

# FloTHERM® PCB

## Optimizing Collaborative PCB Design by Simulation

MECHANICAL ANALYSIS  
Electronics Thermal

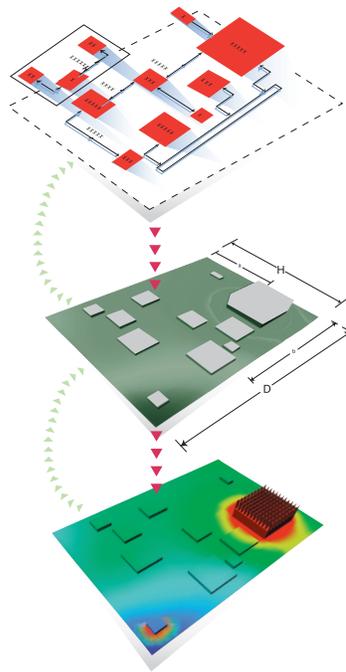
D A T A S H E E T

### Software for Collaborative Conceptual Design of Printed Circuit Boards

#### What is FloTHERM PCB?

FloTHERM PCB is a unique, new software program for streamlining concept development of printed-circuit boards (PCBs), whilst ensuring good thermal design and accelerating the PCB design process. FloTHERM PCB facilitates collaboration between product marketing, electronic engineers and mechanical engineers on PCB design, particularly during the conceptual phase of the design process.

FloTHERM PCB promotes a conceptual design process that is derived from the functional block diagram. Changes made to the functional block diagram are instantly reflected in the physical layout and thermal representations. This keeps all team members in sync and enables them to contribute to concept development in real time. The result is pre-optimized concepts in less time and drastic reductions in late-cycle rework as product marketing, mechanical, thermal and manufacturing issues are solved before concept commit.



#### Who can use FloTHERM PCB?

FloTHERM PCB is designed to be used by all those involved in the conceptual design of PCBs, including Product Marketing, Systems Architects, Hardware Designers, and Mechanical/Thermal Engineers.

#### Product Marketing:

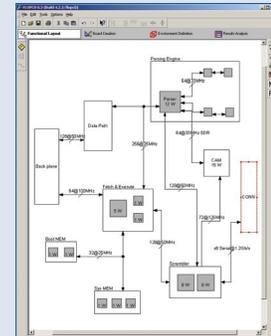
Interact with all members of the design team rapidly and effectively, viewing and commenting on design concept changes in real time.

#### Systems Architects:

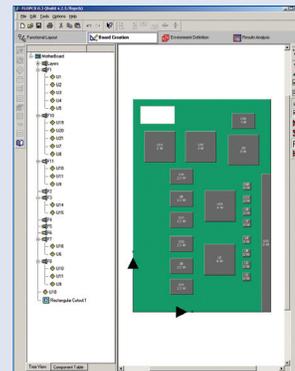
Stay in control of the conceptual design process with FloTHERM PCB. Create a functional block diagram rapidly, using software menus developed specifically for this task. Communicate instantly with product marketing, hardware design and mechanical/thermal engineers through graphical outputs and automatically-generated reports. One mouse click flips between functional block diagram, physical layout, and thermal performance views. If thermal questions arise, you can instantly transfer models to your colleagues for more in-depth analysis. Receive feedback more quickly and accurately than ever before as your colleagues work alongside you within the FloTHERM PCB design environment.

### THE NEW WAY

Electrical and mechanical engineers collaborate in real time with FloTHERM PCB



Create functional block diagrams ...



Derive physical layout rapidly ...



Predict airflow and temperature in minutes ...

## KEY FEATURES:

- Specialized menus for rapid creation of functional block diagrams
- Automatic creation of physical layout and thermal model from the functional block diagram
- 3D airflow and temperature prediction in minutes
- Fully-integrated library capability supporting JEDEC standards for component thermal models
- Leverage libraries from [www.flothermpack.com](http://www.flothermpack.com)
- Export/import board design information to and from EDA and CAD software via IDF file format
- Native bi-directional interoperability with FloTHERM
- Automatic report generation via HTML and/or Microsoft Word
- Compatible with WindowsXP, WindowsNT, and Windows2000 operating systems
- Recommended minimum hardware requirements: 512MB RAM, 300MB disk space
- [www.flothermpack.com](http://www.flothermpack.com) provides rapid generation of "compact" and "detailed" thermal models for IC packages, which can also be used directly in FloTHERM PCB

## Mechanical/Thermal Engineers:

With FloTHERM PCB, you finally have the software you need to provide critical feedback on thermo-mechanical issues in time to influence conceptual board design and layout. You will receive design updates from electrical engineering and product marketing in real time. When concept design is complete, you already have design information in a format that allows you to instantly start your detailed mechanical design in your CAD software, and your thermal design in FloTHERM.

## Hardware Design Engineers:

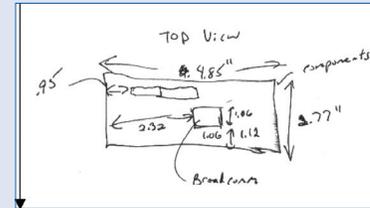
With FloTHERM PCB, you can influence concept development and find the right balance between concept and detailed design and manufacturing. At "concept commit" stage, you can export the final design information from FloTHERM® PCB directly into your mainstream EDA software.

## How does FloTHERM PCB save my company money?

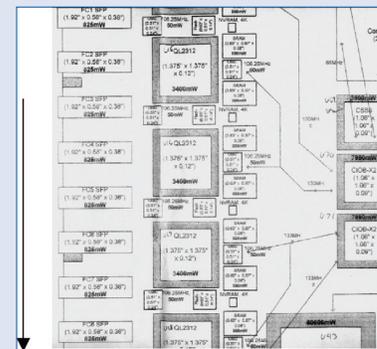
FloTHERM PCB saves your company money by addressing major inefficiencies in the board design process. On top of this, FloTHERM PCB minimizes the risk of board "re-spins" due to thermal problems. In a recent survey, 60% of mechanical engineers in electronics companies stated that thermal issues had forced board layout changes during the previous 12 months. Just one such re-spin costs many times the FloTHERM PCB license fee.

## THE OLD WAY

Disjointed communication slows design collaboration.



'Back of Envelope' drawing



'Back of Envelope' drawing

For the latest product information, call us or visit: [www.mentor.com/mechanical](http://www.mentor.com/mechanical)

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Corporate Headquarters  
Mentor Graphics Corporation  
8005 SW Boeckman Road  
Wilsonville, OR 97070-7777  
Phone: 503.685.7000  
Fax: 503.685.1204

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