

**Manufacturer**  
 KLOÉ S.A.

**Model**  
 UV-KUB3



## Mask aligner



### UV-Photolithography for microfabrication

UV-photolithography is widely used for MEMs, microfluidics and optoelectronics applications.

The KUB3 accepts small samples, as glass covers or slides, and large ones, till 100 mm. Its cold LED source at 365nm, assures a homogeneous exposure on the whole area, compatible with most used UV- sensitive photoresists.

### Technical specifications

- Cold UV source:
  - LED of  $365 \pm 5$  nm with adjustable power to a maximum of  $35 \text{ mW/cm}^2 \pm 10\%$
  - Divergence angle  $< 1.5^\circ$ . Homogeneous exposure on an area of  $100 \text{ mm} \times 100 \text{ mm}$
  - Temperature variation inside the exposure chamber  $< 1^\circ\text{C}$
- Optical resolution using Cr mask:  $1 \mu\text{m}$
- Alignment resolution  $< 2 \mu\text{m}$
- Resolution in Z movement:  $0.5 \mu\text{m}$
- Resolution in XY movement:  $0.2 \mu\text{m}$
- Rotation of the sample holder around Z axis
- Exposure modes: Pulsed and continuous
- Contact modes: Soft and hard
- Compatible with 5" Cr or acetate masks
- Anti-reflective substrate for samples till 100 mm edge size
- Substrate thickness allowed: from  $250 \mu\text{m}$  to 4 mm thick, for 4" wafers and from  $400 \mu\text{m}$  to 4 mm thick, for smaller samples
- 2 HR cameras with zoom for alignment, with maximum resolution of  $1.5 \mu\text{m}$
- Joypad for substrate-to-mask distance control and alignment
- Colour touchscreen of 15.6"

### Material available\*

- Cr masks can be fabricated at the MicroFab Space under demand (ask for a quote on [microfab@ibecbarcelona.eu](mailto:microfab@ibecbarcelona.eu))
- Photoresists: AZ 5214, AZ 1512, SU8 2010, SU8 2050, SU8 3050, SU8 2100
- Adhesion promoters: TI prime, OmniCoat
- Developers: AZ 400K developer, AZ 726MIF developer, SU8 developer
- Removers: AZ 100 remover, Remover PG

\*Possibility to implement new materials under demand.

[www.ibecbarcelona.eu/corefacilities](http://www.ibecbarcelona.eu/corefacilities)

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