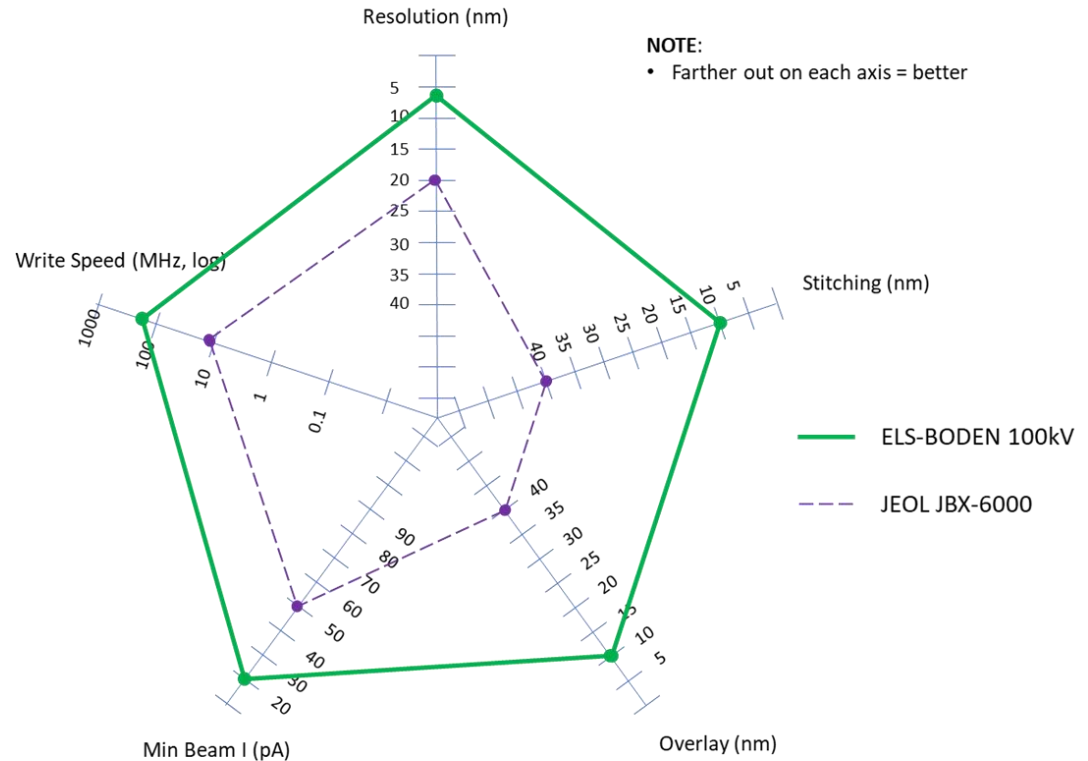


Elionix ELS-BODEN 100kV

Specification

<i>Resolution</i>	6nm @ 100um field size
<i>Beam Positioning Resolution</i>	0.1nm @ 100um field size
<i>Minimum Beam Diameter</i>	1.8nm
<i>Beam Current</i>	20pA to 100nA
<i>Substrate size</i>	pieces to 200x200mm
<i>Field Sizes</i>	100x100um to 1x1mm
<i>Overlay</i>	±10nm @ 100um field size
<i>Field Stitching</i>	±10nm @ 100um field size
<i>Emitter Source</i>	ZrO/W thermal field
<i>Pattern Generator</i>	200MHz
<i>Off-axis, Full Field Correction</i>	Yes
<i>Airlock magazine</i>	6 position

100kV ELS-BODEN v 50kV JEOL 6000 Comparison



ELS-BODEN brings New Capabilities to NanoFab EBL Nanolithography

Feature:

100kV Accelerating Voltage:

Laser Height Sensor:

Circle/slant line pattern generator:

Dynamic auto-focus/stigmatism:

GenISys BEAMER Software:

200MHz Pattern Generator:

Up to 200mm sample capability:

Capability:

Capable of generating patterns with a line width of 6nm. The system provides a stable 1.8nm electron beam using high beam current at 100kV. The fine line patterns can be drawn using commercially available resists. Examples can be viewed [here](#).

Laser controls sample height to keep sample in focus during exposure reducing stitching and overlay errors.

Beam raster optimization for non-rectangle pattern features.

Enables uniform large field writing for small patterns at high beam currents, maintains pattern integrity out to the edge of the field.

CAD prep and PEC software to result in more uniform exposure at all feature sizes. Read more [here](#).

Shorter exposure time, faster sample turn-around.

Stage movement range: X, Y: 230mm x 210mm, Z: 10mm means full 200mm wafer exposure capability. Sample piece chuck for small substrates.