

ASTRE: an upgraded version of AGET ASIC

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The HARPO (Hermetic ARgon POLarimeter) detector is a demonstrator of the performance of a TPC for measuring polarised γ rays. It was designed for a validation on the ground in a photon beam. It is the first phase of an ambitious program of a space telescope for which it is necessary to protect the electronic against the effect of radiations and particularly against Single Event Latchups (SEL). This electronic called ASTRE (Asic with SCA1Trigger for detector Readout Electronics) is based on AGET ASIC with high improvement on the logic gate layout for SEL protection purpose. We take also the opportunity in this chip to change some features as the range of peaking time value (up to 8 μ s) or the unity value of multiplicity signal (factor 2, 4 or 8). All these new features will be described during this talk.

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