

ALTER

Extreme temperature condition facility

New space missions include more extreme requirements of storage, operational temperatures and vacuum conditions exceeding the standard -55 / +125 °C MIL temperature range conditions.

Miniaturization implies increased power dissipation and hence higher junction and PCB temperatures.

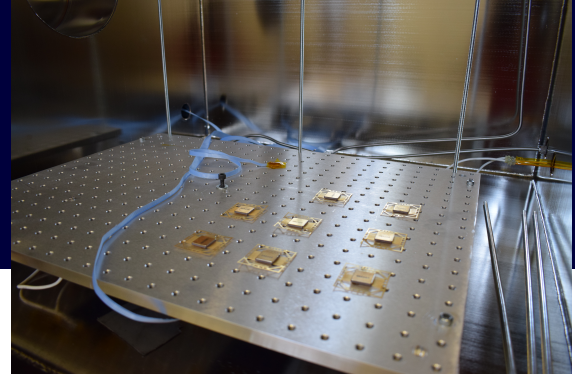
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Inspired by Knowledge



Specific activities at ALTER TECHNOLOGY

- Parts reliability assessment to ensure mission performance.
- Characterization of existing technologies under such extreme temperature conditions.
- Understanding of failure mechanism.
- Development of specific NEW parts for very extreme application.
- Assessment on new packages and assembly methods.



The updated facility comprises:

- 8 cryogenic chambers with a temperature range from -195 to +300°C
- Several dimensions available up to 90x50x35cm and ramps up to 40°C/min
- Additional 4 ovens up to 250°C
- Several vacuum space simulators developed in-house that can achieve a pressure below 10-7mbar within a temperature range from -195 to +250°C
- A dedicated climatic chamber that can archive temperatures between 70 to + 150°C and control the relative humidit
- Multiple feedthrough connectors so as to allow samples on line monitoring and power up including characterization of optical, electrical and RF parameters
- Custom thermal profile is available through dedicated in-house Labview based SW
- Total in-house management of all activities (boards design & manufacturing, biasing circuitry, testing, measurement, reporting, etc.)

Contact us

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