



N-SPHERE - High-End GNSS Receiver - © Syrlinks

New Product

- Syrlinks releases N-SPHERE, a new generation High-End GPS/GNSS Receiver ●

Press Release

IAC, Paris, FRANCE, September 19th, 2022

Syrlinks, a leading company in the design of RF Communication systems for Space releases the N-SPHERE, a new High-End GNSS Receiver for nano and cube satellites.

N-SPHERE comes as a new generation of Syrlinks' GNSS receiver. It's SDR (**Software-Defined-Radio**) core architecture implements the latest state-of-the-art positioning and synchronization techniques, to reach top class of performances for **Real-Time Precise Onboard Orbit Determination (P2OD)** and accurate time synchronization.

"We are very proud to release N-SPHERE at IAC 2022. There is today a growing demand expressed by satellite operators for advanced GNSS functionalities such as sub-metric satellite positioning as well as Precise Orbit Determination." says Eric PINSON, Director of Space activity at Syrlinks.



N-SPHERE inherits from more than 10 years of Syrlinks' experience in the GNSS domain and has been jointly designed with CNES (The French Space Agency). As a must-have, the receiver supports GNSS multi-constellations and multi-frequencies. Indeed, it synchronizes from different GNSS systems including GPS, GALILEO, BeiDou and GLONASS. Its synchronization process is GALILEO autonomous with no need of GPS pre-synchronization.

In terms of positioning, N-SPHERE provides accuracy better than 0.5 meters, thanks to a **unique P2OD library** (referenced as "Bolero") developed by CNES. Its Software-Defined-Radio (SDR) core architecture brings maximum flexibility and authorizes in-flight firmware upgrade or software configuration adjustment.

N-SPHERE takes part of the GOMX-5 mission organized by ESA and Gomspace A/S, to be launched in 2023. The product is integrated within a 12U Nano/Cubesat payload to demonstrate new nanosatellite capabilities for the next generation of LEO constellations.

"GOMX-5 is a great opportunity to illustrate the in-space capabilities of next generation Low-Earth Orbit nanosatellites such as the GNSS functionalities with N-SPHERE. N-SPHERE' SDR platform comes as a very future proof and scalable solution that authorizes next level of GNSS signal protection with anti-jamming and anti-spoofing mechanisms", adds Eric.

N-SPHERE will be highlighted at Syrlinks booth #D5 during **73rd International Astronautical Congress in Paris from September 18th to 22th**.



ABOUT SYRLINKS

Syrlinks, is a French company, founded in 2011 near Rennes. The company designs and delivers worldwide RF communication products to address four market segments: Space, Defense, Safety and Time-frequency. The company which today consists of more than 185 people has successfully delivered more than 2000 Flight models for Space, which represents more than 800 years of on-orbit time with 100% reliability!

The Space business unit has developed four product ranges: TT&C, Data Transmitters, GNSS and SDR Payload. This meets different market segments in terms of satellite integration (Nano/Cubesat, Micro and Mini satellites) and in terms of applications such as Earth Observation, Satcom, GNSS Services, LEO PNT, Spectrum monitoring, etc. Syrlinks masters the design of reliable product based on COTS (Components-Off-the Shelf) components, enabling cost-reduction for New Space.

Its products have been used in many high-profile space missions such as Rosetta, Myriades/Myriades-evolutions, Proba-V, OneWeb Satellites, Pléïades-Neo, Argos Neo, Microscope, etc. Syrlinks works with prestigious clients and partners such as Airbus, OneWeb, the CNES (the French national agency for space studies), the European Space Agency (ESA), Thales Alenia Space, and Hemeria.

More infos at syrlinks.com

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