

Front-End Electronics development for TPC/MPD detector of NICA project

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Time Projection Chamber is the main tracker of the Multi-Purpose Detector. The detector will operate at one of beam interaction points of the collider NICA and it is optimized to investigate both hot and dense baryonic matter. The TPC Front-End Electronics will operate with event rate up to 7 kHz at average luminosity $10^{27} \text{ cm}^{-2} \text{ s}^{-1}$ for gold collisions at $\sqrt{\text{SNN}} = 9 \text{ GeV/n}$. The electronics is based on the novel ASIC SAMPA, FPGAs and high-speed serial links. Each of 24 readout chambers will serve by 62 Front-End Cards and one Readout and Control Unit. The whole system will contain 1488 FECs, 24 RCUs which gives us 95232 registration channels. The poster report presents current status of the FEE development and results of the FEC testing.

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