Sapphire is a compact, high performance and extremely reliable cryocooler. It uses an integral free-piston Stirling cycle design and is currently being used to cool high temperature superconducting (HTS) materials in STI’s SuperLink® product—a high performance receiver used in the telecommunications industry.

Applications:

Sapphire can be used for a variety of applications where low cost, high reliability, high performance and long life are important or critical.

Some applications include, but are not limited to, the following:

- Computer CPUs
- Low noise RF receiver front ends

Performance:

- Weight: 6.2 lbs. (2.8 kg)
- Size: 3.6 in. OD x 11.8 in. Length (92mm OD x 300mm)
- Temperature range: -40°C to 60°C
- Cooling capacity: 5W @ 77K

Contact:

For pricing and availability contact:

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Measured Performance:

\[ T_{\text{reject}} = 72^\circ\text{C} \]

\[ T_{\text{reject}} = 42^\circ\text{C} \]

\[ T_c = 77K (-196^\circ\text{C}) \]