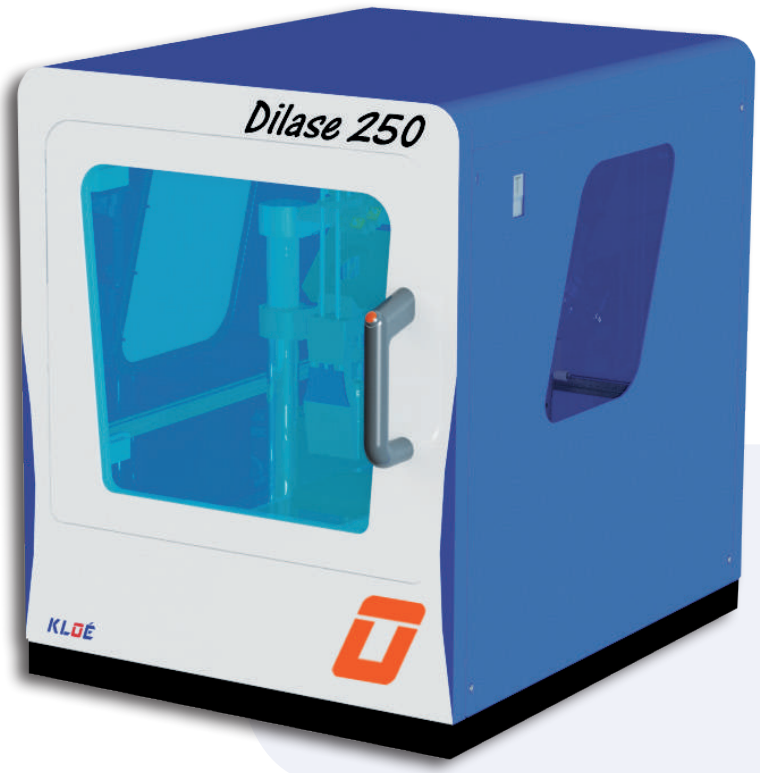
KLOÉ

Keys to your expectation in Optics

Dilase 250

Table-top direct laser lithography system

- Very compact table top system
- Mask fabrication and direct writing
- Laser source at 375nm or 405nm
- Compatible with all photoresists
- High aspect ratio : 1x20



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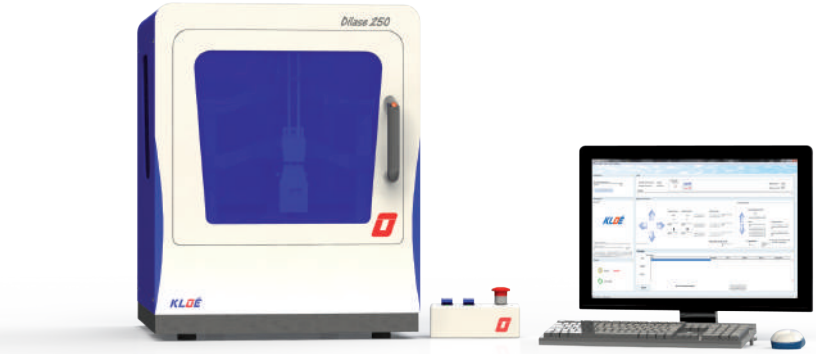
Dilase 250

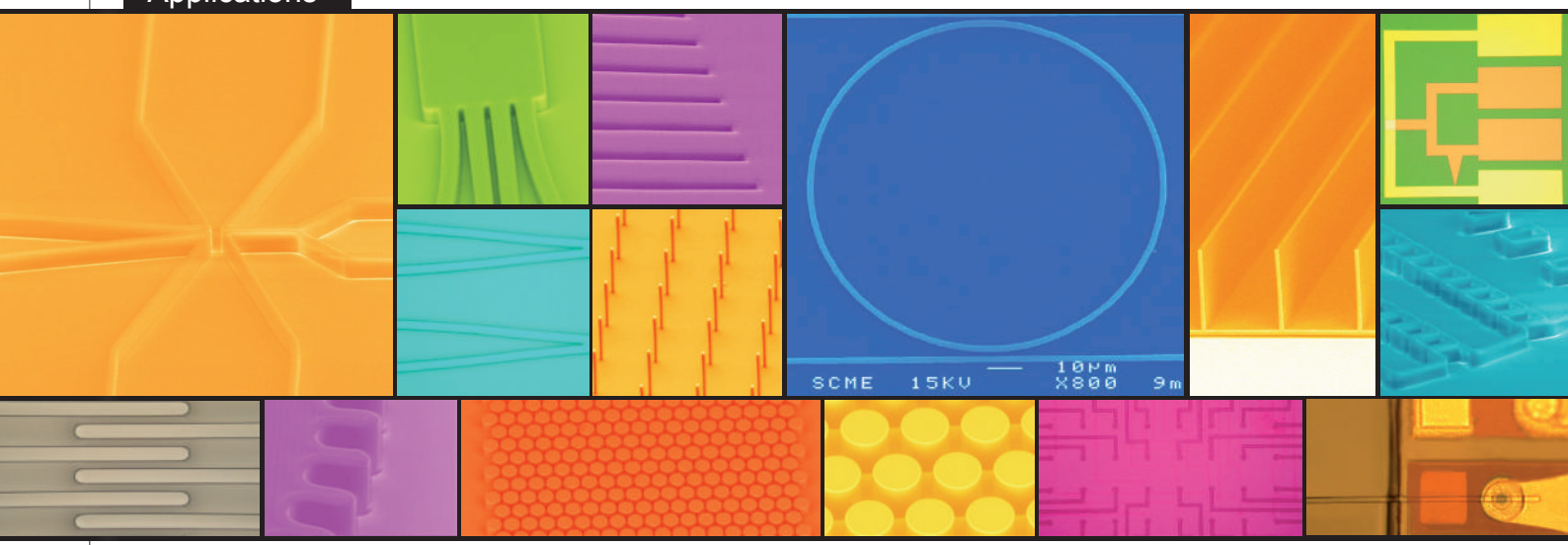
The Dilase 250 is a practical, table-top high resolution laser lithography system. Lithographic microstructures can thus be written with Dilase 250 in photoresists, sensitive to either blue or ultraviolet lasers wavelengths, by means of a fixed continous laser source emitting at 375 or 405 nm. The writing surface can extend up to 4 inches, while the minimum achievable feature size (width) is 1 µm.
This equipment offers both vectorial and scanning writing modes and ensures a trajectory within a 100 nm maximum deviation range. The included motorized optical focusing system offers fast and fine focalisation setting to match various substrates thicknesses requirements, from 150 µm to 5 mm. This compact system also provides optional wafer loading and unloading system to the substrate chamber, enabling improved cleanliness, higher throughput and user safety. The Dilase 250 system is compatible with most of the commercially available photoresists, such as SU8, Shipley and AZ resists.
It is merely optimized for use with the K-CL resists developed by KLOE for high aspect ratio microstructuration applications (1x20), by laser lithography.

Features

- Compact footprint : 550 x 670 x 700 mm.
- PC control interface.
- Available laser sources : 375 or 405 nm.
- Optical subassembly shapes and homogenizes the laser beam.
- 1 optical spot size available.
- High resolution video positioning system.
- Data formats supported : LWI (Kloé Design format), DXF and GDS2.
- Automated focusing setting.
- Integrated design software : Kloé Design V.2.
- 2 modes of write : vectorial and rater scan.



Applications



Performances

Linear writing speed	> 100 mm.s^{-1}
Stage travel resolution	100 nm
Repeatability	100 nm
Wafer writing area	1 to 4 inches
Substrate thickness	150 µm to 5 mm
Laser spot size	1µm to 50 µm
Form factor	Minimum 10
Standard multilevel alignment precision	1µm