ABSOLUT SYSTEM
INNOVATIVE CRYOGENIC SOLUTIONS

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# CRYASSY Edge

*Cryogenic assembly developed for high-performance Earth observation space applications.*

**CRYASSY Edge is a high-performance cryogenic assembly designed for demanding space applications.**

CRYASSY Edge consists of a compressor, a cryostat and a cold table for up to 4 detectors.

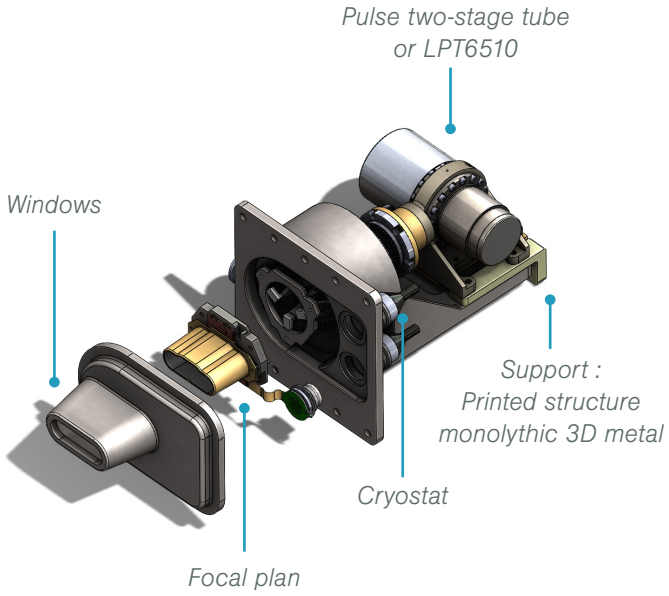
Thanks to its optimized thermal design, it can address all infrared bands, from SWIR to LWIR. Thanks to the mechanical decoupling of the cryogenic machine, the CRYASSY Edge offers very low vibration levels.

This cryogenic assembly is designed for missions combining high standards and controlled costs.

**Mid-space range:**
**high performance at low cost.**

- **Designed to integrate multiple linear or matrix detectors.**
- **Removable cryostat and stand, easy access to focal plane for assembly and alignment.**
- **Reduced interfaces thanks to integrated design.**
- **Pulse-Tube two-stage version for very low-temperature applications.**

## Simplified design




- **Infrared from SWIR to LWIR.**
- **Multispectral and hyperspectral observation.**
- **High cryogenic performance.**
- **Very low vibration.**

## Application fields

| | |
|---|---|
| **Environment** | Mapping of greenhouse gases, point sources of gas, biodiversity, water content of vegetation, fire detection. |
| **Geosciences** | Mineral mapping, mineral exploration. |
| **Agriculture** | Soil health, crop infestation detection. |
| **Insurance/Finance** | Natural disasters, crop forecasting. |
| **Urban** | Urban climate, air quality. |
| **Security & Defense** | Vehicle tracking, proximity detection, bathymetry, trafficability, activity measurement (military bases), target analysis. |

## Technical data

### Thermal characteristics

- Cooling capacity: 1 W @50 K
- Consommation: < 70 W
- Service life: R > 0,95 @ 60 000 h
- Operating T° range: -30°C ; 50°C
- Non-operating T° range: -40°C ; 70°C
- Adaptable window pulls and openings
- Possibility of integrating cold optics in the cryostat

### Mechanical characteristics

- Total mass: < 10kg
- Footprint: 415 x 265 x 205 mm