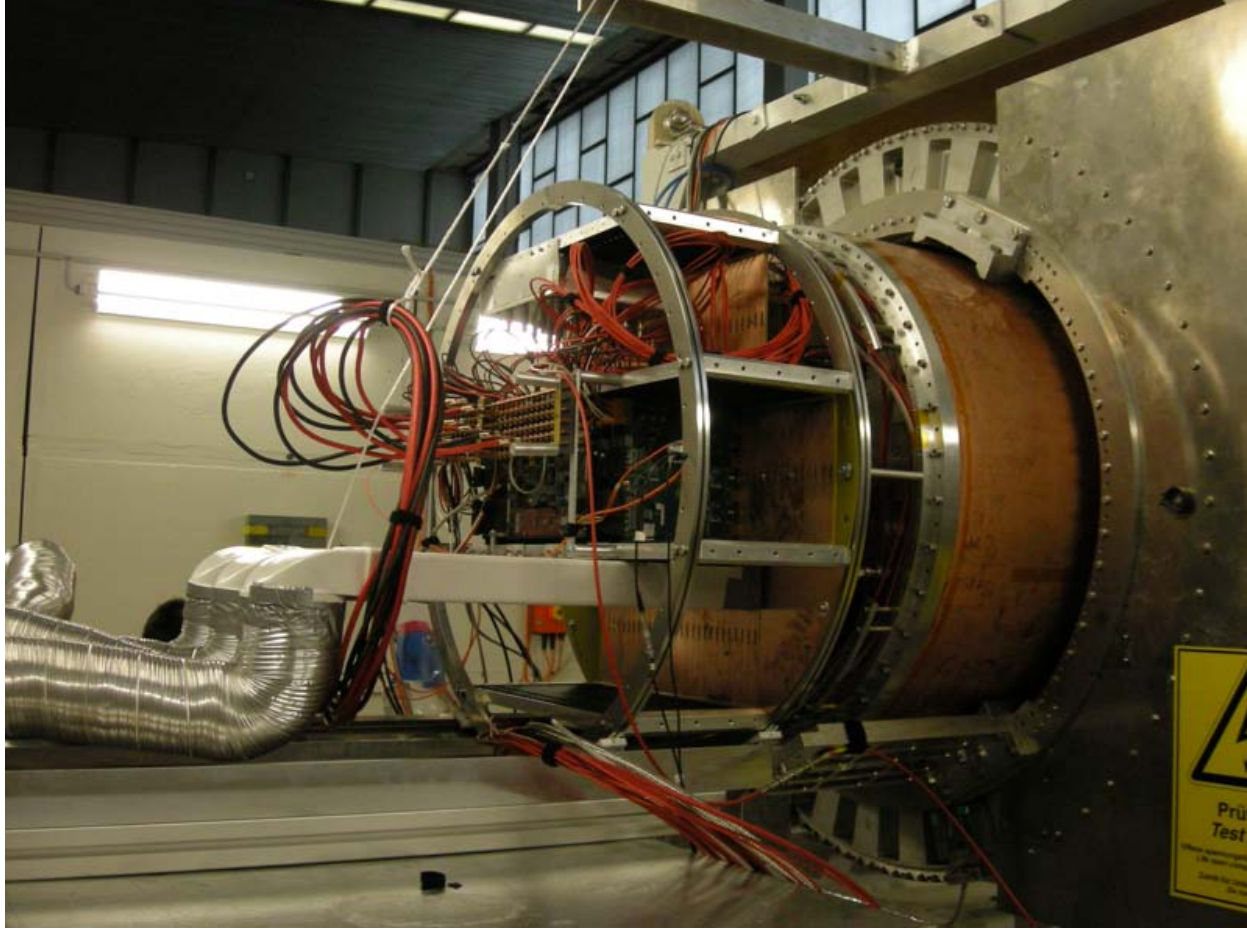
after



Status of TPC

HV connection
FEC cabling are done

Today's TPC



DAQ would not start by connection problem ??
Ulf will check this from LUND and will be fixed

Start data taking from tonight/tomorrow
through this weekend without B field

early next week 1T B field