

## Cooperation Agreement Between TTTech and Airbus DS Signed

# TTTech and Airbus Defence and Space to Further the Use of TTEthernet in European Space Projects

Vienna, Austria and Bremen, Germany - October 8, 2014

TTTech, technology leader in robust networked safety controls, and European space market leader Airbus Defence and Space signed an agreement to bring the benefits of the fully deterministic and scalable TTEthernet products to the global space community. Under the guidance of the European Space Agency (ESA) Airbus Defence and Space will work with TTTech on the adaptation and qualification of existing TTEthernet products for space applications according to the regulations by the European Cooperation for Space Standardization (ECSS).

ECSS is an initiative established to develop a coherent, single set of user-friendly standards for use in all European space activities. While the joint work of TTTech and Airbus Defence and Space initially focusses on network interface cards, one of the objectives is the establishment of the capability to build and test complete TTEthernet networks (including qualified space-graded switches and complex ground testing equipment) in Europe. This promises to enhance the international competitiveness of the European space industry just at a time when the competitive landscape of the global space market is changing.

"We have been cooperating with TTTech since 2012 in a project funded by the German DLR which explores highly efficient on-board computing architectures for autonomous spacecraft and satellites, and we are now looking forward to extending this partnership by joining forces to foster the use of Deterministic Ethernet also in future launchers and in human space flight", explains Dr. Georg Willich, Head of Space Research and Development Germany at Airbus Defence and Space. "TTEthernet simplifies the integration and testing of complex space systems significantly."

"TTEthernet technology uniquely addresses crewed spaceflight requirements for safety, reliability and maintainability. Teaming with Europe's leading space company will provide key capabilities to offer its customers new levels of modular computing power and safety while further optimizing size, weight and power," says Matthias Maeke-Kail, Senior Marketing and Sales Manager at TTTech. "In short this partnership will allow Airbus Defence and Space and its customers to do more with less."

Time-Triggered Ethernet, the open standard for highly Deterministic Ethernet, was introduced to the global space market a few years ago when NASA decided to use Gigabit TTEthernet as avionics network in the Orion program. In 2012 NASA and ESA agreed on developing the service module for the Orion multi-purpose crew vehicle (MPCV) in Europe. This way Time-Triggered Ethernet (TTEthernet) will become more rapidly adopted in European spaceflight programs.



## **About TTTech Computertechnik AG**

TTTech Computertechnik AG is the technology leader in robust networked safety controls. The company's solutions improve the safety and reliability of networked electronic systems in the transportation and industrial segments. Our product portfolio offers best-in-class certifiable products according to IEC 61508, ISO 26262, EN 13849, DO-254 and DO-178B (e.g. based on TTP, AFDX and TTEthernet) requirements.

TTTech customers win as they deploy dependable networks and real-time controls more efficiently and profitably. Benefits include shorter time-to-market due to re-use of proven architecture and ease of system integration with reduced cost. The company's solutions further support highly scalable and modular open real-time architectures.

More information about TTTech is available at www.tttech.com

# **About Airbus Defence and Space**

Airbus Defence and Space is a division of Airbus Group formed by combining the business activities of Cassidian, Astrium and Airbus Military. The new division is Europe's number one defence and space enterprise, the second largest space business worldwide and among the top ten global defence enterprises. It employs some 40,000 employees generating revenues of approximately €14 billion per year.

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