

## DEVELOPMENT OF READOUT SYSTEM FOR THE CALET SCINTILLATING FIBER DETECTOR

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We have a plan to make observations of high energy electrons and gamma rays with the Japanese Experiment Module (JEM) on the International Space Station (ISS). We are carrying out the R&D for detector, CALET (CALorimetric Electron Telescope). It will consist of an imaging calorimeter (IC) and a total absorption calorimeter (TASC). We will utilize twenty or thirty thousand scintillating fibers (SciFi) for the IC part to visualize cascade showers. We have two options for readout of such amount of SciFi. First, we have been developing a new image intensifier coupled to CCD camera (II-CCD), which is based on the technology utilized and established in the balloon observations with BETS (Balloon-borne Electron Telescope with Scintillating fibers). Although the data acquisition rate will be limited to about 10 Hz, a lot of SciFi can be read with the readout system of the II-CCD relatively easily. Second, we are developing a readout system with multi-anode photo multipliers (MA-PMT) and front-end chips (VA32\_hdr32; one of the Viking family). The readout system with the MA-PMT will enable us to make data acquisition at high frequency of over one thousand Hz.