

Centrios HX Circuit Edit System

Rapid prototyping, debugging, and repair for even the most advanced technology nodes

As design and integration complexity rise with each new technology node, circuit edit tools are strategically important for managing costs, avoiding schedule delays, and optimizing product performance and functionality. With the right tools, workflows and techniques, circuit editing can help you reduce mask spins, rapidly prototype, and support customer engagements.

Designed specifically for complex semiconductor circuit editing, the Thermo Scientific™ Centrios™ HX Circuit Edit System provides industry leading precision, control, and performance for the semiconductor devices of today and tomorrow.

The Centrios HX Circuit Edit System is designed with the most advanced front and backside edit capabilities, offering unparalleled editing control, precision, and stability.

Featuring the new Thermo Scientific Celta™ Ion Column, the Centrios HX System delivers high resolution at low beam currents and low landing energies, allowing you to perform edits accurately and maintain device integrity. Using an innovative dual-nozzle gas-delivery system with our broadest portfolio of chemistries, and the latest focused ion beam (FIB) technology, the Centrios HX System enables industry leading high-precision etching and fast, efficient editing.

Specifications	
Ion column	Thermo Scientific Celta Ion Column
Image resolution	2.5 nm at 30 kV
Beam current	50 nA maximum current
Stage	5-axes motorized eucentric <ul style="list-style-type: none"> • X, Y motion: 100 mm • Tilt: -10° to 60° • Rotation: 360°
End-point detection	Simultaneous SE/specimen current

Key Benefits

High imaging and milling resolution. Featuring the Celta FIB column, the Centrios HX provides high resolution, even at lower beam currents for effective, safe edits.

Enhanced milling precision and control. Planarity/uniformity, delayering/etch stopping, and high-acuity creation of high-aspect-ratio vias using a simultaneous dual-nozzle gas delivery system and proprietary gas chemistry portfolio.

A dedicated circuit edit platform. Designed specifically for circuit editing, the Centrios HX Circuit Edit Systems integrates key components, such as gas chemistry delivery, enabling optimized manual and automated applications.

Low cost of operation. Thermo Scientific NEXS CAD Software for navigation and Thermo Scientific iFAST Software customize automation for improve efficiency and ease of use.



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