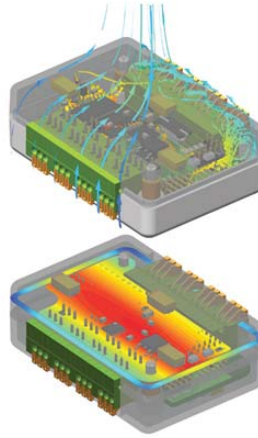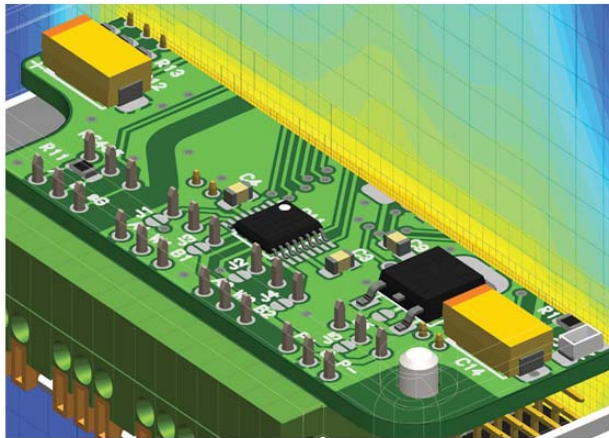# PADS FloTHERM® XT
Option for PADS

PADS FloTherm XT provides rapid thermal analysis of boards and packages.

MAJOR BENEFITS:

- A CAD-centric solution for thermal simulation
- Supports axis-aligned, angled, and arbitrary geometry
- Supports FloTHERM-style SmartParts and Library functionality
- Supports direct interfaces with all major MCAD vendors and all MCAD neutral file formats
- Automatic report generation via HTML, PDF, or Microsoft® Word

OVERVIEW

To create stable, reliable products, you must satisfy all high-speed, signal integrity, and manufacturing constraints and rules. Now, as electronics become even smaller, faster, and more densely packed, electrical engineers are forced to consider thermal aspects as well.

Physical testing is not always possible due to time and cost constraints and it's not always the best option. Relying on pure physical testing can result in missed schedules, low reliability, or increased product cost. With PADS® you can achieve the system thermal profile requirements quickly, easily, and at an affordable cost.

The PADS FloTHERM® XT option is an award-winning electronics cooling solution that can be used during all stages of the electronics design process, from conceptual design to manufacturing. Its high level of intuitiveness makes it equally accessible to engineers who 'do it all' and to full-time thermal analysis experts, for improved product quality, reliability, and time-to-market.

Intuitive SmartParts™ help you build a simple concept model in minutes, work with complex mechanical parts directly from MCAD, create your own CAD geometry easily and efficiently, and use detailed electronic assemblies from EDA.
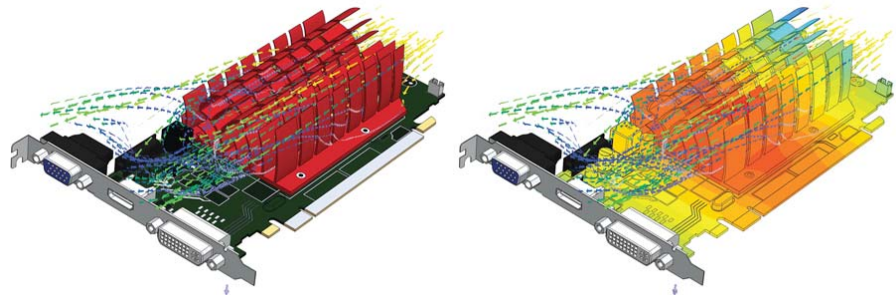
Mentor Graphics®

What is PADS FloTHERM XT?

PADS FloTHERM XT utilizes a powerful solver and mesher for extremely fast and effective electronics cooling simulations, working tightly with both MCAD and PADS design flows. You can work with non-Cartesian geometry to support non-standard form factors, novel heat sink designs, and arbitrary non-aligned and/or curved geometry. It also supports angled PCBs, radial blowers, and phase-change materials.

PADS FloTHERM XT offers CAD connectivity and advanced CAD modeling capabilities to considerably shorten the learning curve. Full geometric and non-geometric SmartParts and library capabilities provide access to a full set of the most popular components for fast and accurate model creation.
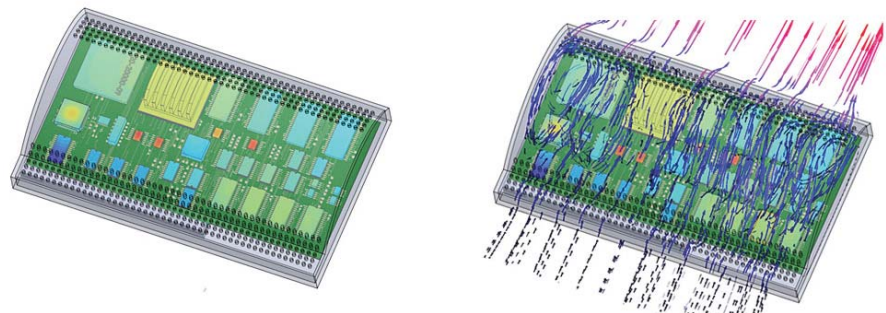
You can easily define, solve, and analyze results using parametric variations of geometry, attributes (e.g. material, thermal), and solution parameters to significantly enhance the design optimization process. Tight integration with PADS reduces time-consuming data translation and prevents costly errors. Any board and component layout can be easily modified for position, size, orientation, shape, and modeling level prior to import into PADS FloTHERM XT, making it the only solution enabling engineers to work effortlessly with geometry created in the MCAD or EDA world.

Internet Router Example

The surface temperatures on the PCB will quickly identify devices that are non-compliant with thermal specifications. Further understanding of the cooling performance can be achieved by examining the 3D flow field using the animated particle post-processing feature.

Graphics Card with Angled Geometry Example

High-end graphics cards require novel cooling solutions – in this case, a heat sink with curved geometry has been designed to fit the enclosure. Surface temperatures and 3D particle plots can be used to assess the effectiveness of the new heat sink design.

For the latest product information, call us or visit: w w w . p a d s . c o m

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