

Life with MTCA at J-PARC

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The next-generation LLRF control system based on MTCA.4 for the J-PARC RCS was successfully deployed in 2019. The performance of the beam loading compensation is much improved and the high intensity beam up to the design intensity, 8.3×10^{13} protons per pulse, is stably accelerated. During the development, we have been supported by the various ingenuity of Japanese companies. The EPICS IOC on the Zynq FPGA is prepared by the company and it makes it simple to debug the system and build operating interfaces. The front panels of the AMC and RTM are reinforced to avoid deformation due to strong force during insertion and removal. A small part is attached to the switch of the power supply for reducing the chance of misoperation. The lightweight MTCA.4 shelf is easy to handle. We present these helpful ingenuity. Our happy life with MTCA is supported by the companies.

Summary

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