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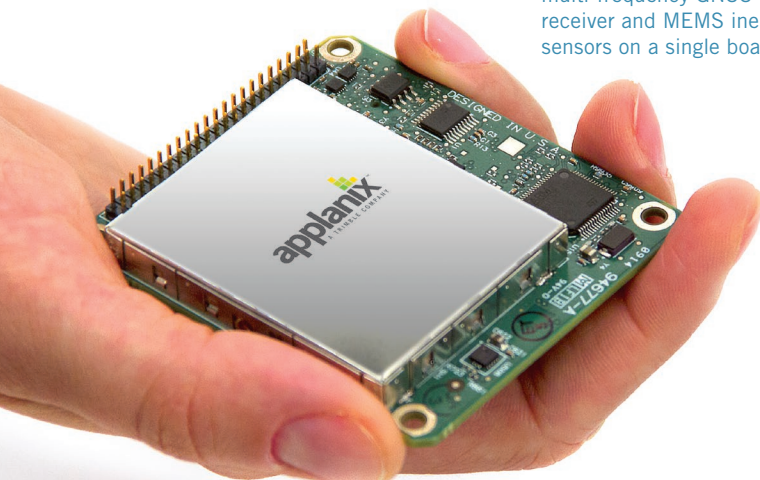
HySpex Mjolnir-1024

Norsk Elektro Optikk & Applanix introduce the first Directly Georeferenced scientific hyperspectral camera solution tailored for small UAVs

The HySpex Mjolnir-1024 is Norsk Elektro Optikk's (NEO) new hyperspectral camera for UAV applications. It is a "complete solution" for producing high-quality georeferenced scientific data, meaning it includes the hyperspectral camera, a powerful computer, the Applanix APX-15 UAV (GNSS-Inertial component) inside a small chassis that weighs less than 4.5kg in total. With rugged design, various downlink capabilities, good thermal and mechanical stability, it is ideal for a wide range of UAV applications.

Applanix and NEO together integrated the Applanix APX-15 UAV for Direct Georeferencing. "After careful examination of the available GNSS-Inertial solutions out there, we found that Applanix APX-15 UAV was the most suited in weight, performance and price," said Trond Løke of NEO. "The APX-15 UAV is lightweight, easy to integrate, and offers good performance with an easy procedure for processing data."

APX-15 UAV – Survey-grade multi-frequency GNSS receiver and MEMS inertial sensors on a single board.

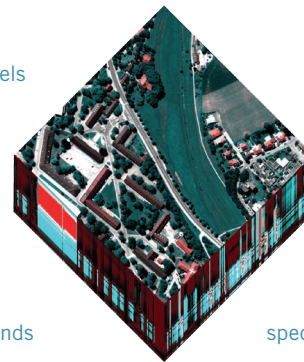


The integration of Applanix' APX-15 UAV and the HySpex Mjolnir-1024 offers tremendous cost and time efficiencies for many hyperspectral mapping tasks by:

- Enabling hyperspectral surveys to be undertaken from smaller unmanned platforms
- Enabling more frequent flights for temporal as well as spatial analysis of a changing survey site
- Providing highly accurate ground truth in a very short time using the included Applanix POSPac UAV processing software
- Flying in smaller, tighter, more difficult spaces than it has ever been possible to scan using traditional equipment

1024
spatial pixels

f/1.8
20° FOV



200
spectral bands

3 nm
spectral sampling

Hyperspectral cube and top level specs for Mjolnir-1024

Applanix has recognized the need to provide the growing UAV mapping market with the same highly efficient solutions that it pioneered for airborne mapping over 15 years ago. We are offering a cost-effective solution that meets the size, weight, power and cost requirements of small UAVs, and maintains the Applanix pedigree for quality and performance.



THE INTEGRATION

“Norsk Elektro Optikk has a very good relationship with Applanix. Both the sales team and the development teams have been very helpful in our integration work. The development team has also included some features that we needed in the GNSS-Inertial solution, and we are very grateful for that.”

Trond Løke, Norsk Elektro Optikk

Applanix specifically developed for NEO the availability of key POS indicators on users' display in real-time including:

- Position and Orientation data
- Standard deviations of the Position and Orientation data
- Alignment status
- Number of events
- Logging status
- RTK status

APX- 15 UAV is a complete and ready-to-integrate mapping solution which provides Direct Georeferencing for small UAVs. Following the principles of the Direct Mapping Solution for Unmanned Aerial Vehicles (DMS-UAV, an Applanix framework for direct georeferencing UAV payloads), APX-15 UAV features a high-performance, survey-grade, multi-frequency GNSS receiver and state-of-the-art low-noise MEMS inertial sensors all on a single board. It is compact (7 x 6cm) and lightweight (60g). And with the included POSpac UAV post-mission software, it produces a highly accurate position and orientation solution for direct georeferencing of your sensors.

About Norsk Elektro Optikk

Norsk Elektro Optikk AS was established in 1985 as a privately owned research oriented company within the field of electro optics. The company has grown to be the largest independent research and development organization in electro optics in Norway, and has established itself as a manufacturer of advanced electro optical products for an international market. NEO is certified to the ISO 9001:2008 international quality standards.



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