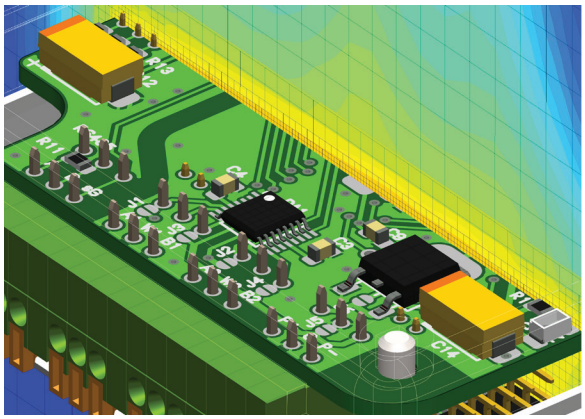
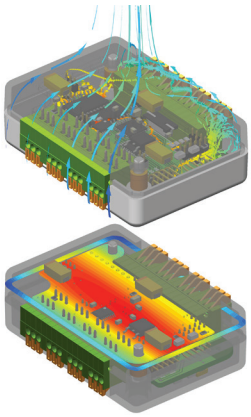
FloTHERM® XT

Leading Innovation in Electronics Cooling

Mechanical Analysis
Electronics Thermal Design

D A T A S H E E T





FloTHERM XT has been developed to facilitate electronics thermal design from concept to verification, with a consistent data model throughout and the seamless ability to import data from other mechanical design automation (MDA) or EDA sources as required in a particular design process. This design lifecycle support is inherent in FloTHERM XT's design and infrastructure: using SmartParts to 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.

In designing FloTHERM XT we have recognized that one size does not fit all and the software has a configurable user interface that can be used readily by both full-time thermal experts and by engineers for whom thermal is just one of their responsibilities.

What is FloTHERM XT?

Developed to complement FloTHERM, FloTHERM XT utilizes the powerful EFD solver and mesher as an enabling technology to give the broadest possible coverage of both simple and complex electronics systems. It is also delivered with CircuitWorks, an elegant and powerful IDF, PADS and ProStep import add-on. The software also introduces a new generation FloEDA Bridge module with a direct interface to Expedition Enterprise and includes a powerful update function to keep models concurrent with the latest board design as it evolves.

FloTHERM XT works with non-Cartesian geometry, supporting non-standard form factors, novel heatsink designs and with arbitrary non-aligned or and curved geometry. It also supports angled PCBs, radial blowers and phase change materials.

Who Can Use FloTHERM XT?

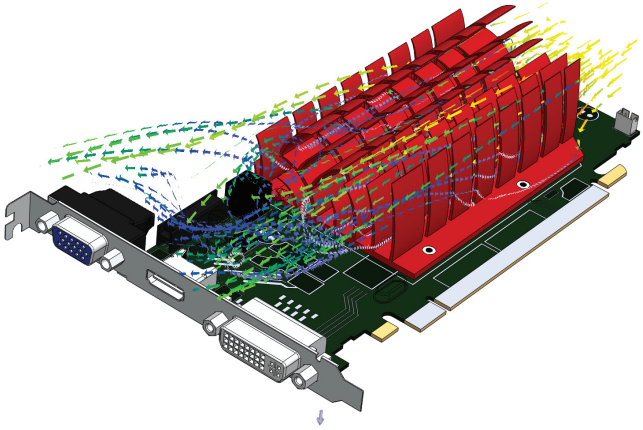
FloTHERM XT can be used by Thermal Design Specialists and Researchers, Thermal Designers and Mechanical Design Engineers / CAD users with Thermal Design responsibility. The user interface versatility has been specifically engineered to serve a diverse user group.

KEY FEATURES:

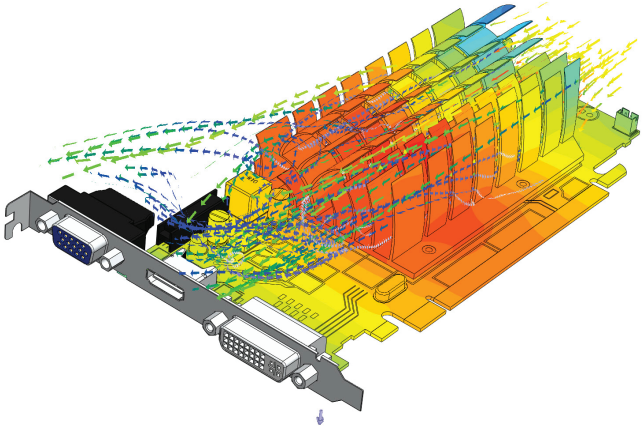
- A CAD centric solution supporting the electronics thermal sector, complementary to FloTHERM.
- Supports axis-aligned, angled and arbitrary geometry.
- An appropriate tool for design engineers familiar with MCAD environments, with a CAD Centric UI, geometry engine and controls.
- Supports FloTHERM style SmartPart and Library functionality.
- Supports the import of FloTHERM project and assembly data, as well as direct support for FloTHERM material libraries.
- Supports direct interfaces with all major MCAD vendors and supports all MCAD neutral file formats.
- The new FloEDA Bridge module supports Expedition Enterprise directly and includes an innovative update function to keep pace with evolving board layouts.
- Supports the import of IDF, PADS and ProStep data via CircuitWorks.
- Can leverage package libraries – detailed, 2-R or DELPHI - from www.flothermpack.com.
- Automatic report generation via HTML, PDF or Microsoft Word.
- Compatible with Windows XPx64, Windows 7x64 systems.

Mentor Graphics®

Graphics card with angled geometry

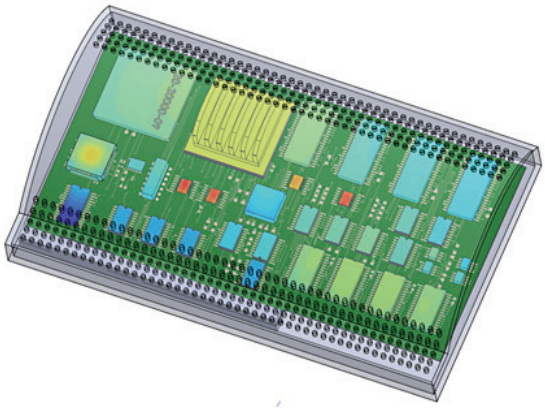


High-end graphics cards require novel cooling solutions – in this case, a heatsink with curved geometry has been designed to fit the enclosure.

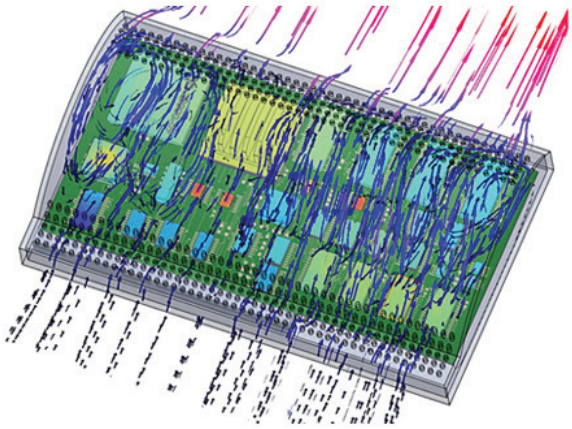


Surface temperatures and 3D particle plots can be used to assess the effectiveness of the new heatsink design.

Internet router



The surface temperatures on the PCB will quickly identify those devices which 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.

For the latest product information, call us or visit: w w w . m e n t o r . c o m / m e c h a n i c a l

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