

# BOOST DESIGN PRODUCTIVITY WITH ALTAIR'S ELECTRONICS SOLUTIONS

From chip to board to system, Altair has the industry's most comprehensive suite of design, simulation, debugging, and HPC solutions. Streamline development, eliminate costly design iterations, and ensure design perfection from the start with best-in-class tools for electronics.

## Streamline Chip Design

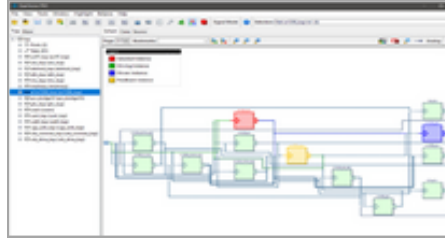
Design advanced semiconductors with RTL, gate-level, and analog circuit simulation, while optimizing 3D IC packaging and reliability using multiphysics tools.



### Altair® DSim™

Digital simulator for verification of ASICs, FPGAs, and semiconductor designs.

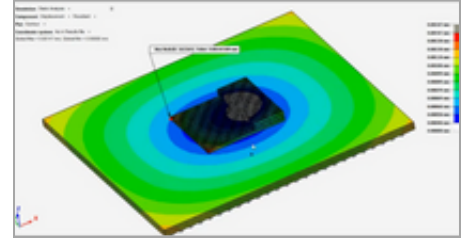
- Performance on par with the "big 3"
- Supports Verilog, System Verilog, VHDL, and UVM
- Run on-premises or in the [cloud](#) for flexible, concurrent simulations
- Easy simulation and job orchestration



### Altair® Silicon Debug Tools

Quickly debug RTL-level, gate-level, and SPICE-level abstractions.

- Slash SoC debug time by pinpointing mixed-mode design issues
- One solution for any chip, SoC, or IP building block
- Supports SystemVerilog, Verilog, SPICE, HSPICE, SPECTRE, ELDO, SPEF/DSPF, VCD, SDF, and more



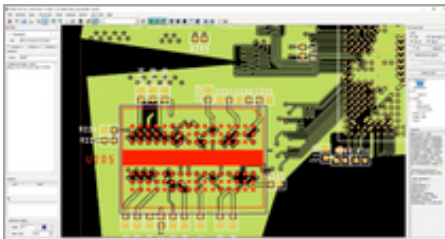
### Altair® SimLab® for Electronics

Optimize 3D IC assemblies with multiphysics analysis.

- A single integrated design process for stacked 2.5/3D ICs
- Analyze thermal, vibro-acoustic, EM, solder fatigue, drop impact, and more
- Thermal-aware chiplet floor planning
- Model BGA/C4 bumps and silicon interposer materials
- Supports ODB++ and GDS II formats

## Optimize Board-Level Designs

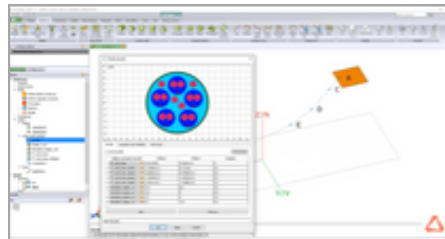
Collaborate from board layout to EMI/EMC using off-the-shelf components for faster embedded design.



### Altair® PolEx™

Early verification, analysis, and manufacturing checks for PCB challenges.

- Integrated design and verification environment
- EMI vulnerability and ESD protection
- Export test and fabrication data to production
- Open architecture supports Altair and third-party solvers



### Altair® Feko®

Solve high-frequency EM challenges in IoT and connected products.

- Simulate EMI/EMC and radiated emissions
- Model RF, Wi-Fi, Bluetooth, and 5G network and antennas
- Optimize antenna placement in compact systems
- Import data from [Altair® PolEx™](#) and other tools



### Altair® Embed™

Model-based design for nonlinear simulation and optimized system firmware.

- Off-the-shelf IP
- Convert diagrams to code
- Hardware-in-the-loop (HIL) testing
- Access thousands of ready-to-use models
- Simulate, analyze, and generate code for 1,200+ MCUs and processors

## Optimize EDA Scheduling and Workflows

Boost license and infrastructure efficiency to maximize ROI on EDA tools and talent with [Altair® HPCWorks®](#).



### Altair® Accelerator™

Event-driven, high-throughput job scheduling for semiconductor workloads.

- Maximize EDA tool use with license first scheduling policies
- Fairshare allocation, job preemption, and resource reservations
- Achieve up to a 6-10x throughput improvement with [hierarchical scheduling](#).



### Altair® FlowTracer™

Design flow development and execution with built-in visualization and debugging.

- Identify inherent parallelism to boost throughput and utilization
- Supports diverse design tools
- Dependency-aware scheduling ensures correct execution
- Color-coded visuals simplify monitoring and debugging



### Altair® Monitor™

Real-time insights into license use, job status, and more.

- Track job status and license usage in real time
- Use historical data for forecasting and planning
- Monitor shared licenses across regions
- Supports multiple license managers

## Visualization, Predictive Analytics, and AI

Make smarter, data-driven decisions with [Altair® RapidMiner®](#), the industry's most comprehensive data analytics and AI platform.



### Altair® RapidMiner®

Build an end-to-end AI fabric for your organization.

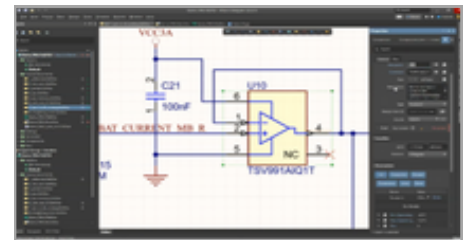
- Real-time dashboarding, reporting, and KPIs tracking
- Automated anomaly detection
- Predict remaining useful life (RUL)



### Altair® Panopticon™

Turn data into real-time insights for faster decisions.

- Develop and share dashboards
- Visualize time-critical streaming data
- Connect to databases, MQTT, Kafka, and more
- Spot trends, anomalies, and outliers instantly
- No-code, visual development



### CADY by Cady Solutions

AI-powered electrical schematic inspection.

- Export netlist and BOMs from any ECAD
- Automate schematic inspection and verification
- Follow connection instructions derived from component datasheets

## The Next Steps

Trusted for semiconductor design and electronic design automation, Altair's electronics solutions help you achieve perfect design faster.

Altair technology supports the complete engineering design and manufacturing life cycle, helping manufactures enhance product design, build smarter, higher-quality products, reduce costs, and accelerate time to market.

Learn more at [altair.com/electronic-system-design](https://altair.com/electronic-system-design)

Try our solutions today at [altair.com/altair-one](https://altair.com/altair-one)

