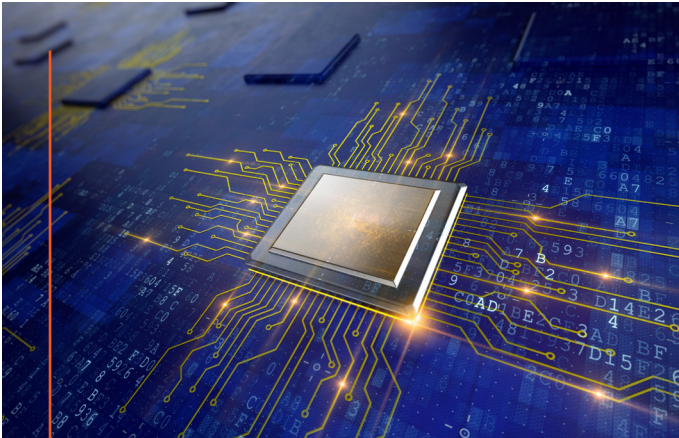# ALTAIR FOR ELECTRONICS

altair.com/electronics

Electronics are a part of our lives – both professionally and personally – with the latest gadgets delivering an immediate gateway to the world. Innovation, time to market and lower cost are the keys to electronics success, and the pressures to quickly deliver innovative products at lower cost is intense. Altair's simulation-driven design delivers a smarter approach to electronics product development.

SUPERCHARGING DESIGN PROCESSES

PCB Design

Altair PollEx™ is the most comprehensive and integrated set of PCB design viewing, analysis and verification tools for electrical, electronics and manufacturing engineers. PollEx transfers data flawlessly between the industry's most popular ECAD and simulation tools and enables many of the world's major electronics corporations to quickly visualize and review PCB designs. Its checking tools detect issues early to avoid product failures, and simplify manufacturing and assembly.

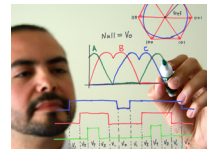Quickly view and explore in detail PCB design data from all major industry formats

Optimize EDA Job Scheduling

Trusted for semiconductor design and EDA, Altair's optimization suite for high-throughput computing environments helps you arrive at the perfect design faster. Altair Accelerator™ is the industry's fastest enterprise job scheduler with scalable, event-driven architecture for the highest throughput. Accelerator maximizes capacity utilization and can run millions of jobs

per day with sub-millisecond latency. Altair Allocator™ takes you global, providing seamless scheduling across geographies and business units. To identify the dependencies and inherent parallelism built into today's complex design flows, Altair FlowTracer™ uses a unique tracing technique to map and execute flows so you can design around roadblocks. And, to maximize utilization and right-size software investments, Altair Monitor™ provides real-time insight into software license availability, usage, job status, and more.

Develop Embedded Systems

Altair Embed® is a proven tool for developing embedded systems that automatically generates efficient code from block diagram models. Once you have a working simulation based developed with a system diagram, code is automatically generated specifically for your target microcontroller hardware. Testing a design using Hardware-in-the-Loop (HIL) is straightforward and the robust and reliable process requires no editing of code.

Kappa Electronics™ used Embed for high speed simulation of motor electronics and control dynamics to develop a novel method of sensorless field-oriented control

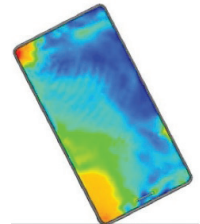# DELIGHTING CUSTOMERS

From Conceptual Design to Reality

Altair's Industrial Design Services can help customers with everything from user research to branding to design and prototyping. Altair Inspire Studio software enhances creativity. Users can combine different modeling techniques to effortlessly create and explore even the most challenging designs.

Antenna Design and Placement

Altair FEKO™ is widely used for the design of radio and TV, wireless, cellular, communication, remote keyless entry, tire pressure monitoring, satellite positioning, radars, RFID and other antennas. FEKO®'s Method of Moments (MoM) solver is used for antenna design. Model decomposition is possible with accelerated full-wave methods like Multi-level Fast Multipole Method (MLFMM), or asymptotic methods like Physical Optics (PO), Ray Launching Geometrical Optics (RL-GO) or Uniform Theory of Diffraction (UTD).

Device Compatibility

Electromagnetic compatibility (EMC) and electromagnetic interference (EMI) have become key topics with the proliferation of connected devices, both for component integration and satisfying EMC regulatory requirements. FEKO can simulate both the radiation and irradiation of cables, antennas, and devices to inform the design of effective shielding. FEKO also provides insight into the interactions of electromagnetic fields close to the body, ensuring safety while enough signal is radiated.

LG Electronics performs smartphone drop-test simulation in less than 24 hours with new automated approach

HELPING THE INNOVATORS INNOVATE, DRIVE BETTER DECISIONS, AND TURNING TODAY'S PROBLEMS INTO TOMORROW'S OPPORTUNITIES.

ALTAIR TRENDING IN:

Additive Manufacturing
Autonomous & ADAS
Big Data
Cloud Computing
Data Transformation
Digital Twin
e-Mobility

Exascale
GPU Solutions
Lightweighting
Machine Learning
Mechatronics
Smart Product Development
5G

"

Since we already had HyperMesh and HyperView in place, looking back at the effort involved in switching from our former solver to Radioss, the transition was relatively easy —

and we were up to speed, using Radioss in a real life project much earlier than expected."

Henrik Persson, Analyst, Sigma Connectivity

△ ALTAIR

Altair is a global technology company that provides software
and cloud solutions in the areas of product development, high
performance computing (HPC) and data analytics. Altair enables
organizations across broad industry segments to compete
more effectively in a connected world while creating
a more sustainable future.

To learn more, please visit altair.com