Data handling product suite
RTU, PLIU, ICU, ADE, SADE, APME, MCE

REMOTE TERMINAL UNITS (RTU)
/// Management of TM/TC control functions for platform user equipment
/// Multiple applications: science, exploration, telecom, navigation, Earth observation, orbital infrastructure

PAYLOAD INTERFACE UNITS (PLIU)
/// Discrete and serial TM/TC control for telecom payload equipment
/// Off the shelf product adapted to constellations
/// Flexibility for adaptations thanks to qualified building blocks

MECHANISM CONTROL UNITS (ADE, SADE, APME, MCE)
/// Actuator drive (ADE), solar array deployment (SADE), antenna pointing/deployment (APME/DCU), calibration mechanism (MCE)
/// Simultaneous control of multiple mechanisms, motors, rover wheels, ...
/// Deployment of solar arrays, instrument antennas, ...
/// Variety of control and monitoring techniques

INTERFACE CONTROL UNITS (ICU)
/// Complete management of observation & science instruments: TM/TC control, power distribution, thermal control, instrument operational modes, ...
/// Extremely flexible product to adapt to instrument specificities

COMPETITIVE ADVANTAGES
/// Recurrent products
/// Key supplier for commercial constellations and ESA missions with large flight heritage: more than 100 satellites spanning telecom, navigation, Earth observation, science, exploration and orbital infrastructure missions
/// Modular, scalable, compact, efficient solutions adaptable to different payloads, instruments and satellite platforms based on qualified building blocks.
/// Cost efficient solutions based on off-the-shelf optimized building blocks
/// Standard and specific TM/TC interfaces
REMOTE TERMINAL UNITS (RTU)

- Average power consumption < 6W
- Up to 700 I/O interfaces per unit

INTERFACE CONTROL UNITS (ICU)

- Average power consumption < 8W
- P/L thermal control (sensors & heaters)
- Large variety of qualified specific interfaces
- Serial configuration control of the Video Electronics Units

MECHANISM CONTROL UNITS (ADE, SADE...)

- Step by step motors controlled by micro-stepping or low power stepping techniques
- Angular acquisition by optical, potentiometer or magnetoresistive encoders

PAYLOAD INTERFACE UNITS (PLIU)

- Average power consumption < 6W
- P/L thermal control (sensors & heaters)
- Series production for constellations

PRODUCTS COMMON FEATURES

- Internal redundant flight unit configuration
- Failure tolerant design and radiation hardened
- Low power technology
- High level of integration
- Modular structure

EXPERIENCE

- Earth observation: Sentinel 1, 3 & 5, Pleiades-HR, Ingenio, very high resolution optical export missions and new Copernicus missions
- Telecommunication and navigation constellations: Globalstar 2, O3b, Galileo
- Exploration probes & rovers: ExoMars, Rosetta, Mars Express, Venus Express
- Space vehicles: ATV

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