

SPACE ELECTRONICS

Product Information

SPACE ELECTRONICS

Reliable, innovative, and cost-efficient laser electronics, instrument control units, remote terminal units, actuator drive units & sensors.

Solutions for your mission

We excel at designing analog and digital electronics specifically tailored to your specifications. Our expertise includes the development of

- Laser electronics
- Digital and data handling units
- Actuator drive units
- Sensors

One-off to series production

We serve the most demanding institutional missions as well as new space mega-constellations. Depending on your needs, we offer you existing solutions or ensure an efficient design optimized for your mission.

Heritage

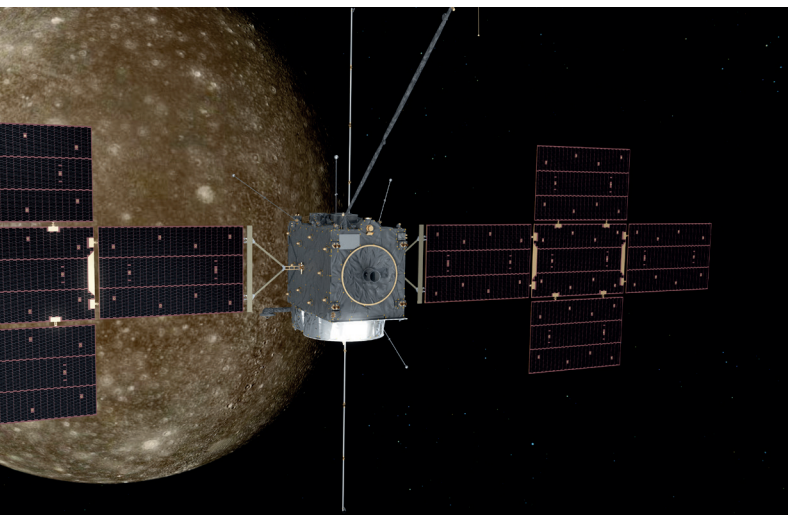
Our electronics are trusted by Airbus, ESA, DLR as well as several other customers worldwide, including major NewSpace players.

Examples of our flight hardware activities are ICARUS space segment, MERLIN Frequency Reference Unit, Grace FO LRI, IMECE Solar array deployment electronics, Galileo LVDS Adaption Unit, ROSE-L Instrument Control Module, LISA Laser Electronics, COMPASSO Iodine Control Electronics, JUICE Passive Filter for the Ultrastable Oscillator, and SADAS for several NewSpace Constellations.

SpaceTech electronics provide the performance and reliability you need in your space mission.

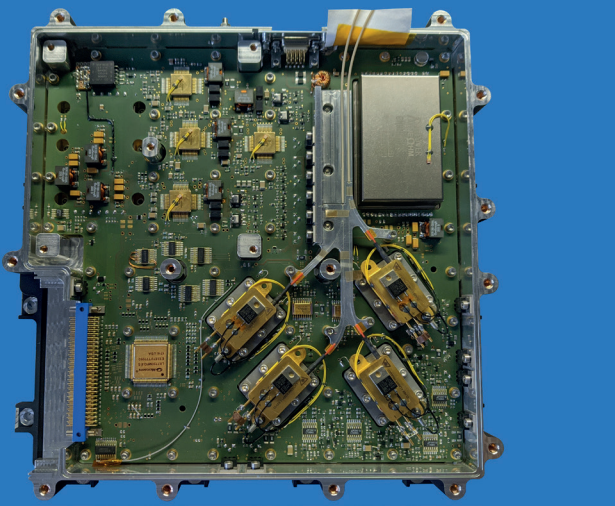
Juice flyby of Callisto artist's impression
(source: ESA, acknowledgement: ATG Medialab)

MERLIN climate satellite (source: CNES/Illustration D. Ducros)



Laser electronics

SpaceTech develops Laser Electronics for space and laboratory use, enabling laser technology with ultra-low noise, high speed, utmost precision. They are applied in the most demanding laser metrology and lidar missions.



SpaceTech Laser Head Electronics for LISA

Main functionalities include:

- Temperature control loops based on Precision Thermo-Electric-Coolers (TEC) for seed-laser, pump-laser and photodiode/output power
- Low noise modulated Laser Current Sources for seed-laser and pump-laser
- Acquisition of analog HK
- TM/TC-Interface (UART, SpaceWire or CAN)
- Drivers for EOM/AOM/Fiberswitches

SpaceTech ICM for ROSE-L

Are you interested in our existing components or in need of a new development? Please contact us!

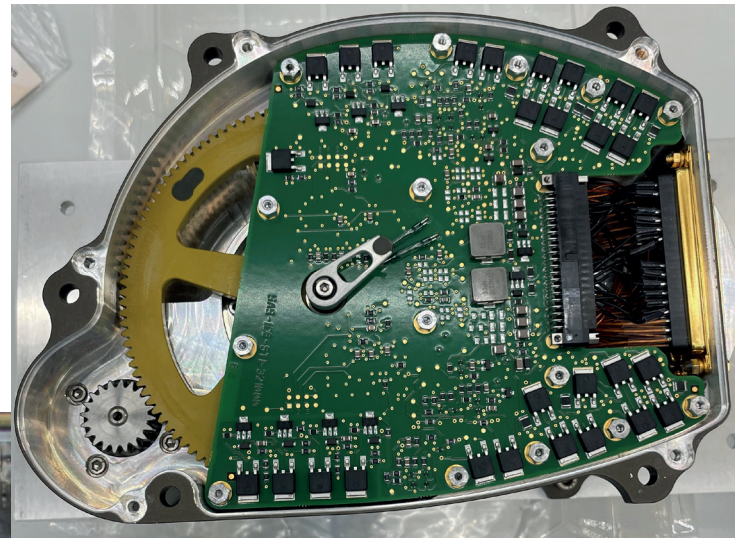
Instrument control modules and Remote Terminal Units

- Distribution of command and control data within the payload using digital interfaces like SpaceWire, CAN-Bus, UART, ethernet
- Acquisition of house-keeping data
- Digital and analogue preprocessing of signals and data
- Onboard time management and synchronisation
- Actuator and thermal control

Actuator drive units

SpaceTech designs, manufactures and tests high reliable, compact and cold redundant electronics to trigger actuators like thermal knives or nonexplosive actuators like (NEA) Our motor control electronics for stepper and BLDC motors are also part of the completely integrated SpaceTech solar array drive assembly (SADA).

SpaceTech SADA



SpaceTech (STI) is a privately owned company and independent from large aerospace companies. Located in Immenstaad, Germany, on the shore of Lake Constance, we are ideally situated in the center of a high-tech area together with several other aerospace companies and have access to a strong network of experienced suppliers. Founded in 2004, STI has developed into an established and well recognized medium size enterprise in the space industry.

STI offers a wide spectrum of products and services for space missions, from challenging prototypes for institutional science and earth observation missions to low cost series production for mega constellations. Our main capability is the design, development and manufacturing of innovative, high quality space equipment. Our products in particular include:

- Solar arrays, from body mounted to multi hinge solar array wings with SADA
- Photonic and quantum-optical instruments and components, ICARUS systems
- Satellite structures, deployment mechanisms, and electronics
- Small satellite system design, production, integration

Key to STI's success is our profound knowledge of satellite system and subsystem design which allows us to find smart solutions for each customer and mission from a holistic point of view. SpaceTech systems and equipment operate flawlessly on more than 660 satellites in orbit. We are known in the space industry for our straight-forward and pragmatic approach, tailored processes and robust in-orbit operation.

The momentum as a young and dynamic space enterprise with innovative ideas is a perfect match for many of the new space challenges. This is why SpaceTech attracts highly qualified personnel, many with long standing and exceptional experience in the space business but also young and highly motivated engineers and scientists. And this is why we can deliver you the best solution for your needs.

When can we launch your space vision?



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