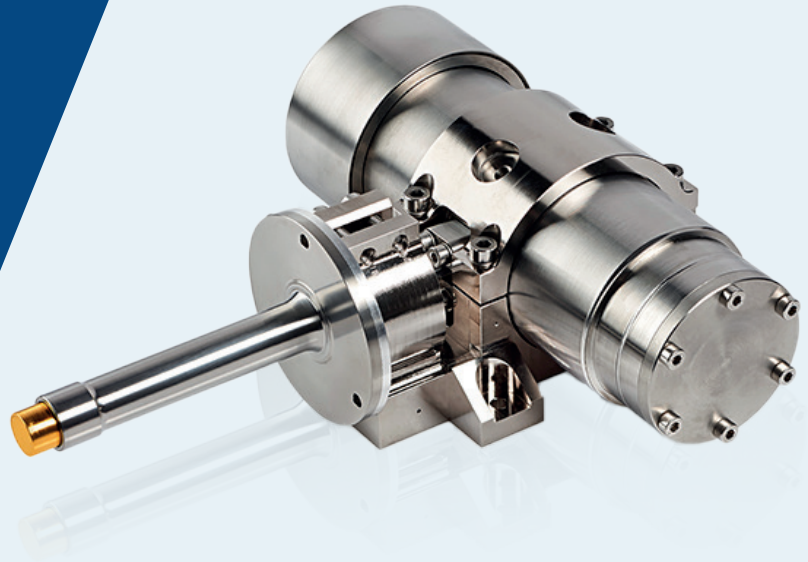


LPT6510 Pulse-Tube

The LPT6510 is a new-generation Pulse-Tube designed for space applications such as earth observation.



The Pulse-Tube LPT6510 is a small, high-performance cryocooler for operating temperatures of 60-150 K.

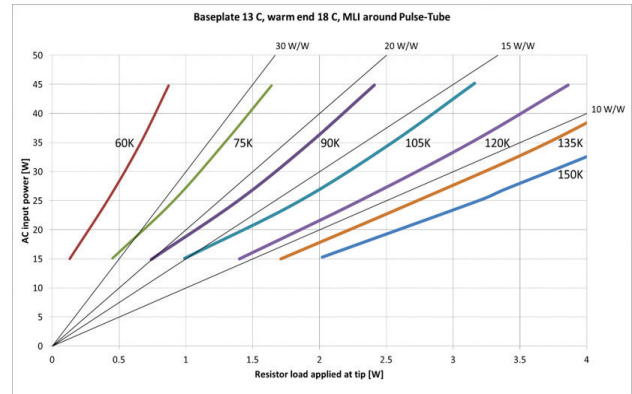
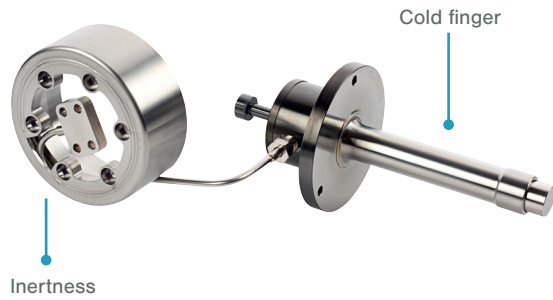
The result of a collaboration between Absolut System and Thalès Cryogenics B.V., the **Pulse-Tube LPT6510 combines the MPTC compressor and the SSC80 pulsed gas tube** (developed by Absolut System).

This cryocooler offers excellent efficiency for 60-150 K applications, proven reliability and reduced exported vibration levels. Recent developments have enabled the LPT6510 to be upgraded to an «all-welded» design, increasing robustness and reliability by eliminating screwed interfaces.

A specific version with a transfer line can be produced.

- ▶ **Reduced level of exported vibrations.**
- ▶ **« All-welded » assembly.**
- ▶ **Integral or split design.**
- ▶ **No launch pad for cold finger.**
- ▶ **Compatible thermal links (TRL 9).**

»»» Simplified design



Performance data

»»» Application fields

<p>Project TRISHNA</p> <p>Thermal infrared imaging satellite for high-resolution assessment of natural resources.</p>	<p>French Space Agency Mission (CNES) and Indian (ISRO).</p> <p>► Objectives:</p> <ul style="list-style-type: none"> • monitoring water status and stress in continental ecosystems. • monitoring of coastal waters, inland waters and the urban environment. <p>Applications to the cryosphere and atmosphere.</p>
<p>CRYASSY</p>	<p>Cryogenic assembly for direct integration of infrared detectors for SmallSat constellations.</p>

»»» Technical data

<p>Mechanical characteristics</p> <ul style="list-style-type: none"> ► Weight: 3kg ► Dimensions: 225 x 180 x 70 mm ► Low vibration level ► Service life: 10 years 	<p>Electrical data</p> <ul style="list-style-type: none"> ► Electrical power: < 20 W ► No launch support required 	<p>Thermal characteristics</p> <ul style="list-style-type: none"> ► Cooling capacity: 1.2 W @ 77 K @ 20°C 3W @80K @20°C ► Maximum cooling capacity: 3.2W @100K @20°C ► Cold temperature: 77K à 150K ► Operating T°: -30°C ; 50°C ► Non-operating T°: -40°C ; 70°C
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