

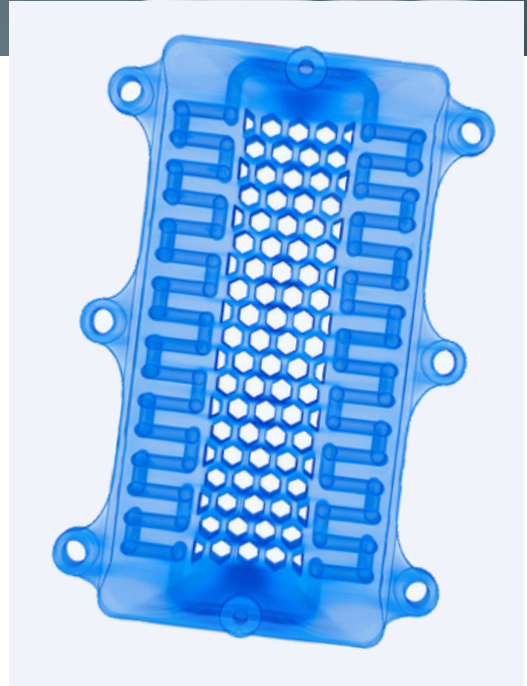
# THERMAL MANAGEMENT

## WHY THERMAL MANAGEMENT?

Aluminum is the most commonly used material when heat transfer functionality is required. It provides excellent thermal conductivity, is lightweight compared to other metals like steel or brass, and is corrosion resistant. Also infinitely recyclable, aluminum is an eco-friendly choice that promotes green manufacturing. Temperature control is a critical design element across multiple industries ranging from automotive, data centers, and industrial equipment to batteries. Thermal Management helps protect sensitive internal components from damage by dissipating excess heat.

## WHY ALLOY?

With the speed of innovative new designs, there's been an uptick in demand for liquid cooling solutions that reduce temperature rapidly. We offer high performance aluminum components with complex internal channels engineered for flow, pressure drop, and optimal thermal performance. Our fully-dense 6061 T6 material is durable with a high strength-to-weight ratio, has no porosity, and requires no additional assembly. Other applications include heat exchangers, heat sinks, casings, and housings with integrated cooling.



**Alloy**<sup>™</sup>  
ENTERPRISES

ACTIVELY COOL.

“

Heat transfer is critical to the performance of our products; **40% improvements become game-changers.**  
~Rob Martinsen, CTO/nLIGHT

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## THE ALLOY DIFFERENCE

Seizing the chance to bridge the gap between aluminum component demand and supply chain risk, we formed a skilled team with vast experience in manufacturing, engineering, and quality assurance. Our technology is a cost-effective, high-quality alternative surpassing traditional manufacturing methods. Alloy's unique **Stack Forging™** process produces components with superior material properties, optimized complex geometry, and better performance. More than a manufacturer, we're your development partner and trusted U.S.-based supplier helping to mitigate supply chain risk.

## CONTACT US

Schedule a design review today! Send us your drawings and models for evaluation.

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## FEATURES

- High Conductivity
- Channel Complexity
- Integrated Cooling
- Conformal Surfaces

## BENEFITS

- Customizable Design
- Quick Turn Iterations
- Reduced Assembly
- Optimal Performance

