

### Other Business Areas of Arquimea

1. ARQUIMEA Actuators Group is specialized in the development of low-shock non-explosive actuators for Space applications.



2. ARQUIMEA provides turnkey mixed-signal ASICs, covering the full supply chain from the definition of the ASIC specification in collaboration with the user up to the delivery of the qualified chip. This implies the establishment of a complete network of partnership with selected collaborators and suppliers for the different steps of the development and procurement of our integrated circuits.
3. ARQUIMEA's provides a wide range of IP related services, including feasibility studies, support to design and characterization, customization, integration, validation and test.
4. ARQUIMEA Sensors Group develops custom sensing systems in close cooperation with scientists. Spaceflight sensors always meet the need of the instrument as well as the constraints of the mission (environmental and quality).

ARQUIMEA is an Aerospace and Defence qualified supplier (UNE: EN 9100:2010, ISO 9001:2008)

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## Protec GmbH cooperation with Arquimea in Europe

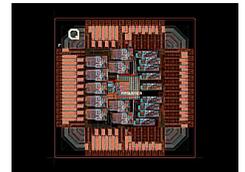
ARQUIMEA DEUTSCHLAND GmbH (ARQ-D) is a German fabless company with Headquarters in the Technology Park of Frankfurt (Oder), devoted to rad-hard mixed-signal microelectronics design mainly for aerospace applications.

The radiation-hardening capabilities of ARQ-D are based on the hardening of existing technologies by design. ARQ-D's design, radiation, test and space electronic systems experts' work together to define and apply the best solution for the hardening of microelectronics processes against the effects of the radiation (gamma rays, heavy ions, protons, electrons, neutrons) on the electronic components. In this way the ICs developed by ARQ-D are designed to be immune to electrical degradation by cumulated dose of gamma rays, latch-up, SEE, transients or displacement damage.



ARQ-D's Microelectronics Design Group is formed by engineers with a solid background in space electronics and microelectronics. The following capabilities can be highlighted:

- Design and development of digital and mixed-signal ASICs in accordance with ESA, NASA or MIL requirements.
- Digital back-end services.
- Design of Space-qualified FPGAs.
- Calibration and qualification of electronic parts and digital, analog and mixed-signal ICs for automotive, defense and space applications.
- Radiation characterization and test services on analogue, digital and mixed-signal devices.



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### RadHard Arquimea Standard Products

- ARQ-LVD001 (RadHard Quad 500 Mbps Bus LVDS Driver)
- ARQ-LVR002 (RadHard Quad 500 Mbps Bus LVDS Receiver)



Both parts above are **Pin to Pin Replacements for the Aeroflex / Cobham LVDS Drivers and Receivers UT54LVDS031LV and UT54LVDS032LV and the STM parts.**

- ARQ-LVT001 (RadHard Dual 500Mbps Bus LVDS Transceiver)
- ARQ-LVP001 (RadHard Octal 500 Mbps Bus LVDS Repeater)

All above Arquimera Standard parts will soon be on the ESA EPPL.