

# Nisshinbo Micro Devices Inc. Accelerates IC/Module Designs using Cadence Custom IC and System Analysis Technology

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## Highlights:

- Nisshinbo Micro Devices Inc. utilized the Virtuoso Studio custom IC design platform to boost layout productivity and gain a 30% reduction in turnaround time for routing analog blocks
- Seamless integration of the Clarity 3D Solver for system-level EM analysis enabled a 12% simulation improvement

SAN JOSE, Calif.--(BUSINESS WIRE)-- Cadence Design Systems, Inc. (Nasdaq: CDNS) today announced that Nisshinbo Micro Devices Inc. has deployed multiple Cadence® solutions, including the AI-based Virtuoso® Studio custom IC design platform and Clarity™ 3D Solver, to improve design efficiency and reliably deliver products to market. Using the Clarity 3D Solver, Nisshinbo Micro Devices Inc. has achieved up to a 12% electromagnetic (EM) simulation runtime improvement when compared with their prior solution.

By deploying the AI-based Virtuoso Studio platform, Nisshinbo Micro Devices Inc. has access to a full suite of IC design solutions and tight integration with Cadence's multiphysics system analysis offerings. Nisshinbo Micro Devices Inc. uses the Virtuoso Schematic Editor for design capturing and the Virtuoso ADE Suite and the integrated Spectre® X Simulator to enable its circuit designers to manage corner simulations, statistical analyses, design centering, and circuit optimization. The Virtuoso Layout Suite contains multiple functions, such as concurrent layout editing and design review, that foster user collaboration. Concurrent layout editing allows the partitioning of a layout into many portions, assigning them to different users who can then work independently on their part of the project. Nisshinbo Micro Devices Inc. designers used this feature to gain a 30% reduction in turnaround time for

routing of complex analog blocks.

Nisshinbo Micro Devices Inc. has also adopted the Clarity 3D Solver for EM simulation and analysis of its module designs after confirming a 12% solver runtime advantage. With its novel, innovative and proprietary massively parallel matrix solver, the Clarity 3D Solver delivers near-linear scalability without any loss in accuracy. Capacity, accuracy, and simulation speed are all achieved concurrently with no need to trade off one for another to realize an optimum design solution in a reasonable time. Through its seamless integration and streamlined in-design analysis workflow with Cadence IC packaging and PCB design platforms, engineering productivity and turnaround time (TAT) are significantly improved.

“For us to continue shipping reliable analog IC and module products to the market in a timely manner, we need to keep improving our design efficiency,” said Yasutoshi Hirano, Manager, Design Technology Department, Technology Development Division, Electronic Devices Business Headquarters, Nisshinbo Micro Devices Inc. “Using Cadence Virtuoso Studio, the latest custom IC design solution, and the Cadence Clarity 3D Solver together, we have demonstrated a more comprehensive chip-to-package design environment for faster and more reliable product development.”

Cadence custom IC and system analysis solutions support the Cadence Intelligent System Design™ strategy, accelerating system innovation. For more information, please visit <http://www.cadence.com/go/NisshinboSuccess>.

## About Cadence

Cadence is a pivotal leader in electronic systems design, building upon more than 30 years of computational software expertise. The company applies its underlying Intelligent System Design strategy to deliver software, hardware and IP that turn design concepts into reality. Cadence customers are the world’s most innovative companies, delivering extraordinary electronic products from chips to boards to complete systems for the most dynamic market applications, including hyperscale computing, 5G communications, automotive, mobile, aerospace, consumer, industrial and healthcare. For nine years in a row, Fortune magazine has named Cadence one of the 100 Best Companies to Work For. Learn more at [cadence.com](http://cadence.com).

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