

MicroTCA Image Processing System at SPring-8

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We have evaluated MicroTCA as a candidate of the next-generation front-end controller since 2011. As the first application, we have developed a MicroTCA-based image processing system for electron beam diagnostics of the SPring-8 accelerators. In order to realize rapid development, it was built with commercial off-the-shelf products such as a Camera Link FMC, an FPGA AMC with FMC slot and a processor AMC. The Camera Link IP core on the FPGA AMC was newly developed in compliance with the AXI4 open-bus. We will present the details of the implementation. In addition, the plan of the new system using MicroTCA.4 will be introduced.

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