

Preliminary Design of Readout Electronics for CDEX-10 in CJPL

CDEX (China Dark Matter Experiment) is now upgraded to about 10Kg HPGe (High Purity Germanium) detectors and the new suitable dedicated readout electronics is on demand. The readout system is interfaced to the front preamplifiers, which has three “slow” outputs with typical 20uS shaping time and one “fast” output with typical 200nS shaping time. The 8 channels 14-Bits 100MSPS FADC and 2 channels 12-Bits 2000MSPS FADC are embedded in the readout 6U prototype board. The RAIN1000Z2 readout module based on ZYNQ SoC is used for readout with Gigabit Ethernet. The preliminary design’s details will be illustrated.

Primary authors: Dr TAO, Xue (Tsinghua University); Prof. JIANMIN, Li (Tsinghua University); Prof. KEJUN, Kang (Tsinghua University); Prof. YUANJING, Li (Tsinghua University); Prof. YULAN, Li (Tsinghua University); Dr ZHI, Zeng (Tsinghua University); Dr HAO, Ma (Tsinghua University)

Presenter: Dr TAO, Xue (Tsinghua University)

Session Classification: Poster Session

Track Classification: Dark Matter