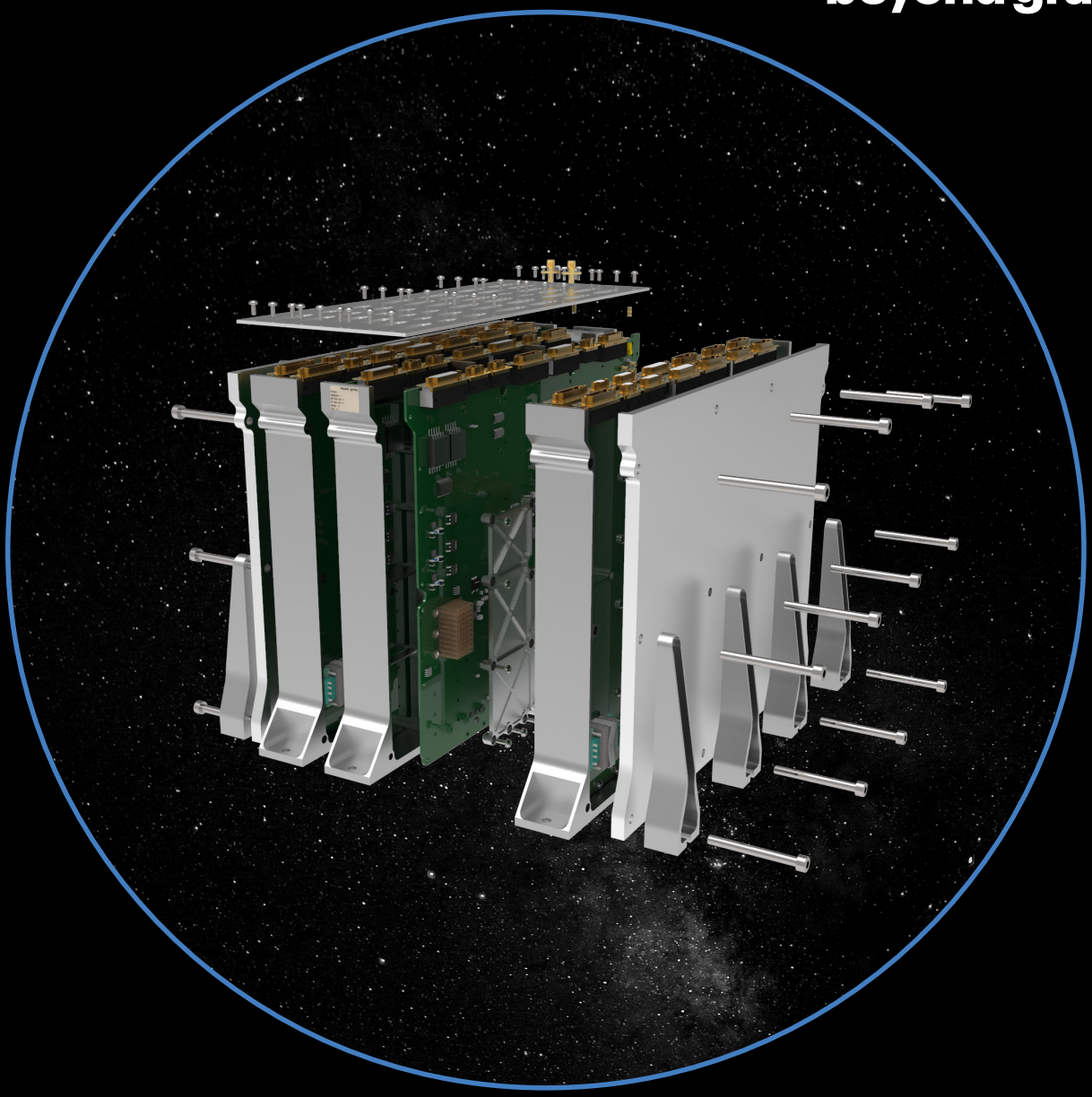
beyond gravity



PROPE - Chemical Propulsion board

The PROPE board for the cOBC* offer the capabilities to interact with a chemical propulsion system. The solution is entirely based on COTS technology while providing a highly reliable solution.

*** See dedicated cOBC Fact Sheet**

Key features

- Off-the-shelf solution available at short lead times and an attractive price point
- Fast and easy integration into the cOBC, at the quantity needed, using backplane-less solution
- Highly configurable in software
- Support for both redundant and single string solutions
- Manufacturing highly automated and optimized for large quantities.

Interfaces and Capabilities (per board)

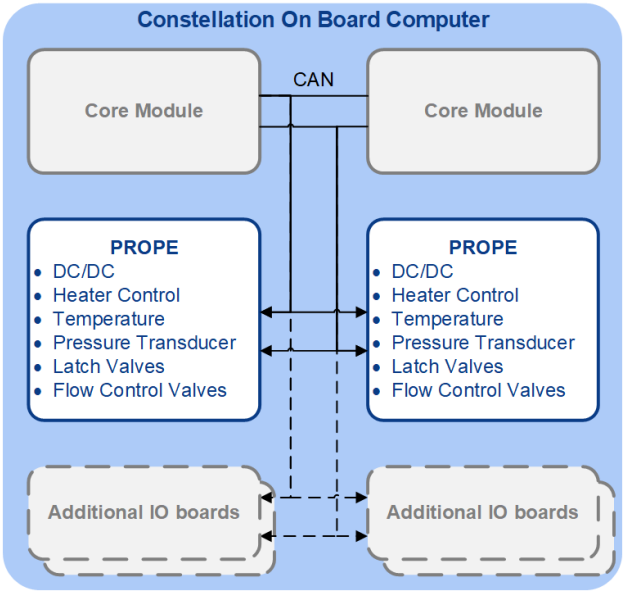
Bus Power		
Input	Unregulated 28V (22V – 38V)	Design prepared for 50V - 100V
Heater Control		
Output channels	16	
Max current	0.5A (TBC)	Unregulated
Temperature		
Input channels	20	
Supported sensor types	PT100, PT400, Thermocouples	Type configurable, additional can be supported
Pressure Transducer		
Input channels	4	
Input range	0V – 5V	
Supply channels	4	
Supply power	28V, up to 0.5A (TBC)	
Latch Valves		
TM status channels	4	2x on/off
Drive output channels	4	Unregulated
Flow Control Valves		
Output channels	16	
Max current	1A (TBC)	
Opening voltage	28V	Unregulated
Hold voltage	5V – 12V	Configurable

Radiation tolerance

- Latch-up free
- Component Total Ionising Dose > 30 kRad
- All orbits suitable (additional shielding for long mission time in challenging orbits)

Environment

- Temperature -20 to +60°C
- Random vibration 15g RMS
- Shock 2000g @ 2000Hz



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