

Development of the Readout Electronics System for CEPC ScECAL

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To acquire the feature of Higgs particle, construction of Circular Electron Positron Collider (CEPC) was proposed in recent years. Electromagnetic calorimeter based on scintillator and SiPM (ScECAL) is one of the options of the electromagnetic calorimeter system of CEPC. The ScECAL Electronic prototype was constructed. Special readout electronic system was developed to meet the demands of ScECAL prototype. The ScECAL prototype contains 32 layers of basic units which hold 6720 scintillators coupled with SiPM in total. The readout electronic system was highly embedded in the prototype. The readout system also comes with a low power consumption which is about 8mW per channel. There are 2 calibration systems integrated in the prototype: electronic calibration system and light calibration system. Besides, a temperature monitor and high voltage feedback strategy is adopted in the prototype. This talk will cover the details of the readout electronic system and its latest status.

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