

Electron Beam Lithography System ELS-ORCA

Electron Beam Lithography System

Brand-New Entry Model of Electron Beam Lithography System for R&D



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

Various Options, Tailored Specifications

The ELS-ORCA is the 30 kV electron beam lithography system which can be customized with various options such as the 50 kV accelerating voltage, dynamic focusing · stigma and the focus adjustment by height sensors. With a combination of these options, the ELS-ORCA becomes a tailored system which meets researcher's individual requirements.

User-friendly Software

The new machine control software called "elms" is preinstalled onto the ELS-ORCA system. 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 software allows for restricting each of functions depending on users.

Retarding Option for SEM Imaging

The retarding option of the ELS-ORCA allows for low-damage high-resolution SEM observations. With its equivalent low accelerating voltage of an SEM system, the ELS-ORCA enables you to observe up to 8-inch wafers with capability of 6-inch. The ELS-ORCA also enables automatic observation by adjusting coordinates with CAD data prepared for exposure.

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	150mm×150mm				
Beam Current	5 pA ~ 80 nA		Loading System	Single Autoloader				
Writing Speed	100 MHz							

* Option

