pads
personal automated design solutions

PADS Standard Plus

Design for Manufacturing Analysis Option

Why In-house DFMA?

Subject	Design Organization	Supplier
Product costs	Minimize costs	Maximize profit
DFM trade-offs	Wants control of decisions	Wants control of decisions
Design revision spins	Wants to minimize/eliminate	Makes money off each spin
PCB design integrity	Wants PCB built as designed	Wants/needs to edit PCB designs for manufacturing processes
Communication	Expects full disclosure of edits	Will communicate as required
Component sourcing	Wants control for quality reasons	Wants control for costs/profit reasons

MAJOR BENEFITS:

- Finds manufacturing issues in designs prior to production
- Reduces production delays by minimizing "call-backs"
- Includes more than 100 of the most critical fabrication and assembly-related analyses
- Easy-to-use user interface

OVERVIEW

By integrating DFM analysis into your PADS® flow, you can minimize production issues, achieve fewer revision spins per design, and save time in your release schedule.

PCB manufacturers have different business goals than you do so it's critical that your design be prepared correctly for manufacturing before you send it to them. For example, fabricators who care more about their profit margins than they do about the long-term quality of your design may make design changes that expedite production without communicating them back to you.

To retain control over your design, it's essential to find and resolve problems such as resist slivers, unintended copper exposed by soldermasks, and improper testpoint-to-testpoint spacing during layout. By validating your PCB layout for fabrication and assembly before manufacturing, you'll save money and get your product to market more quickly.

GREAT RESULTS WITH PADS

"The benefits we've seen from using PADS include increased productivity, improved DFM and fewer design errors."

Source: TechValidate CA8-762-A42

The PADS DFMA option, available only with PADS Standard Plus, includes more than 100 of the most commonly used fabrication and assembly analyses, making it easy to identify issues that cause production delays. After performing critical net routing, you can also use PADS to analyze circuit integrity and timing and ensure that all design criteria are met before sending your board to manufacturing.

WHY USE DFM ANALYSIS?

Design for Manufacturing Analysis verifies the manufacturability of a design, as CAD and DRC tools doesn't detect all manufacturing issues.

With the PADS DFMA option, you can validate critical copper spacing and run manufacturing checks for thermal connect reduction, copper slivers, insufficient soldermask coverage, line neckdowns, testpoint density, silkscreens, extra solderpaste, component spacing validation, and more.

PADS comprehensive DFMA approach allows production release of your design while minimizing the possibility of manufacturing issues and resulting delays.

SYNCHRONIZE WITH YOUR SUPPLY CHAIN

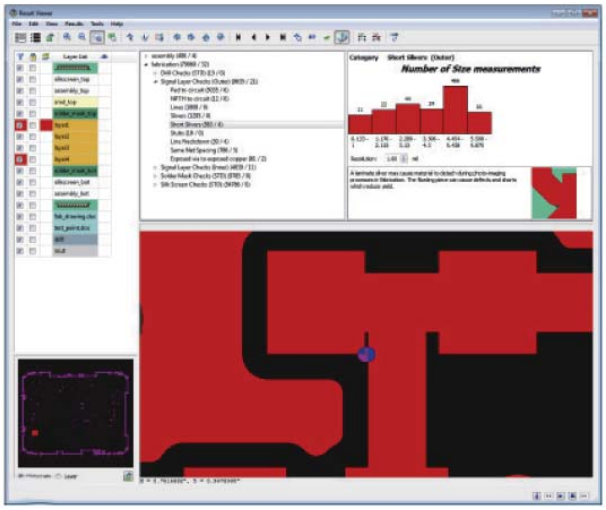
To ensure that your design is free of manufacturing challenges, you should perform the same analyses as your manufacturer. Not doing so can result in costly errors being missed.

Rooted in the same DFM technology used by most PCB fabricators and assembly organizations today, the PADS DFMA option adds manufacturing process rules to traditional design-rule checks by implementing your suppliers' manufacturing requirements. This ensures that you evaluate the productivity of your design prior to releasing it for production. Using PADS DFMA reduces manufacturing delays and design spins, and creates higher-quality designs.

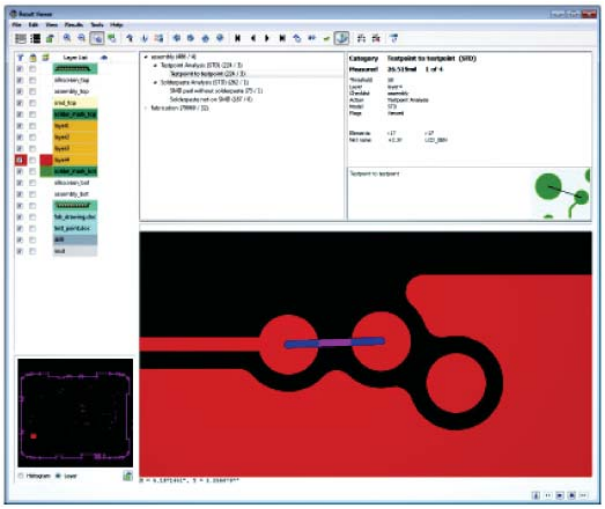
MANUFACTURING REVIEW

Before your design enters the prototype stage, you can quickly process it through an automated fabrication, assembly, and test verification to help you find and fix design issues that would result in increased manufacturing costs or lower yields.

Problematic manufacturing conditions are simultaneously reviewed within PADS as part of the layout creation process, making it easy to locate and correct manufacturing challenges at the source. Once corrected, PADS moves to the next potential manufacturing challenge for quick resolution.



Use DFM analysis in the PADS flow to identify assembly and test challenges before they can cause challenges during production.



Adding DFM analysis to PADS Standard Plus improves fabrication yields by identifying correctable resist slivers, copper neckdowns, and inferior power connections.

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

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