

ASTRO APS3

Most versatile high performance star tracker

The ASTRO APS3 is the successor to the highly successful ASTRO APS star tracker (star sensor) of which more than 400 have already been contracted.

As for the predecessor, the ASTRO APS3 addresses a wide range of operational interfaces, bus voltages and other requirements. This modularity was one of the design drivers and enables cost efficient adaptations. The ASTRO APS3 can be used in almost any mission und environment. High performance algorithms are available to compensate for the effect of aging and radiation, to work under solar flare conditions and a wide range of temperatures.

Configuration options:

- Core building blocks are identical to each configuration, such as the ultra-fast lens (29 mm / f 1.0), quad-core processor, large internal memory, multi-stage baffle, compact mechanical enclosure with overall mass of less than 1.7 kg.
- Assembly options exist on PCBs to address customer needs, such as specific operational interfaces SpaceWire, MIL-STD-1553, RS422-UART, memory types such as any combination of MRAM and PROM for boot loader, recovery application and nominal application as well as options for LCL and power control interfaces etc.
- The optical budget provides unmatched performance for this size of star trackers based on the lens and quantum efficiency of the faint star detector.
- Beside the hardware basis, the ASTRO APS3 provides a powerful processor with large memory to enable new algorithms for the guide star catalogue and thereby achieving ultra-fast initial acquisition times of

For a more detailed overview to the configuration options, feel free to contact our sales team for the product selection and configuration guide.

From the ASTRO APS3 further products will be derived to benefit from the modular concept and performance of each of the novel building blocks.

Besides the star tracker functionality, new applications are enabled by software, for instance navigation and monitoring as the system enables multiple full-frame images

Source: <http://www.jena-optronik.com>



per second to be obtained and stored. Image processing can be defined per software and thereby tailored to new applications. Using the fast SpaceWire interface, full frame images can also be provided in each processing cycle.

Other applications such as SSA are covered as well. Contact us to discuss your mission requirements.