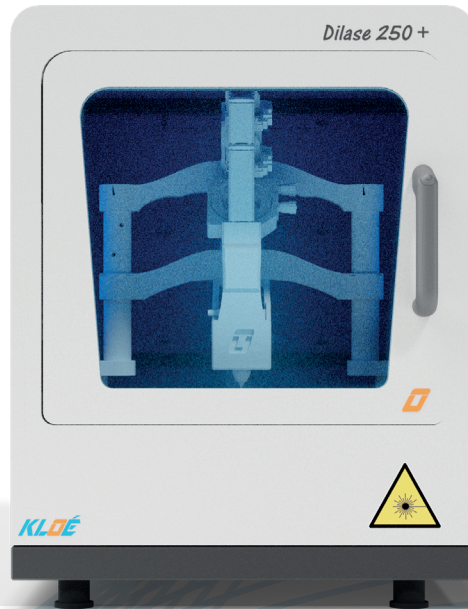


# Direct Laser Writer

## *Dilase 250*

Table-top system



**“1 $\mu$ m linewidth micro-structures,  
and even less”**

**Custom feature size: min. 1 $\mu$ m**

**Minimum aspect ratio: 1x20**

**100 x 100mm<sup>2</sup> exposure area**

**Custom laser source: 375nm or 405nm**

**Multilayer alignment accuracy < 1 $\mu$ m**

**Maximum linear speed up to 150mm/s**

**3 write modes:** vector mode, scanning mode  
and a combination of both

**Compatible with all UV photoresists**

***In option***

***Choose your feature size in the range 1 $\mu$ m to 50 $\mu$ m  
Anti-vibration table***

# Efficient, compact *and* table-top laser lithography system, *Dilase 250* is designed to achieve high resolution, down to 1µm feature size.

## Custom feature size

Choose from **1µm** (High Resolution) to **50µm** (Low Resolution).

## High aspect ratio: 1x20

The **high depth of focus** resulting from the specific optical treatment line designed by Kloe, allows to write into thick films as easily than into thin films with the same edge verticality and **very low roughness**.

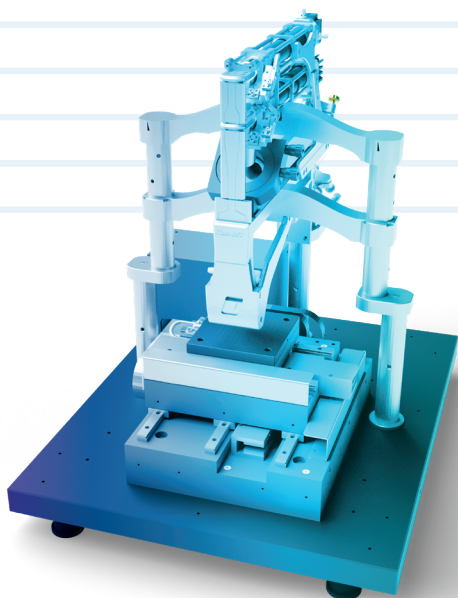
## Writing modes: vector, scanning and a combination of both

Vectorial writing mode ensures a **perfect rendering of edges** without stitching nor roughness.

The combination of both modes by fast filling in scanning mode and the finalizing contours in vector mode provides perfectly square pattern edges with **no roughness**.

## One-pass laser processing

No roughness induced by vertical stitching, **no need to adjust the focusing point**, between 2 samples.



## Performances

Nominal feature size	Custom from 1µm to 50µm
Maximum linear speed	up to 150mm.s-1
Address grid	100nm
Repeatability	100nm
Aspect ratio	Min. 1x20*
Multilayer alignment accuracy	< 1µm
Absolute positioning accuracy	3µm / 100mm
Orthogonality X/Y	< 50µRad

\*With 1µm feature size

## Exposure area/Writing Surf.

Sample sizes	From 3x3mm <sup>2</sup> to 4", up to 5" for square substrates
Substrate thicknesses	From 250µm to 10mm
Exposure area	100 x 100 mm <sup>2</sup>
Compatible photoresists	All UV photoresists

## Laser source

Available wavelengths	Custom: 375nm or 405nm
Available laser units	1
Available spot sizes	1
Adjustable laser power	From 10% to 100%
Laser lifetime	375nm laser: 5 000 hours / 405nm laser: 10 000 hours

## Usage features

Compatible files format	GDSII - DXF
Integrated software suite	KloeDesign (file converter software), DFM (file manager software), DilaseSoft (piloting software)
Write modes	Vector mode, Scanning mode and a combination of both
Laser security class	3b
Anti-vibration table	In option
Vacuum supply	In option
Multilayer alignment function	Standard
Motorized focusing stage	Included
Automated focusing setting	Included

## General specifications

Size (L x W x Ht)	550 x 740 x 710mm
Weight	120kg / 265lbs
Power supply	100-110V / 220-240V - 50Hz
Power consumption	< 300 W
Operating temperature	From 15° to 30°C / Stability +/- 1°C

