



ROCCOR'S THERMAL PRODUCTS

Product	Architecture	Heat Flux	Passive/Active
FlexCool	Heat Pipe	<10W/cm ²	Passive
FlatCool	Heat Spreader	>100W/cm ²	Passive
SmartCool	Pumped Two Phase	>100W/cm ²	Active
FlexTherm	Thermal Capacitors	-	Passive



10 cm x 10 cm FlatCool at 120 W



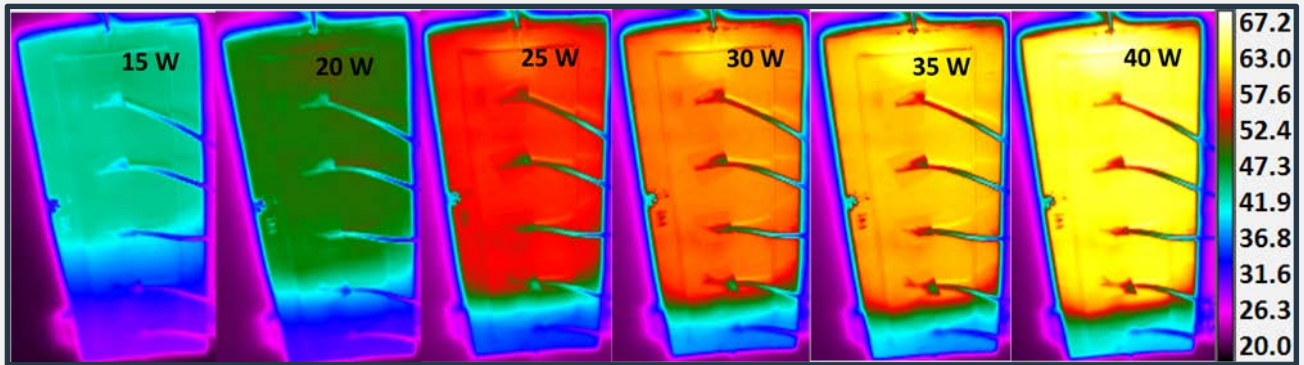
FlexTherm Panel

ENABLING TECHNOLOGIES

- Commercial off-the-shelf materials
- Scalable manufacturing methods
- Variety of fluids and phase-change materials for matching operating temperatures
- Surface treatments for improved wicking and boiling
- Advanced thermal analysis capabilities

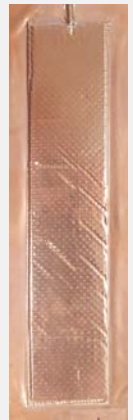


FLEXCOOL™ *Flat Heat Pipes for Small Satellites*



FEATURES

- 1 mm** ▪ Thin heat pipe, fits space constrained systems
- 10X** ▪ High effective thermal conductivity, up to 10 times that of copper equivalent
- 90%** ▪ Lightweight device, 90% lighter than copper equivalent
- 150 psi** ▪ Strong interlayer structure withstands high internal pressure



BENEFITS OF FLEXCOOL™ HEAT PIPE

- Can be tailored based on operating temperature, heat load and geometry
- Solution for designs in which thermal considerations were secondary
- Conformable two phase thermal management device
- Multiple heat loads on a single heat strap
- Uniform temperature distribution

