

**CooliBlade SIRIUS**  
Ultra-Light Cooling Solution  
for High-power applications

## CooliBlade SIRIUS

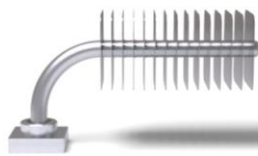
CooliBlade SIRIUS series is a robust and adaptable 3D cooling system, even for the most demanding high-power electronic products in natural convection applications.

SIRIUS cooling solution is optimal for a single large component or module cooling. It can be used, e.g., for SoC (System on Chip) components where high-performance cooling is mandatory. The cooling concept is lightweight and robust. It is suitable even for harsh outdoor applications, such as telecommunication base stations and antennas.

SIRIUS offers unique flexibility to make an accurate 3D design based on the customer's specifications. SIRIUS transfers heat efficiently over long distances, up to 500 mm if needed. The SIRIUS angle can be flexibly decided with the customer's electronics and mechanical design teams. Additionally, superior heat conductivity enables instant and even thermal dissipation from the component to the whole structure.

Getting familiar with the SIRIUS product family is possible with the two SIRIUS evaluation designs we built. The recommended cooling power level with a single SIRIUS is adaptable.

### SIRIUS evaluation designs



NEOpipes One-sided



NEOpipes Two-sided

### NEOcore

CooliBlade's compact and cost-effective NEOcore Thermal Channel enables fast, non-destructive, high-performance cooling technology for component, PCB and module cooling applications. The compact size, customizable modular structure, and outstanding performance enable NEOcore technology integration for various electronic applications.

NEOcore properties

- efficient evaporator which connects heat efficiently from the component to the heat sink
- extreme thermal conductivity in the thermal channel
- optimized condenser with fins to dissipate heat from heat sink to air
- Long heat transfer distance is possible

## Specifications

### Power levels

Hundreds of watts, depending on the customer specifications

### Thermal resistance

0.44 – 0.77 K/W

(Evaluation design values.

Can be designed to fit application specific requirements.)

### Use case

Components such as SoC

### Convection

Natural convection

## Key Benefits

- Extreme efficiency with free convection
- Easy to integrate
- Design freedom
- Ultra-light
- Possibility of transferring heat for long distances
- Cost-efficient

## How to begin?

CooliBlade has two reference designs for customers to get familiar with the SIRIUS product platform and make the first performance evaluations.

You can ask for the quote for the first proto, where the SIRIUS structure will be integrated with your custom mounting plate and dimensions. The proto development includes a free feasibility check, design, and thermal simulation with your requirements.

## Conclusion

SIRIUS product family is integrated thermal management solutions based on customer requirements. Unique 3D flexibility and CooliBlade's integrated aluminum NEOcore technology make NEOpipes products optimal for electronics cooling, where the local hot spots should be transferred instantly and dissipated to ambient air.