

HyperLynx Power Integrity

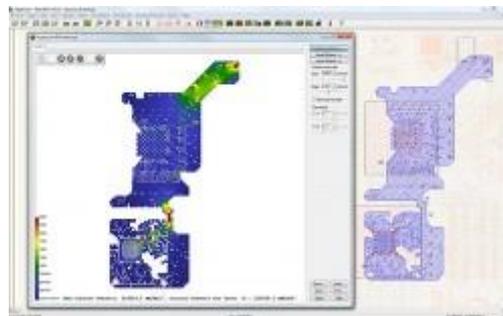
Accurately model power distribution networks and noise propagation mechanisms throughout the PCB design process

Overview

HyperLynx® PI identifies potential power integrity distribution issues that can interfere with board design logic, and investigate and validate solutions in an easy-to-use, “what-if” environment.

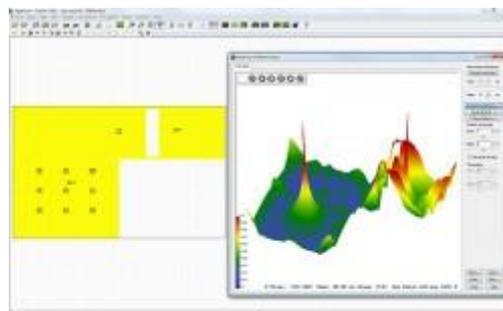
This intuitive tool gives any member of your design team the ability to quickly and accurately analyze power integrity, without the usual steep learning curve of most power analysis products.

Design team access to these sophisticated power integrity capabilities will help companies reduce prototype spins, shorten time to market, and allow engineers to develop more reliable products.



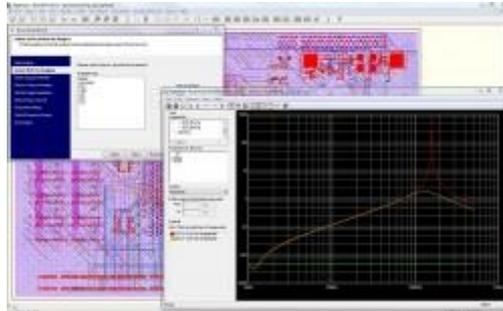
Analyze voltage drop

Identify areas of excessive current density in your layout



Simulate IC switching noise

HyperLynx PI lets you simulate the effects of IC switching noise as it propagates throughout planes and vias



PDN impedance profile validation

HyperLynx PI facilitates PDN impedance validation across the full operating frequency range

Technical specifications

- Industry-renowned ease of use, enabling shorter time to results
- Accurate modeling of plane structures as power delivery and noise propagation mechanisms
- Analyze voltage drop and current density
 - Identify potential DC power delivery issues such as excessive voltage drop, high current densities, excessive via currents, and associated temperature rise
 - View simulation results in graphical and report format, making problems in DC power delivery quick and easy to identify
- Predict temperature rise with PI/thermal co-simulation
- Analyze and optimize your power distribution network
 - Analyze power distribution impedance at multiple locations on PCB
 - Optimize capacitors use, placement, and mounting in your PDN through analysis
 - Virtually investigate the benefits of new technologies on your PDN, and how impedance will affect the propagation of noise on the planes
- Explore different stack-ups, capacitor selections, placements, mounting schemes
- Simulate propagation of noise throughout the planes from IC supply pins and signal vias
- Extract models of the power distribution network
- Create accurate via models which include effects of all bypassing and plane resonances
- Extract PDN models as S-parameters, Z-parameters, or Y-parameters

