

SPACE SYSTEMS

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Airbus Defence and Space awarded third contract in 18 months for advanced Gallium Nitride (GaN) satellite amplifiers

- GaN Solid State Power Amplifiers (SSPA) will be integrated in telecommunications and navigation satellites
- Airbus Defence and Space is a world leading manufacturer of GaN SSPAs

Airbus Defence and Space, the world's second largest space company, has won its third contract in 18 months for its latest advanced GaN SSPAs, bringing the total ordered to more than 350.

SSPAs on satellites are used to amplify the signals from the ground ready to be broadcast down to Earth. Signals such as television pictures beamed from Earth to satellites only have the same power as a Christmas tree bulb when they arrive in geostationary orbit. Satellites must then take the signal, clean it, and amplify it more than a billion times before rebroadcasting it so it can be picked up by small satellite dishes on Earth.

Investments leading to the development of the latest advanced GaN SSPA by Airbus Defence and Space was carried out as part of the European Space Agency's Advanced Research in Telecommunications Systems programme, which is supported by the UK Space Agency.

Designed for use in both communications and navigation satellites the innovative GaN based SSPAs have superior performance and 50% less mass per Watt of RF (Radio Frequency) output compared with previous generations of SSPA technology. The flight L-band SSPAs deliver RF power of 50W – 100W and are 15% more efficient than previous models. In laboratory demonstrations, the latest GaN SSPAs have produced RF power in excess of 200W in L, S and C-bands.

The GaN SSPAs provide high efficiency with excellent linearity in a small footprint and low mass as required by the market.

Charlie Bloomfield, Airbus Defence and Space's Head of Communication Products UK said: "These significant orders prove that the R&D investments we have made over the last few years are paying off, and that our latest GaN SSPA is a true world leader. Our experts are now looking at how we can further improve our design to give customers more power for less mass."

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About Airbus Defence and Space

Airbus Defence and Space, a division of Airbus Group, is Europe's number one defence and space enterprise and the second largest space business worldwide. Its activities include space, military aircraft and related systems and services. It employs more than 38,000 people and in 2015 generated revenues of over 13 billion Euros.

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