



3D plasma camera for planetary missions

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A new 3D field-of-view toroidal space plasma analyzer based on an innovative optical concept allows the coverage of 4π str solid angle with only two sensor heads. It fits the need of all-sky thermal plasma measurements on three-axis stabilized spacecraft which are the most commonly used platforms for planetary missions. The 3D plasma analyzer also takes advantage of the new possibilities offered by the development of an ultra low-power multi-channel charge sensitive amplifier used for the imaging detector of the instrument. We present the design and measured performances of a prototype model that will fly on a test rocket in 2014.