

Alibava : A portable readout system for silicon microstrip sensors

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A portable readout system for silicon microstrip sensors is currently being developed. This system uses a front-end readout chip, which was developed for the LHC experiments. The system will be used to investigate the main properties of this type of sensors and their future applications.

The system is divided in two parts: a daughter board and a mother board. The first one is a small board which contains two readout chips and has fan-ins and sensor support to interface the sensors. The last one is intended to process the analogue data that comes from the readout chips and from external trigger signals, to control the whole system and to communicate with a PC via USB. The core of this board is a FPGA that controls the readout chips, a 10 bit ADC, an integrated TDC and an USB controller. This board also contains the analogue electronics to process the data that comes from the readout chips. There is also provision for an external trigger input (e.g. scintillator trigger) and a 'synchronised' trigger output for pulsing an external excitation source (e.g. laser system).

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