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## TARGET: toward a solution for the readout electronics of the Cherenkov Telescope Array

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TARGET is an application specific integrated circuit (ASIC) designed to perform the readout of signals recorded by the photosensors in cameras of very-high-energy gamma-ray telescopes exploiting the imaging of Cherenkov radiation from atmospheric showers. TARGET capabilities include sampling at a high rate (typically 1 GSamples/s), digitization, and triggering on the sum of four adjacent pixels. The small size, large number of channels read out per ASIC (16), and low cost per channel make TARGET ideally suited for the readout in systems with a large number of telescopes instrumented with compact photosensors like multi-anode and silicon photomultipliers. The possible advantages of such systems are better sensitivity, and, for telescopes with dual-mirror optics, a larger field of view and improved angular resolution. The two latest generations of TARGET ASICs, TARGET-5 and TARGET-7, are soon to be used for the first time in two prototypes of small-sized and medium-sized dual-mirror telescopes proposed in the framework of the Cherenkov Telescope Array (CTA) project. In this contribution we report on the performance of the ASICs and discuss further developments.

### Collaboration

CTA

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