

The workflow of module assembly for the CBM Silicon Tracking System

Summary

The Compressed Baryonic Matter Experiment at FAIR is designed to explore the QCD phase diagram of strongly interacting matter. The Silicon Tracking system (STS) is the core detector that provides track reconstruction and momentum determination of charged particles from beam-target interactions. The STS will consist of eight planar tracking stations that are built from different types of basic functional modules consisting of a double-sided silicon microstrip sensor that is connected via microcables to two front-end-electronics boards.

All in all 32 polyimide microcables, each with 64 aluminum traces, have to be connected on one side to 16-STS-XYTER-chips and on the other side to the P- and N-side of the sensor in two staggered layers with TAB-bonding. Additionally, the chips have to be wire-bonded to the front-end-electronics-boards, and shielding layers have to be fixed. This contribution will show the workflow of the module-assembly.

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