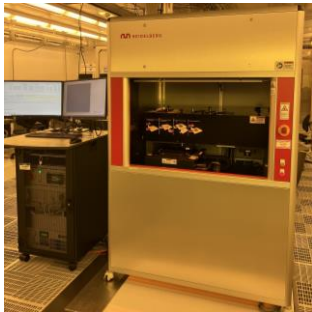
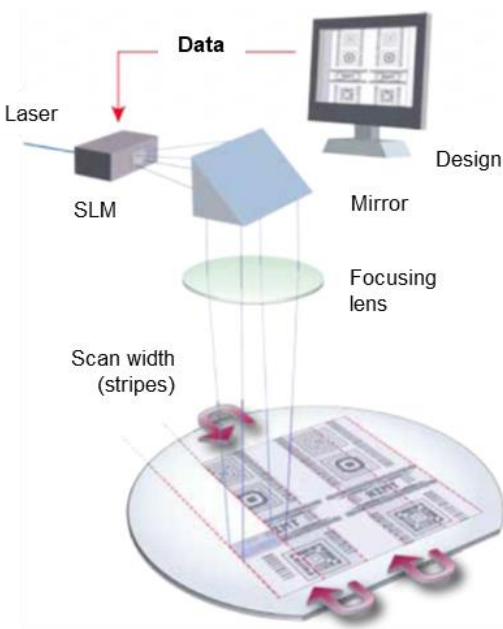


## Heidelberg MLA 150: Maskless Aligner



The Heidelberg MLA 150 Maskless Aligner is a high-speed direct laser writer for photolithography without contact on a substrate. It utilizes diode lasers and a high-precision stage to write the laser on a substrate from design files, which enables rapid prototyping of tiny features and photomask generation.

### Work flow



**Design file generation**

- (GDSII, DXF, CIS, and Gerber formats)



**Job file generation in the Heidelberg MLA150 PC**

- Input laser exposure parameters
- Convert design to machine-readable data



**Exposure**

- **Standard:** binary lithography
- **Series:** dose and focus tests for optimization
- **Draw:** adding features to a previously patterned substrate such as lines, shapes, or bitmap.

### System features

Laser wavelength (nm)	375
Substrate size (mm <sup>2</sup> )	5X5 – 200X200
Substrate thickness (mm)	0-12
Minimum feature size (µm)	0.6
Global 2 <sup>nd</sup> layer alignment (3σ, nm)	500
Local 2 <sup>nd</sup> layer alignment (3σ, nm)	100
Grayscale	128 gray levels