ANYWAVES

SPACE ANTENNA MAKERS

Europe's Celeste (LEO-PNT) Programme: Anywaves deploys innovation and expertise for the navigation payload antenna

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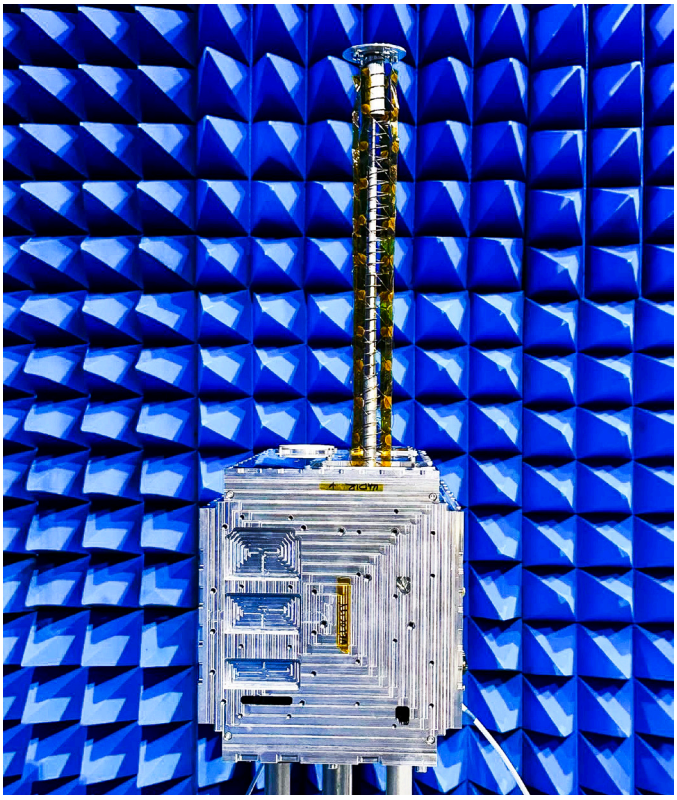
As low Earth orbit Positioning Navigation and Timing (LEO-PNT) initiatives gain momentum worldwide, Europe is moving forward with ESA's Celeste In-Orbit Demonstrator (IOD). Thales Alenia Space, prime contractor of one of the two consortia developing the IOD, has entrusted Anywaves with the design and delivery of the antennas required for the mission, including the navigation payload antenna.
Anywaves delivered this RF equipment, operating in L-band and designed as a deployable helix, highlighting the company's strong technological contribution to the European program.



Low Earth Orbit In-Orbit Demonstrator (LEO-PNT IoD)

Compact and Robust Design for a High-Performance RF Link

Developed, qualified, and delivered in less than eighteen months, this navigation payload antenna, intended to radiate a Navigation signal from the low Earth Orbit, features an innovative design.
Optimized for small satellite platforms, **it combines compactness and performance through a quadrifilar helix configuration and a deployable mast technology.** The antenna offers an excellent ratio between stowed and deployed dimensions, ensuring homogeneous signal distribution on the ground with consistent power and quality, even in challenging environments. Its circular polarization and helical structure enable reliable and accurate transmission, while the deployment mechanisms are specifically designed to withstand launch loads and meet the requirements of low Earth orbit.
As part of the Celeste IOD contract, Anywaves has delivered one qualification model and two flight models, validating its development processes and its ability to provide flight-ready payload antennas.

A Proven Expertise in Payload Antenna

This new delivery marks another milestone in Anywaves' continued growth trajectory. Earlier in 2025, the company became **the first commercial supplier to deploy a Reflectarray antenna in orbit**, demonstrating its industrial expertise in the design of payload antennas, particularly deployable models.
Now contributing to the Celeste programme, the delivery of both the helix antenna and a GNSS service antenna builds on the collaboration initiated with Thales Alenia Space in 2020 and realized in 2022 with the launch of Omnispace Spark-1TM, the first satellite of the Omnispace program, also equipped with Anywaves antennas.

Flying aboard Pathfinder-A, the first satellite of the Celeste IOD, Anywaves reaffirms its capacity to innovate rapidly and provide high-performance payload antennas for constellation missions.
Today, the company continues to demonstrate its know-how in delivering payload antennas designed for both commercial and institutional missions. The next satellites in the demonstrator constellation, four Pathfinder-B satellites for each of the two parallel IOD contracts, will carry a new L-band antenna as well as several deployable helical antennas operating in C and S bands, all developed by Anywaves in the case of Thales Alenia Space Consortium.

About Anywaves

Anywaves, pure player in the space industry, aims to become the global leader in its market.
The company designs, manufactures, and delivers high-performance space antennas and RF payloads worldwide, offering both off-the-shelf and custom solutions.
Driven by an innovative industrial vision, Anywaves adopts the highest market standards, including EN 9100 and ISO 27001 certifications.
Performance, reliability, and short lead times are at the core of its value proposition.
For more information, visit **www.anywaves.com**

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