



The Cadence Sigrity Products

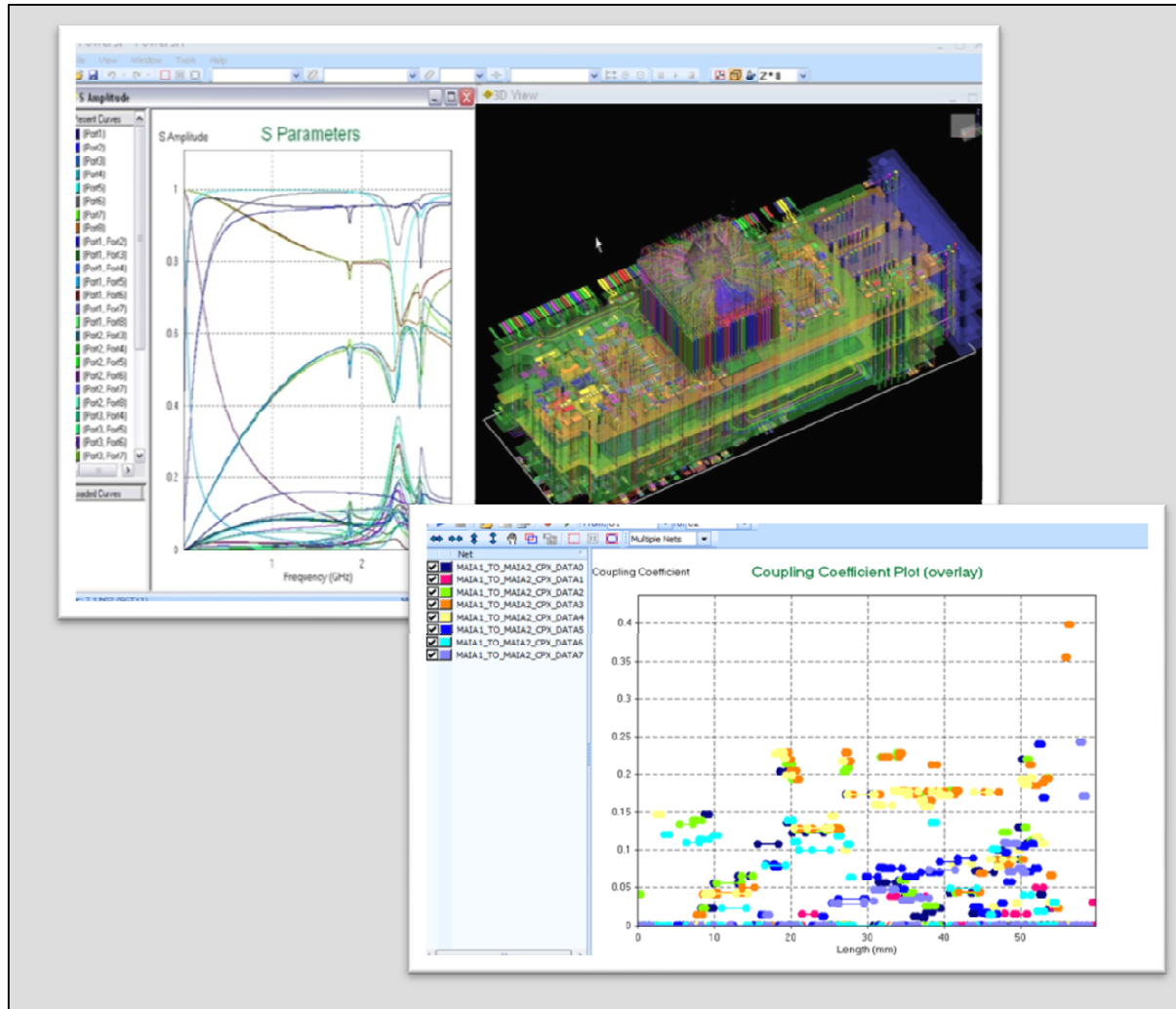
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19.11.2012.

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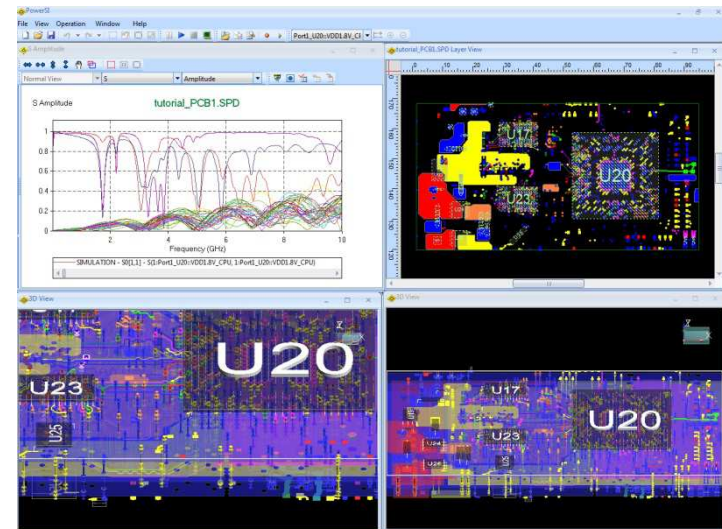
PowerSI



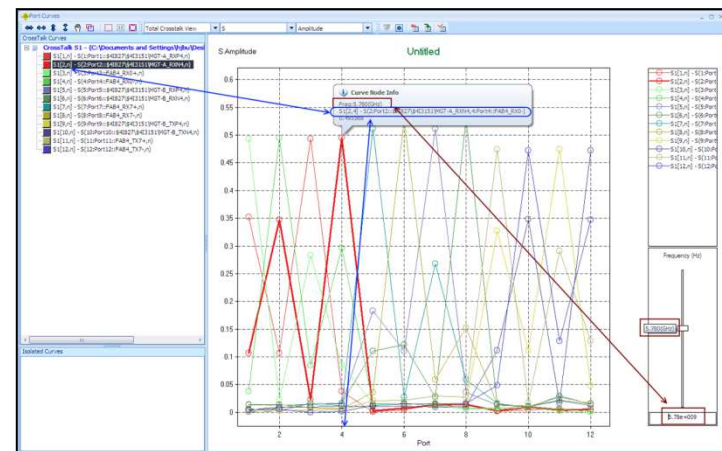
PowerSI is an advanced signal integrity, power integrity and design-stage EMI solution. Supports S-parameter model extraction and provides robust frequency domain simulation for entire IC package and PCB designs.

PowerSI Primary Advantages

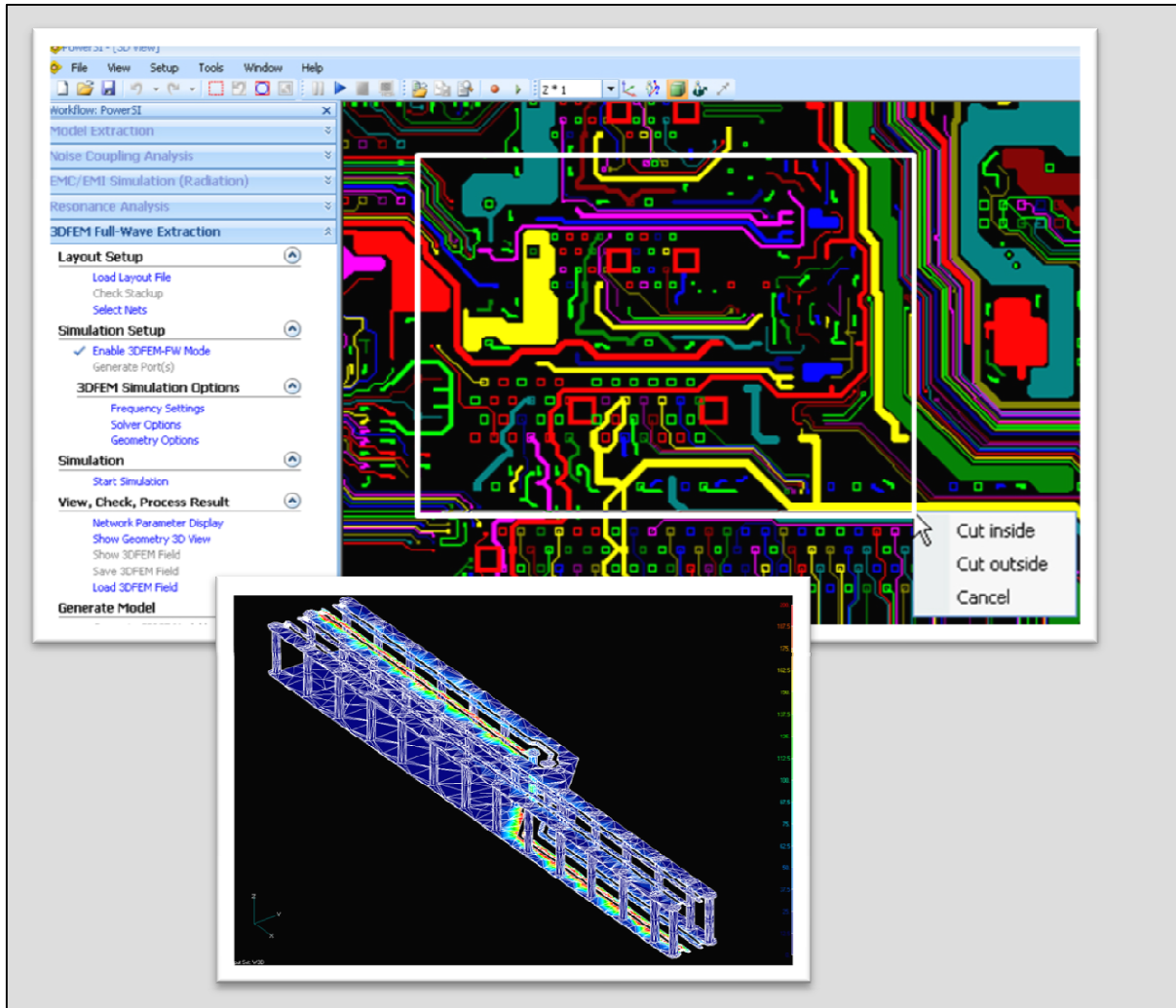
- ✓ Market leader and product of choice of companies where power integrity is essential
- ✓ Highly accurate modeling of layout structures
- ✓ Ability to handle general n-terminal component models
- ✓ Unique capability for ensuring accuracy down to DC (patent pending)
- ✓ Targeted workflows to streamline operations
- ✓ Integration with 3D solution



Frequency domain SI, PI and EMC



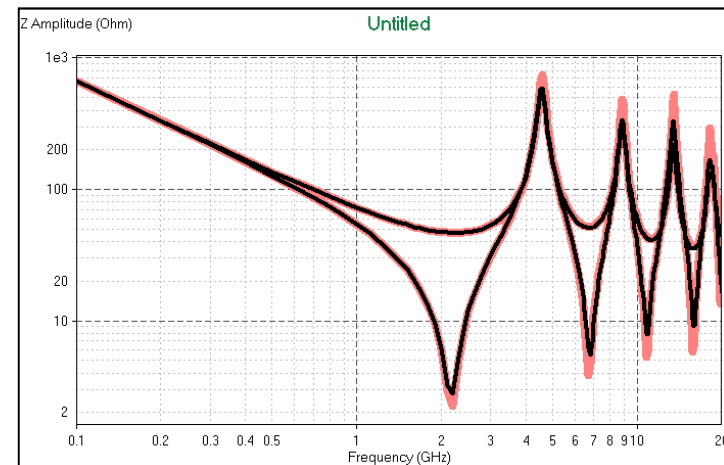
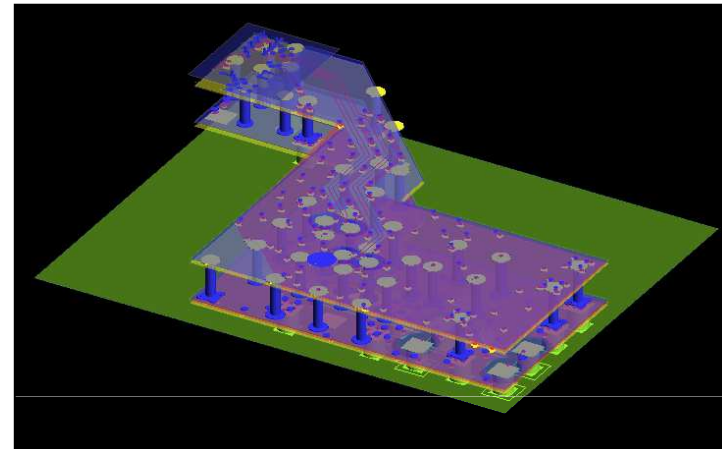
PowerSI 3D



PowerSI 3D EM provides full-wave solver capability inside PowerSI for accurate analysis of complex 3D structures. The software is tailored to IC package and PCB structures. Adaptive meshing assures accuracy combined with fast simulation time.

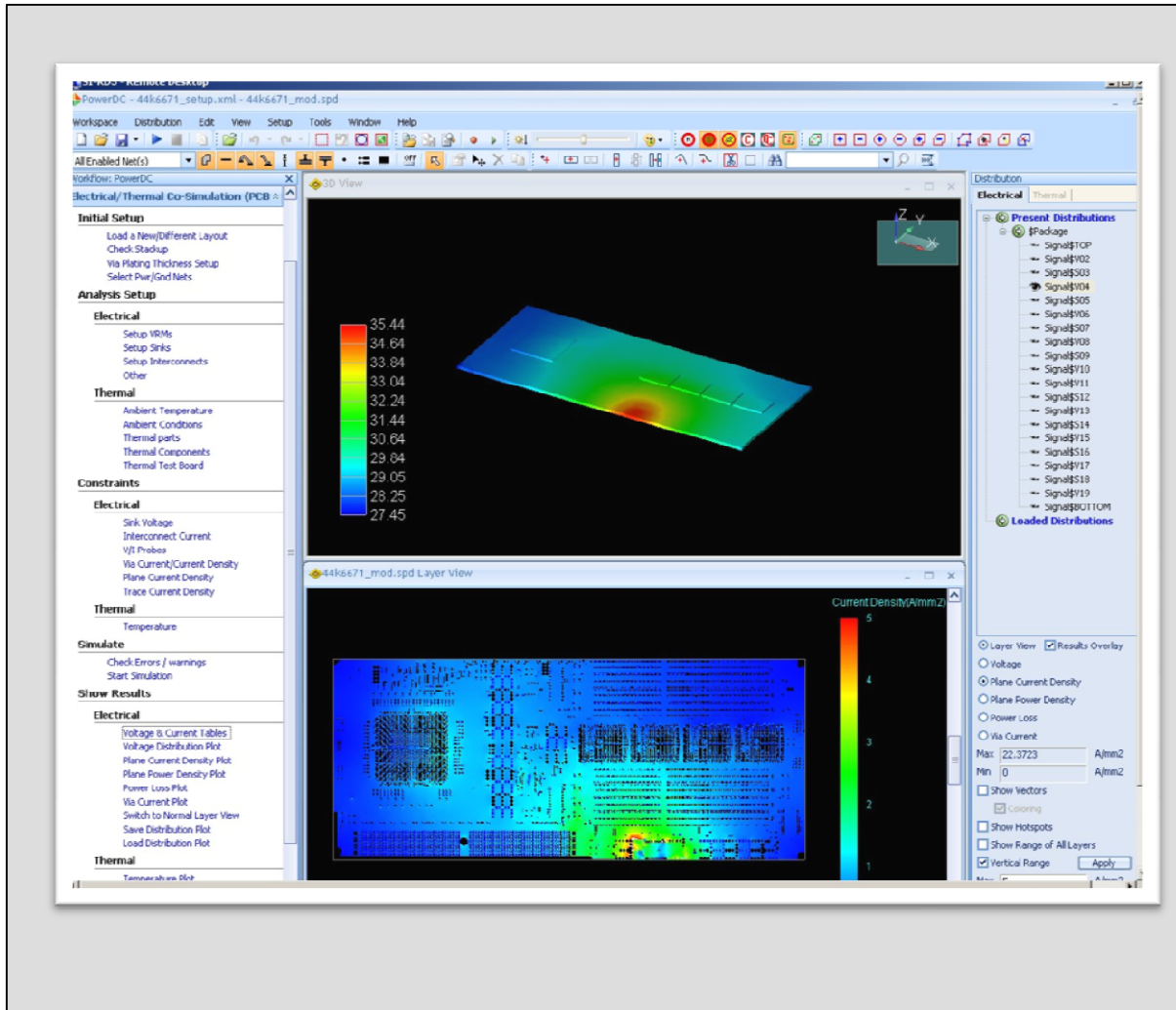
PowerSI 3D FEM Primary Advantages

- ✓ Much faster than other commercial 3D tools with comparable accuracy
- ✓ Highly accurate low frequency solution (ex. lower than few MHz)
- ✓ Easy to use with geometry modeling and automated port setup
- ✓ Reliable frequency sweeping solution with no time-consuming point-by-point simulation.
- ✓ Integration with PowerSI hybrid solver technology



Differential pair in 6 layer package

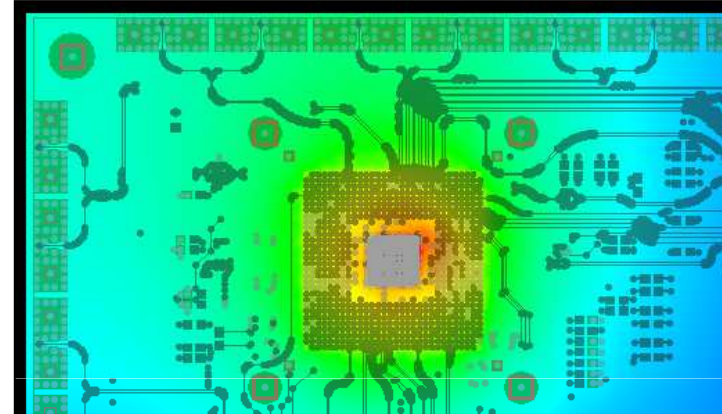
PowerDC



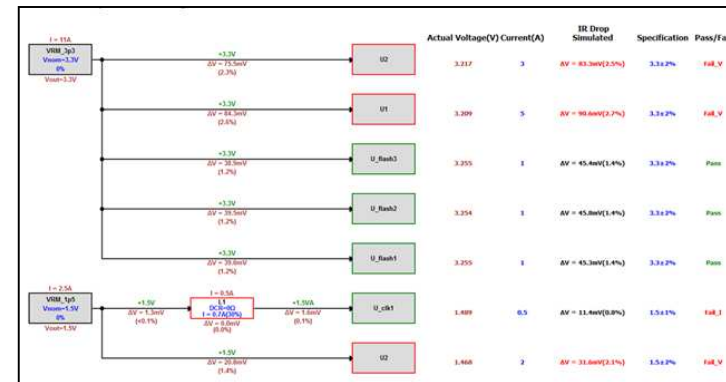
PowerDC is an efficient DC sign-off solution for IC package and PCB designs with electrical / thermal co-simulation to maximize accuracy. IR drop and current hot-spots are quickly pinpointed. Best remote sense locations are automatically found.

PowerDC Primary Advantages

- ✓ The first and only integrated and automated electrical and thermal co-simulation for PCBs and packages
- ✓ Patented time saving automation for remote sense line positioning
- ✓ Fastest and most accurate IR drop solution
- ✓ Broad range of visualization options for rapid design improvement
- ✓ Unique block diagram results visualization supporting what-if updating

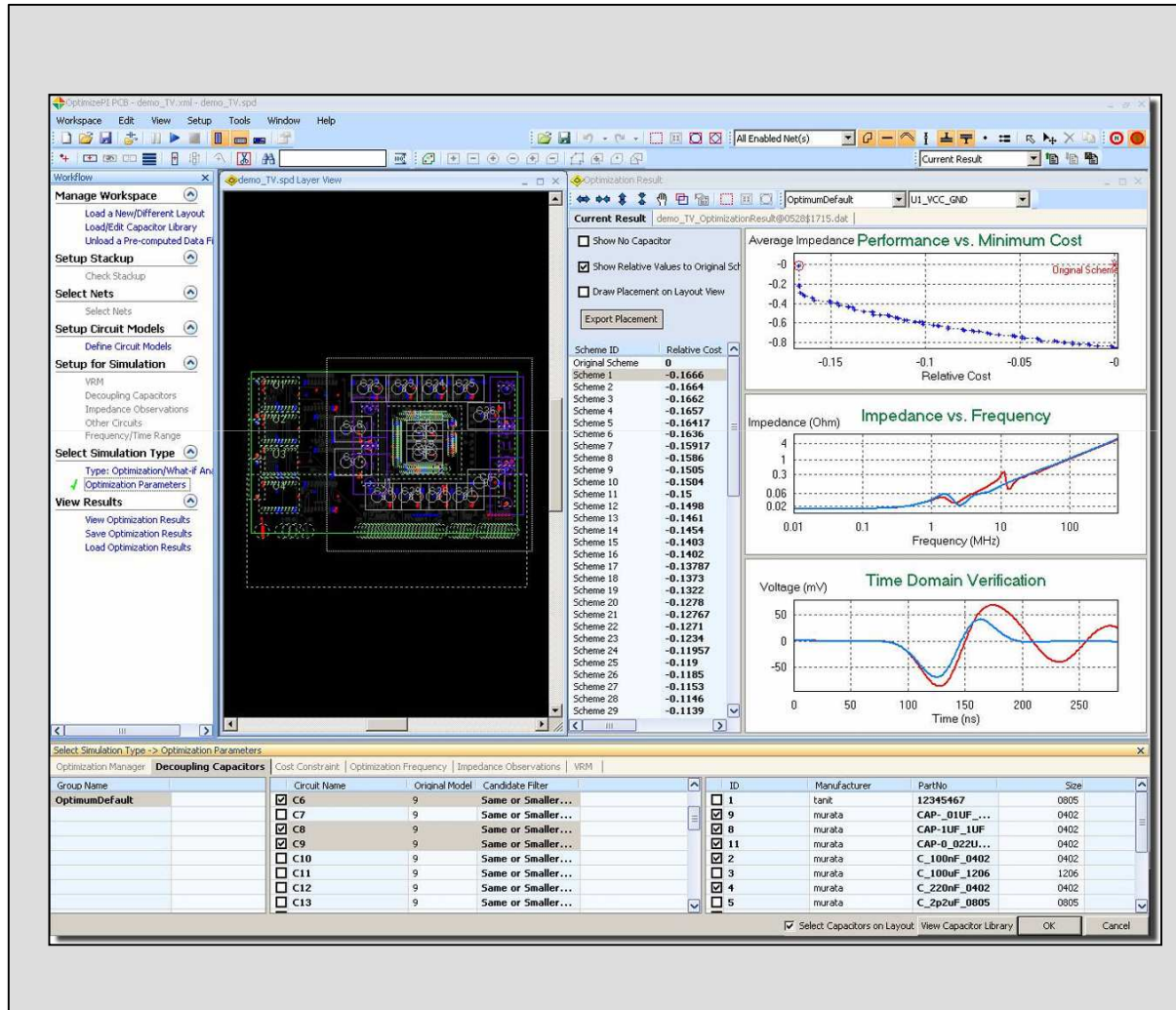


Current density & temperature



Power DC block diagram view

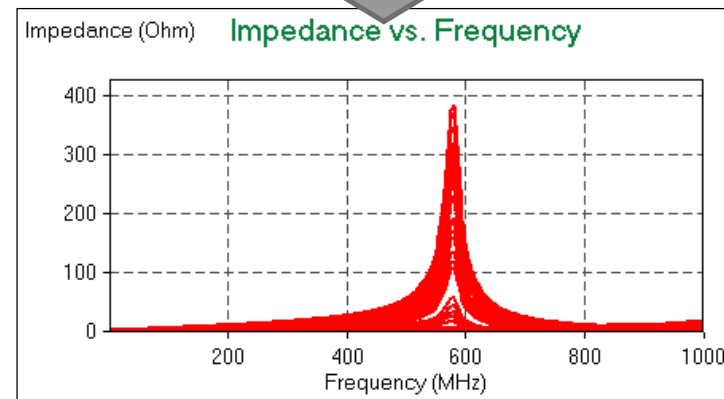
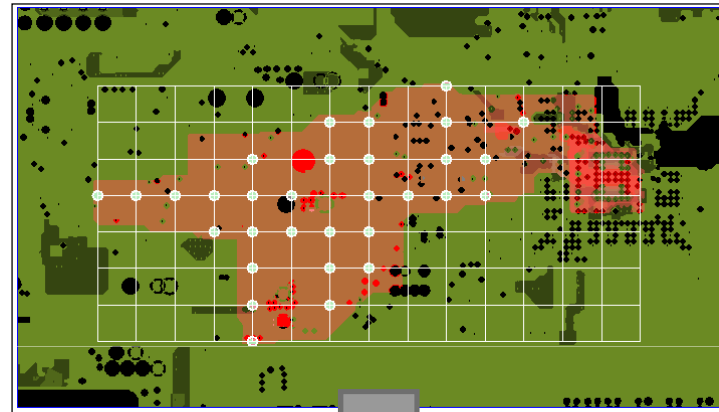
OptimizePI



OptimizePI is a highly automated board and IC Package AC frequency analysis solution. Supports pre- and post-layout decap studies and identifies impedance issues. Decap implementations are optimized for performance and cost.

OptimizePI Primary Advantages

- ✓ Automated decap optimization and verification features
- ✓ Clear presentation of economic benefits from decap optimization
- ✓ Flexibility in meeting targeted objectives (performance, cost, area ...)
- ✓ Easy-to-use AC analysis environment.
- ✓ Unique device impedance and EMI resonance checking
- ✓ Support for early-stage studies and post-post layout verification



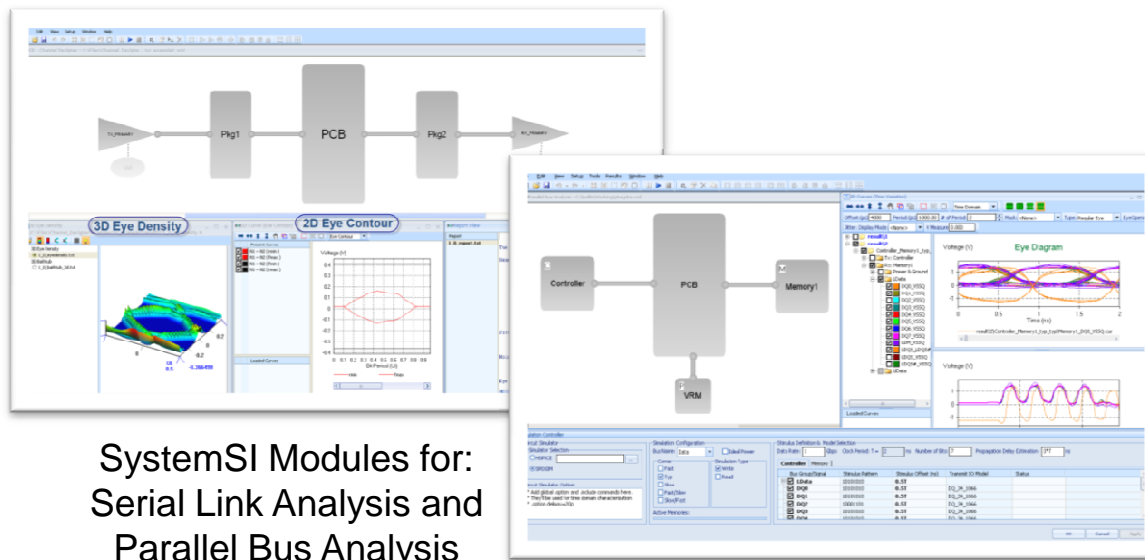
*Automated positioning of EMI
decaps*

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Channel Analysis Products

End-To-End System Level Analysis

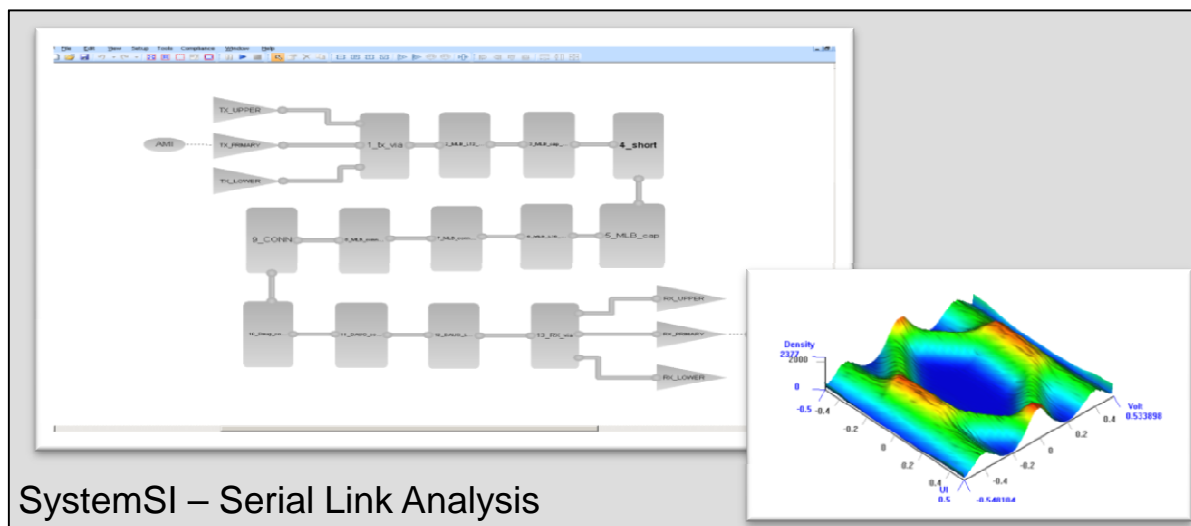
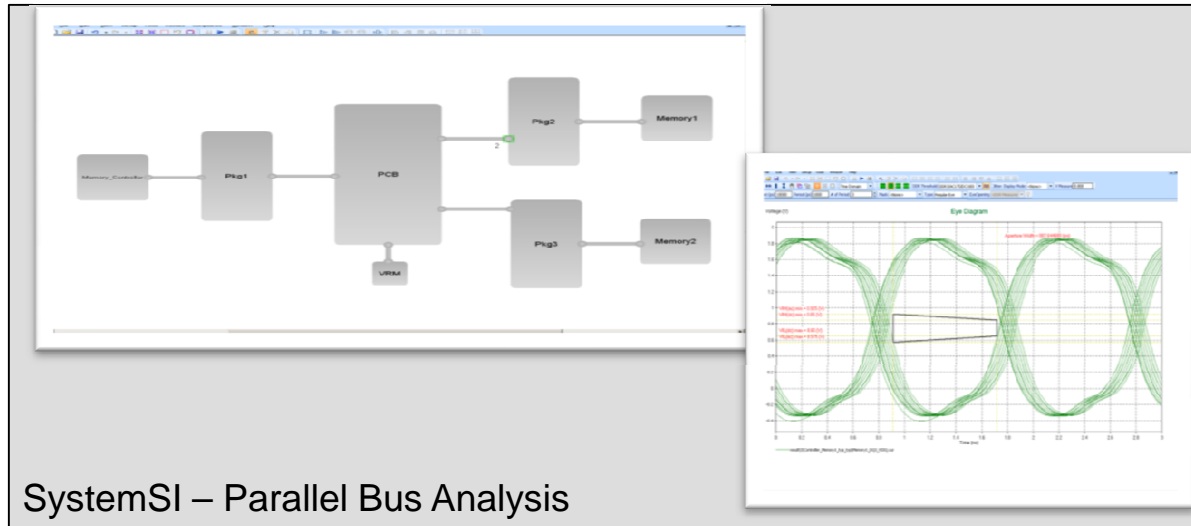
System level analysis:
Die-to-Die high speed channels and buses



SystemSI Modules for:
Serial Link Analysis and
Parallel Bus Analysis

Task focused signal
integrity solutions
primarily focused
on end-to-end
interface analysis
(ex. DDR, SerDes).

SystemSI

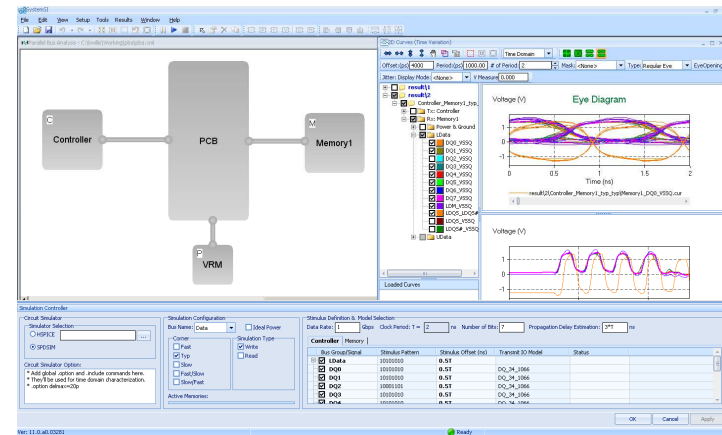


SystemSI is a comprehensive and automated signal integrity environment for the accurate assessment of high-speed chip-to-chip system designs. Ensures robust parallel bus and serial link interface implementations.

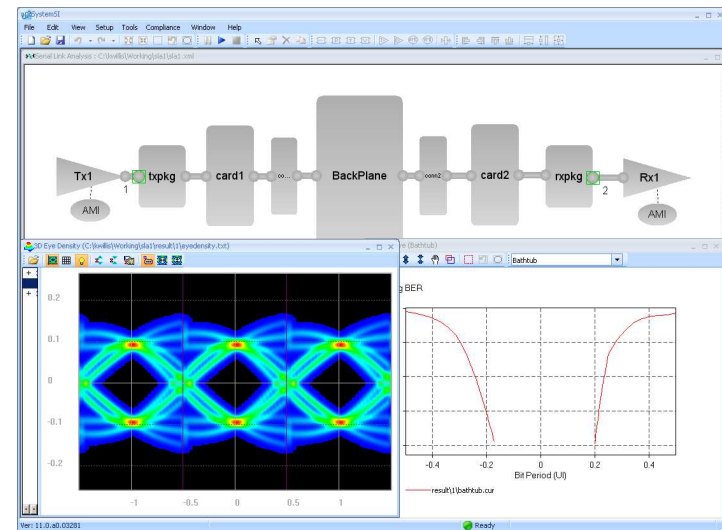
SystemSI Primary Advantages

(EDN Top Product 2010)

- ✓ Fastest, most advanced channel simulation engine
- ✓ Simplified model connections with Model Connection Protocol (MCP) and block-wise editor
- ✓ Highly automated measurement and reporting capabilities
- ✓ Unique AMI IP library for model generation
- ✓ Clear linkage between schematic model and physical layout
- ✓ Early studies supported with accurate 3D FEM based Via Wizard



Above = DDR / Below = Serial Link





Thank You



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