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CONTROL AND MONITORING OF BOOSTER INFLECTOR PLATES POWER SYSTEM

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The superconducting synchrotron Booster is a part of NICA collider injection complex. The Booster injection system will consist of 3 pairs of inflector plates to provide different schemes of heavy ion injection: single, multiple and multiturn.

The report presents main principles, parameters, realization and test results of the inflector plates power supply system for the Booster beam injection.

The core of the system is realized on National Instruments CompactRIO platform consisting of cRIO-9068 chassis with analog, digital input and output modules and CAN interface module. The control and monitoring software is based on TANGO controls system and consists of FPGA firmware, few TANGO device servers running on cRIO controller and graphical operator's interface applications.

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