

## HK FADC Digitization and Communication Work

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We report on two separate research projects related to HK electronics. First, we are exploring the idea of using Flash ADCs (FADCs) for digitizing the HK PMT signals (rather than ADC/TDC digitization). We have done simple tests at TRIUMF of the timing resolution achievable with FADCs. We are also thinking about how to quantify the benefits of FADCs. Second, we are investigating a solution for redundant communication between front end boards based on the RapidIO protocol. A prototype system is being developed based on a Altera Cyclone 5 evaluation board by Terasic.

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