

## Applications of MTCA.4 to the J-PARC accelerators

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The Japan Proton Accelerator Research Complex (J-PARC) consists of the 400 MeV linac, the 3 GeV Rapid Cycling Synchrotron (RCS), and the 30 GeV Main Ring (MR). Its commissioning started in 2006. At present, high intensity proton beams are delivered to the experiment facilities.

The accelerator facilities use the LLRF control systems and the beam monitor modules based on VME and cPCI.

After a decade of operation, there are some discontinued modules and some modules that are required to have more functionalities to increase the beam intensity.

We are considering to renew or upgrade of these modules.

The MTCA.4 platform is considered as the candidate of the platform for the new modules.

Several prototype modules have been developed for the LLRF control and the BPM signal processing.

In this presentation, the overview of the application of MTCA.4 to the J-PARC accelerator is presented.

Also, several beneficial features of the AMC board in the prototype modules are presented.

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