Direct Laser Writer

Dilase 650

All-in-one Equipment

"Offering a maximum of flexibility, with 1 or 2 spot sizes, 1 or 2 laser sources"

Custom feature size: min. 0.5µm **Minimum aspect ratio: 1x20** from 1µm feature size

100 x 100mm² / 150 x 150mm² exposure area **Custom laser source: 375nm or 405nm**

Multilayer alignment accuracy < 0.5µm **Maximum linear speed up to 500mm/s**

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

Compatible with all UV photoresists

In option

1x50 aspect ratio
Backside alignment
2 laser sources, 2 different spot sizes per laser
Automatic switch between the spot sizes

KLOÉ

Dilase 650 can be delivered with **1 or 2 different laser sources** and each of them can be combined with **1 or 2 different spot sizes**

Custom feature size

Choose from **1µm** (High Resolution) to **50µm** (Low Resolution), and even **0.5µm** (optional).

High aspect ratio: 1x20

High aspect ratio head optional: 1x50

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**.

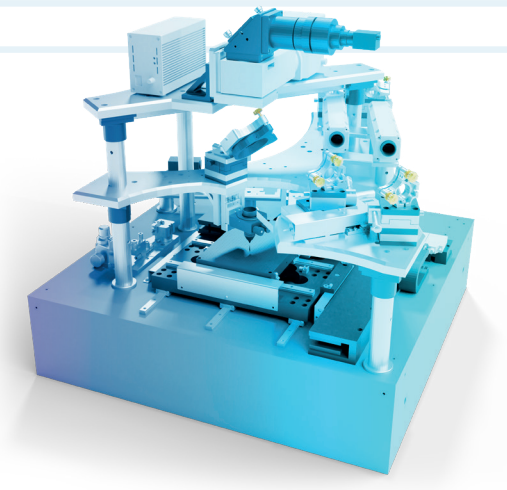
Writing modes: vector, scanning and a combination of both

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	*Dilase 650*
Nominal feature size	Custom from 1µm to 50µm - 0.5µm optional
Maximum linear speed	up to 500mm.s-1
Address grid	100nm standard - 40nm optional
Repeatability	100nm
Aspect ratio	Min. 1x20* standard - 1x50 optional
Multilayer alignment accuracy	< 0.5µm
Absolute positioning accuracy	3µm / 100mm
Orthogonality X/Y	< 50µRad

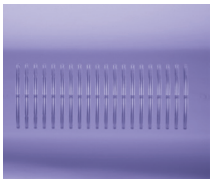
*With 1µm feature size

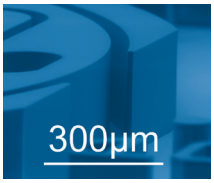
Exposure area/Writing Surf.	
Sample sizes	From 3x3mm² to 4" or 6", 5" or 7" for square substrates
Substrate thicknesses	From 250µm to 10mm
Exposure area	100 x 100mm² or 150 x 150mm²
Compatible photoresists	All UV photoresists

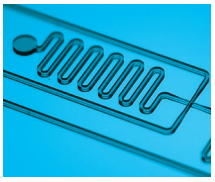
Laser source	
Available wavelengths	Custom: 375nm or 405nm
Available laser units	1 or 2
Available spot sizes	1 or 2
Adjustable laser power	From 10% to 100%
Laser lifetime	375nm laser: 5 000 hours / 405nm laser: 10 000 hours

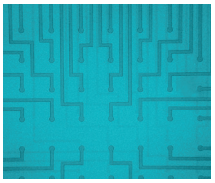
Usage features	
Compatible files format	GDSII - DXF
Integrated software suite	KloeDesign (file converter software), DFM (file manager software), DilaseSoft (piloting software)
Write modes	Vector mode, Scanning mode and a combination of both
Laser security class	3b
Anti-vibration table	Integrated
Vacuum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

General specifications	
Size (L x W x Ht)	935 x 1300 x 1620mm
Weight	800kg / 1763lbs
Power supply	100-110V / 220-240V - 50Hz
Power consumption	< 400 W
Operating temperature	From 15° to 30°C / Stability +/- 1°C









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