

# Laker™ Advanced Design Platform



## CUSTOM IC DESIGN SOLUTIONS

The Laker™ Advanced Design Platform (ADP) integrates the full-featured Laker schematic editor, open simulation console and LakerWave™ waveform analyzer into a single circuit design environment. It works seamlessly with our award-winning Laker Custom Layout Automation System and all of today's popular analog simulators to provide a complete solution for the rapid design of analog, mixed-signal, RF, memory, and custom digital IC designs. Laker ADP sets the industry benchmark as part of the most robust custom IC design and schematic-driven layout (SDL) environment based on the OpenAccess (OA) standard, delivering unsurpassed design productivity and tool interoperability.

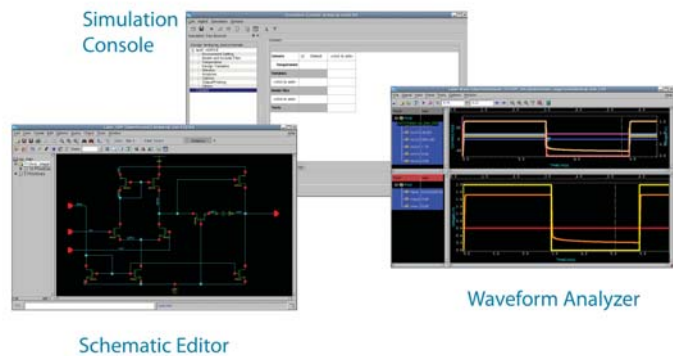
## Major Benefits

- **Automates** the design creation and analysis process using an intuitive interface
- **Accelerates** downstream layout and debug with unified design environment
- **Communicates** design intent and critical constraints to best-in-class SDL flow
- **Integrates** into existing flows with open environment and OA interoperability

## Major Features

### Schematic Editor

- Manual and automated symbol generation enables you to quickly create new or higher level device symbols
- Automatic symbol placement and wire connection quickly converts third-party netlists into readable schematics
- Design Hierarchy Browser maintains an up-to-date design hierarchy tree during schematic creation for real-time visualization and cross-probing with schematic
- Dynamic net highlighting and color differentiation between multiple nets across the hierarchy allows you to easily trace schematic data paths



- Drag-and-drop devices from the schematic window to the Laker layout window for rapid layout realization
- Optional Laker constraint editor allows you to analyze the schematic and automatically extract, edit or create layout constraints such as matching devices
- Pass constraints directly to the Laker layout system for a schematic-driven layout flow, enabling correct-by-design layout, placement and routing
- Advanced features include hierarchical search-and-replace, multi-sheet schematics, hierarchy editor, infix mode editing, and on-screen parameter editing

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### *Automatic Schematic Generator*

- Automatically create user-readable, hierarchical schematics for editing, ECO, or layout generation from CDL, SPICE, Verilog® gate level, or EDIF 200 netlists
- Import schematic data for smooth and accurate transfer of design intent, attributes and parameters from circuit design to mask design

### *Simulation Control Console*

- Easy-to-use control panel helps you to specify simulation parameters and execute simulation runs without leaving the Laker ADP environment
- Common interface lets you directly link to familiar, best-in-class simulators including HSPICE®, Spectre®, Eldo®, ADi™, SmartSpice, AFS and MSIM®
- Quickly add probe signals to the simulation console using a simple pick-up operation of a net or device in the schematic
- Back-annotate simulation results to schematic, including node voltage, branch current, device operating point and operating region values
- Corner analysis helps you to easily set up sweep variables, voltages, temperature and model variations to perform PVT simulations

### *LakerWave Waveform Analyzer*

- Powerful and interactive waveform analyzer supports both time domain (digital) and frequency domain (analog) for mixed-signal designers
- Multi-waveform viewing allows you to display multiple panels and plots

- Pre-selector easily locates data points for accelerated waveform measurement with gravity capability
- Real-time display of X/Y coordinates and the values for multiple measurements allows you to see results as you move the cursor
- FFT analysis capability helps you to evaluate harmonic distortion and other time domain to frequency domain operations
- Analog-to-digital and digital-to-analog conversion functions help to stitch digital domain and analog domain together for mixed-signal designs
- Create eye diagrams to perform jitter analysis
- Schematic-to-waveform cross probing enables intuitive, real-time analysis

### *Unmatched Interoperability*

Native OA implementation in Laker ADP maximizes designer productivity throughout the entire Laker OA tool flow from design through layout.

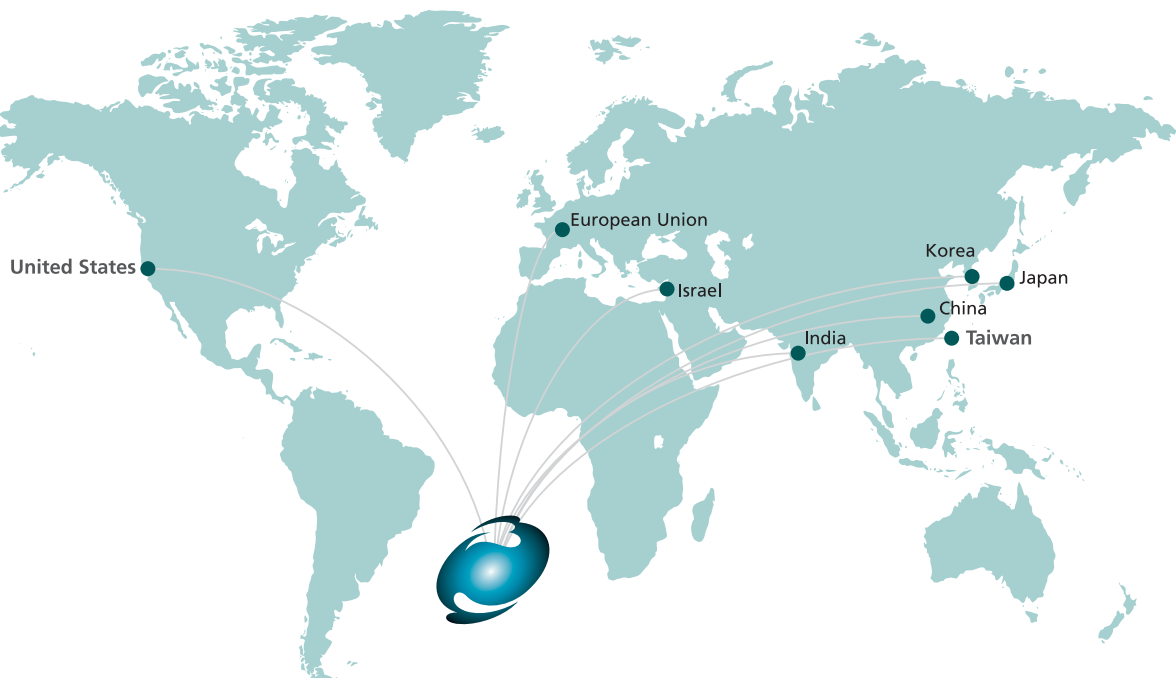
- Compatibility with OA-based schematic editors reduces the barrier to entry for new Laker ADP users
- Easily move between the Laker ADP and layout environments to explore and verify your custom designs
- Take full advantage of time-saving automation of the Laker layout platform and production-proven Laker SDL flow to build better designs faster
- Seamlessly integrate third-party tools into your Laker flow through OA application programming interface

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