UV-KUB 3

4" version
6" version

The new generation of Mask Aligner

*The mask aligner UV-KUB 3 is the **first mask alignment system equipped with a UV-LED source**, that provide an **unrivalled collimation** and **homogenous exposure**, on the international market.*

This new generation mask aligner is fully operated by a **touch-screen** for exposure and is controlled with a **joypad** for alignment operations. **Entirely secure** thanks to its dust-proof hood, this equipment is the only solution on the market that democratizes precision photolithography **without requiring a cleanroom type environment.**

Technological breakthroughs

High quality collimation

Divergence angle below 2° offers the possibility to work in masking mode on thick layers without altering the rendering of edges of the patterns.

This **high-quality collimation** allows to reach resolution down to the micrometre scale **without needing a vacuum contact mode.**

LED technology

Perfectly **monochromatic** exposure light source.

A **cold UV source**, prevents undesirable thermal effects.

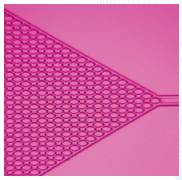
Operate in **continuous or pulse mode.**

Long lifetime: the uv-led light source is no longer considered as a consumable item.

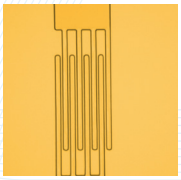
Resolution & alignment precision

This new generation of mask aligner enables to realize microstructures **below 1µm** over the entire 4" or 6" work surface with an **alignment precision of less than 1µm**.

Related applications



Microfluidics



Microelectronics

Photonics

Surface functionalization

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Performances

Resolution	1µm
Alignment accuracy	1µm
Divergence angle	< 2°
Number of programmable cycles	100
Exposure cycles (continuous or cyclic)	From 1s to 1h
Processes	Hard (physical) or soft (proximity) contact processes
Visualization system resolution	1,5µm
θ substrate displacement resolution	5.10-4°
XYZ substrate displacement resolution	0,4µm

UV-LED source

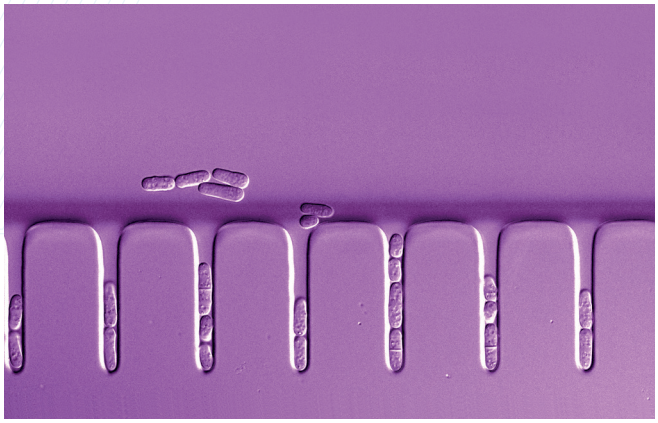
Wavelength	365nm +/- 5nm
Homogeneous exposure	+/- 5%
Lifetime of the LEDS	> 10 000 hours

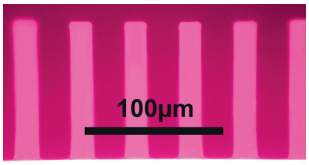
Working/Writing surfaces

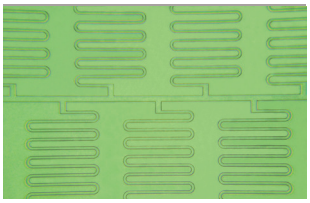
Working surface	4" or 6" wafers
Accepted masks size	up to Ø 5" or Ø 7" respectively with 4" and 6" version
Accepted substrate size	Ø 2" - Ø 4" - Ø 6" and 50 x 50mm - 100 x 100mm
Mask/substrate measuring distance resolution	0,5µm
Heating of the wafer during the insolation	< 1°C
Compatible photoresist	SU8, Shipley, AZ Resist, K-CL resist (developed by Kloe)

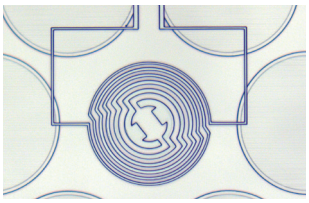
Other features

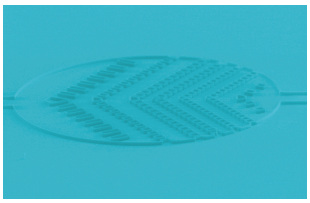
- Size: 475(L) x 480(W) x 515(H)mm
- Weight: 55kg / 121lbs
- Colour touchscreen: 15.6"
- Power density: 35mW/cm² +/- 10%
- Power supply: 100V/240V - 50Hz/60Hz
- Consumption: 180W
- Compatible with chrome and flexible film photomask

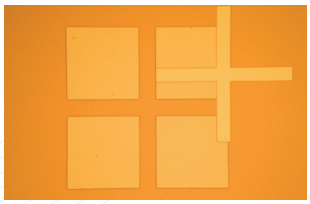


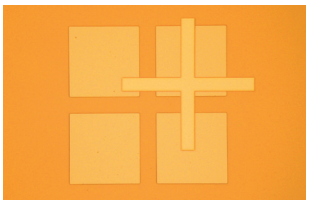


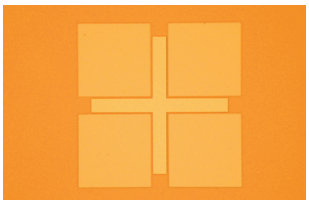


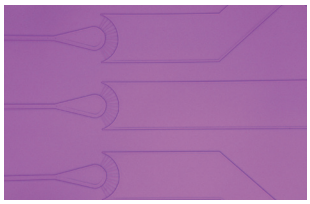












KLOE SA | 2-4 rue des Arbousiers 34270 St-Mathieu-de-Tréviers FRANCE | Tel: (33) (0)4 67 82 19 10 | contact@kloe-france.com | www.kloe-france.com
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