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# IBIS, A TRUE DIGITAL SUNSENSOR IN A PACKAGE.

**Abstract**

Ever since the inception of Lens RD in 2012, the focus has been on innovating high reliability Sunsensors. After seven years of innovating, testing, modifying and qualifying, our BiSon Sunsensors have shown not only an unprecedented performance, but also an unprecedented price to performance ratio and scalability of production. The assembly principles developed for these sensors will be used to assemble the first miniaturized high reliability true digital Sunsensors dubbed IBIS. (for Intensity Based Image Sensor). This sensor will be based on a dedicated Sunsensor ASIC specifically designed to fulfil the requirements of very demanding long duration mission. (requirements specified are for 15year GEO after 1 year electric orbit raising). It is expected that this sensor will become the sensor of choice for many satellites due to the inherent albedo sensitivity in combination with a very high reliability. As not everybody specifies a Sunsensor in a similar way which makes comparison of various products difficult. Therefore, ESA is producing a specification to which Sunsensors can be specified and verified. The IBIS sensors will be specified and qualified in line with this standard and will use the correct definition to discriminate between accuracy and resolution, an analogue Sunsensor with a digital interface and a true digital Sunsensor and many other relevant parameters. The presentation will focus on the state of development and the IBIS development planning and the ESA standard under construction to be used for an unambiguous specification of Sunsensors.