

Electron Beam Lithography System

ELS-ORCA

A Revolutionary Leap in 30kV Electron Beam Lithography Systems

Elevate Your Lithography Capabilities with a Cost-Effective Cutting-Edge Platform



ELS-ORCA, 30kV, 8inch
Single auto loader

A 30kV EBL Column Design - Drawing on Four Decades of Experience

The ELS-ORCA is a 30 kV electron beam lithography system that can be customized with various options such as automatic focusing, dynamic focus correction, and the flexibility to increase acceleration voltage up to 50kV. With a combination of these options, the ELS-ORCA becomes a tailored system which will meet any researcher's individual requirements.

User-friendly EBL Software

The Elionix 'elms' software is a comprehensive suite of modules such as CAD data conversion, beam adjustment, writing and SEM observation. This modular system makes necessary functions more reachable and your workflow more productive. The account management module of the elms (Elionix Lithography Management System) software provides a safeguarded and intuitive experience for all different levels of EBL users.

High Resolution SEM Imaging

The beam retarding option of the ELS-ORCA allows for high-resolution SEM observations. With its equivalent low accelerating voltage of an SEM system, the ELS-ORCA enables you to observe its maximum write area on an 8-inch wafer. The ELS-ORCA also enables automatic observation by use of CAD data coordinates prepared for exposure, which aides in precisely calibrating your lithographic processes.

Specifications

Electron Gun	ZrO/W Thermal Field Emitter	Minimum Shot Pitch	0.1 nm	Software	elms • Beam conditions • Exposure Schedule • Pattern Data Converter • Account Management • Python Scripting
Accelerating Voltage	1 ~ 30 kV 1 ~ 50 kV*	Maximum Field Size	1000 μm^2		
Minimum Beam Spot Size	D 2.0 nm D 1.6 nm	Maximum Sample Size	8" Wafer		
Minimum Line Width	15 nm 10 nm	Maximum Writing Capability	150mmx150mm		
Beam Current	5 pA ~ 80 nA	Loading System	Single Autoloader		
Writing Speed	100 MHz				



* Option

