

Dilase 750

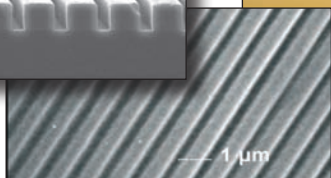
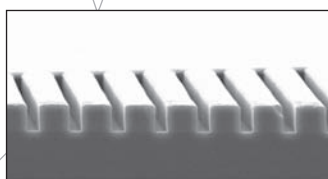
An Advanced Direct Laser Lithography System For High Resolution, Custom Applications



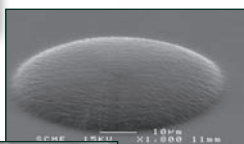
Dilase 750 is a very high-end and fully customizable high-definition laser lithography equipment. This complete direct laser processing system writes patterns in resin layers photosensitive to blue or ultraviolet lasers by using one or more fixed sources available at wavelengths of 325 nm, 375 nm, 405 nm or 445 nm. The exposure surface can extend to 12 inches, with a standart maximum trajectory deviation of 100 nm. The different available optical sub-assemblies offer different laser spot size options, all the way down to 500 nm wide. This high performance system is totally custom-made, to fit the specific prototyping or manufacturing needs of the customer. Dilase 750 is compatible with most commercially available photoresists, such as SU8, Shipley and AZ resins. It is merely optimized for use with the K-CL resin developed by Kloé for fine resolution and high form-factor lithographic microstructure applications.

Applications

3D microstructuration

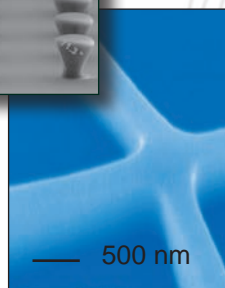


Waveguide network

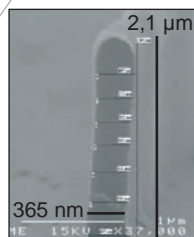


Microfluidic

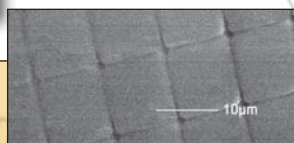
Nanostructure



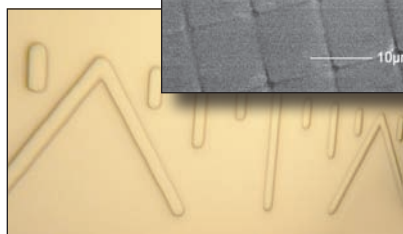
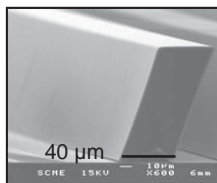
Optical interconnect



Diffractive grating



Microlens



Pixelization

Features

- Size : 1801 x 1204 x 1790 mm
: 71 x 47.5 x 70.5 inches
- Integrated computer control interfaces (MS Windows based / windows OS)
- Available laser sources : 325, 375, 405 or 445 nm
- 1 to 3 optical sub-assemblies
- Video assisted positioning system
- Data formats supported : LWI (Kloé Softwave format), DXF, GDS2
- Automated focusing setting
- Integrated design software : Kloé Design V.2

Performances

Linear writing speed	> 500 mm.s ⁻¹
Stage travel resolution	40 nm - 100 nm
Repeatability	100 nm
Wafer writing area	1 to 12 inches
Substrate thickness	250 µm to 10 mm
Laser spot size (1 or 2)	0.5 µm to 100 µm
Form factor	Minimum 10
Realignment precision	500 nm

