

# CRYASSY Access

Compact cryogenic assembly developed for Earth observation space applications.



CRYASSY Access is a cryogenic assembly comprising a Pulse-Tube LPT6510 and a cryostat, enabling the integration of one or more infrared detectors.

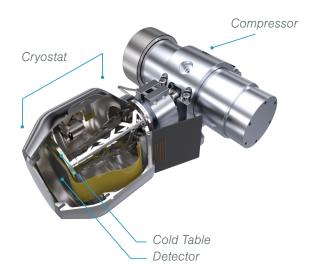
CRYASSY Access is a modular IDCA (Integrated Dewar Cooler Assembly) detector subassembly. The cryogenic assembly has been designed to accommodate a wide range of infrared detectors up to  $2K^2$  format at 15  $\mu$ m pitch.

CRYASSY Access has been designed for small satellites, enabling Earth observation from SWIR to LWIR. With its modular focal plane, it can address a wide range of applications, from multispectral to broadband hyperspectral instruments.

CRYASSY Access simplifies
the design of cryogenic infrared
instruments with its
integrated design and unique
mechanical interface.

# Some examples of compatible detectors: LYNRED Cobra Courtesy of Leonardo image LYNRED NGP

## >>> Simplified design



- ► Infrared from SWIR to LWIR.
- Adjustable draw and opening.
- ► Multispectral and hyperspectral observation.
- Numerous compatible welded and vacuumsealed detectors.

## >>> 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 datas

Mechanical characteristics  ► Total mass: 3.6 kg  ► Footprint: 181 x 104 x 264 mm  ► Low vibration level	<ul> <li>Electrical data</li> <li>Maximum cryocooler electrical power: 72 W</li> <li>► Electrical interface: micro-D jusqu'à 2 x 100 pins</li> </ul>
Thermal characteristics  ➤ Available cooling capacity: 1.2 W @ 57 K @ -12°C  ➤ Control stability: 10 mK  ➤ Service life: 10 ans  ➤ Operating T° range: -30°C; 50°C  ➤ Non-operating T° range: -40°C; 70°C  ► lonizing radiation: 30 krad	Sensor interface  ► Molybdenum cold table, Ø max. 68 mm  ► Sensors up to 2000 x 2000 pixels, 15 µm  ► Customizable opening and pull







