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Design and Implementation of Single-server DAQ System for HEPS-BPIX4

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X-ray detectors are crucial components for advanced photon sources. IHEP (Institute of High Energy Physics, Chinese Academy of Sciences) has initiated the indigenous development of silicon pixel detectors (HEPS-Beijing Pixel, HEPS-BPIX) over the past decade for High Energy Photon Source (HEPS), and is currently working on the fourth-generation detector (HEPS-BPIX4). Considering the large detection area, high spatial resolution, wide dynamic range, and high frame rate acquisition of the HEPS-BPIX4, a single-server based HEPS-BPIX4 DAQ system, featuring high integration, has been meticulously designed and implemented. This DAQ system is comprehensive in functionality and exceptional in performance, having been jointly tested with single detector module to ensure its reliability and effectiveness.

Keywords: High Energy Photon Source, Silicon Pixel Detector, DAQ

Minioral

Yes

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No

Are you a student?

Yes

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