

Airbus delivers first active antenna of the SpainSat NG-I satellite

Integration on the secure communications satellite has started

Acceptance testing of the active transmit antenna for Hisdesat's SpainSat NG-I satellite has been successfully completed following the final radiation pattern tests. The antenna is now being integrated onto the satellite at the Airbus facilities in Toulouse, France. Once integrated, the antenna and satellite will undergo thermal vacuum tests (TVAC) and then vibration tests.

The two SPAINSAT NG satellites of Hisdesat include a highly advanced, fully flexible X-band payload, which employs active antennas with in-orbit reconfiguration capability, an integrated digital processor that will interconnect the X- and Ka-band payloads for cross-banding, and a dedicated high-speed service link that enables rapid reconfiguration.

The acceptance test campaign for the active receive antenna has also started at Airbus' Getafe site in Madrid, and the antenna will be ready for delivery at the end of the summer. The first satellite is scheduled to enter into service in 2025, providing coverage across Europe, Africa and the Americas from geostationary orbit.

Development of the active antennas presented unique challenges, which have been successfully overcome thanks to the design and manufacturing methodology and an efficient validation logic. The acceptance campaign demonstrated the high performance of the active antenna, far superior to other equivalent systems on the market. The functional tests allowed the precise characterisation of fundamental parameters such as maximum radiated power in dual polarisation, exceptional precision in the control of the radiation pattern of each of its 16 beams, as well as high spectral purity and linearity, fundamental parameters for optimising the service and flexibility of SpainSat NG's operation.

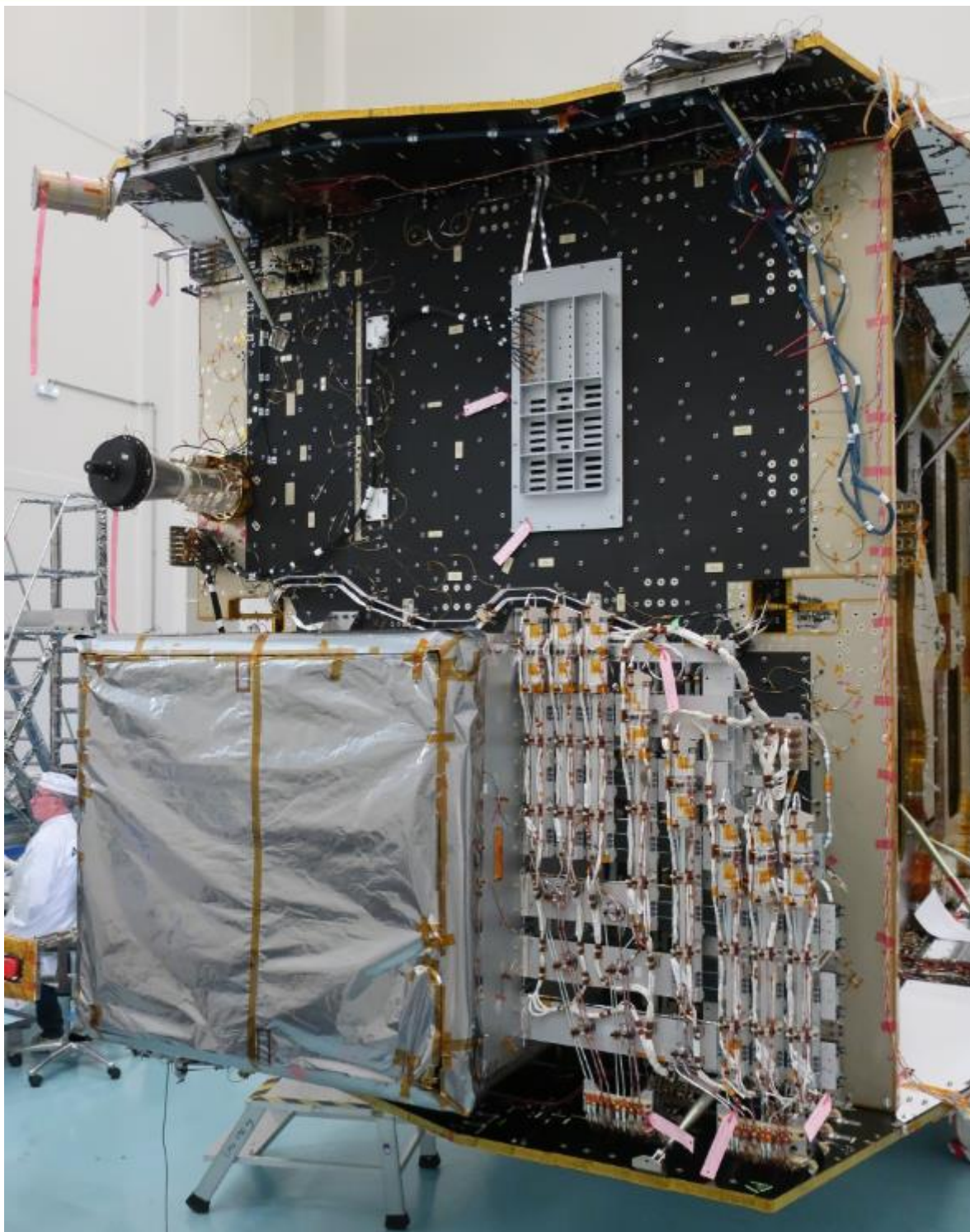
The industrial challenges associated with the production of the next-generation active antenna system for the SPAINSAT NG programme are significant, and represent a major leap in complexity and volume compared to previous generations. The collaboration between Airbus and its industrial partners has enabled these challenges to be overcome and position both Airbus Space Systems in Spain and the national supply chain as an international reference for this type of product.

The development and integration of innovative satellite payload elements, such as the reconfigurable active transmit and receive X-band antennas and the deployable pallet of individually steerable Ka-band antennas, were supported by the ESA PACIS 3 partnership project.

Follow us



If you wish to update your preferences to Airbus Communications, media@airbus.com
If you no longer wish to receive communications from Airbus, media@airbus.com



Active transmit antenna of SpainSat NG-I integrated on the satellite

The integration of the antennas for the second SpainSat NG-II satellite has also started, with delivery expected early in 2025.

Follow us



If you wish to update your preferences to Airbus Communications, media@airbus.com
If you no longer wish to receive communications from Airbus, media@airbus.com