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Characterization of the GET electronics for Si detector applications

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Auxiliary detectors including Si and Si strip detectors placed inside the gas volume of the Active Target and Time Projection Chamber (ACTAR TPC) [1] represent an integral part of the overall detection system. Readout of the total number of 16384 channels from the highly segmented pad plane of ACTAR TPC will be performed using the electronics and data acquisition system recently developed by the General Electronics for TPCs (GET) collaboration [2]. To equip the additional ~512 channels of Si strip detectors the simplest solution was therefore to consider the use of these electronics for Si detector applications. In this talk, we will present a number of recent test results that were obtained to characterize the GET system for Si detectors including noise levels, gain, energy resolution, the GET internal trigger option and the overall system dead time.

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