THERMAL CONTROL SPACE APPLICATIONS



The Thermal Control Challenge

In Space, equipment is exposed to extreme thermal variations that could undergo the -180°C to +150°C temperature range. Failure to maintain equipment within the appropriate operating range, can lead to catastrophic consequences

Thermal Control Services



Structure athermalization

Designing structures that maintain dimensional stability despite temperature variations, critical for performance of optical and precision instruments



Active & Passive Thermal Control

Implementation of thermal straps, thermal coatings, multilayer insulation, heat pipes, and radiators to manage heat with or without power consumption



Design & Integration

From early design stages, to integration and testing, full architecture, LIDAX can support you during the whole road.



Technical Capabilities

Preliminary assesments

Manual calculations and initial thermal estimations.

Model reduction

Simplification to interface thermal mathematical models (ITMM) with minimal nodes.

Complex thermal modeling

Development of detailed thermal mathematical models (DTMM).

Complete system design

Comprehensive thermal control systems with boundary condition evaluation.

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THERMAL CONTROL SPACE APPLICATIONS



Standardized Thermal Control products

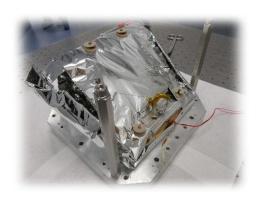
Copper Flexible Thermal Straps (CFTS)



✓ Graphite Flexible Thermal Straps (GFTS)



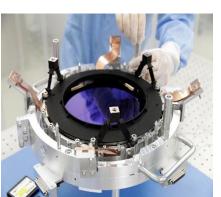
Multi-layer insulation



Radiator panels



Experience & Leadership



20+ Completed Projects

- MIRI Telescope simulator.
- RAMAN-LIBS ExoMars mission
- MIXS Bepi Colombo mission
- FPAs for PLATO mission

100+

Customers & collaborators

National & International Agencies, Scientific Institutions, Universities & Companies. 25+

Years of experience

Excellence and continuous innovation.













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