

Dilase 250

A High Resolution Direct Laser Lithography System For Fast prototyping And Maskless Fabrication

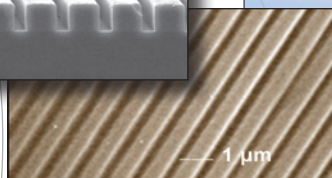
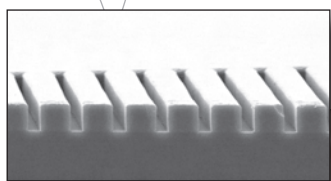


The Dilase 250 is a practical, table-top high definition laser lithography system. Lithographic patterns can be written in resin layers, photosensitive to blue or ultraviolet laser wavelengths, by means of a fixed continuous laser source emitting at 375 or 405 nm. The writing surface can extend up to 4 inches, while the minimum reachable feature size (width) is 2 μm .

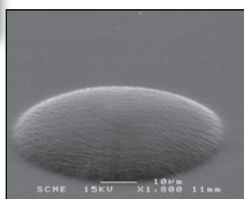
This equipment offers both vectorial and scanning writing modes and ensures permanent trajectory respect within a maximum 100 nm deviation range. The included motorized optical focusing system offers fast and fine focalisation setting to match various substrates thicknesses requirements, from 150 μm to 2 mm. This compact system also features a wafer loading and unloading system to the substrate chamber, providing improved cleanliness, higher throughput and increased user safety. The Dilase 250 system is compatible with most commercially available photoresists, such as SU8, Shipley and AZ resins. It is merely optimized for use with the K-CL resins developed by KLOE for lithographic microstructure applications.

Applications

3D microstructuration

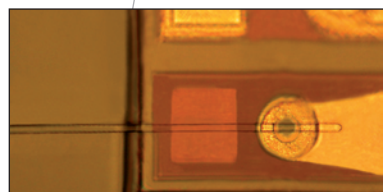


Waveguide network

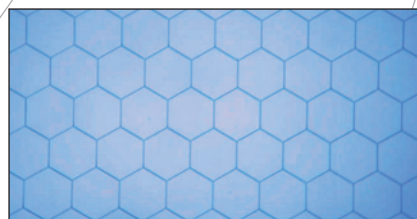


Microfluidic

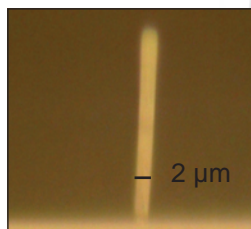
Nanostructure



Optical interconnect

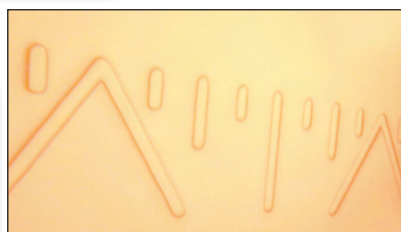
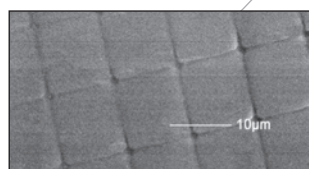


Microlens



Diffractive grating

Pixelization



Features

- Compact footprint : 550 x 670 x 700 mm
: 21.6 x 26.4 x 27.5 inches
- PC control interface
- Available laser sources : 375 or 405nm
- Optical subassembly shapes and homogenizes laser beam
- 1 optical spot size
- Automated wafer loading and unloading system
- Video positioning system
- Data formats supported : LWI (Kloé Softwave format), DXF and GDS2
- Automated focusing setting
- Integrated design software : Kloé Design V.2

Performances

Linear writing speed	> 100mm.s ⁻¹
Stage travel resolution	100nm
Repeatability	100nm
Wafer writing area	1 to 4 inches
Substrate thickness	150 μm to 2mm
Laser spot size	2 μm to 100 μm
Form factor	Minimum 10
Standard realignment precision	2 μm

